Michael Baker
INTERNATIONAL

Appendix A: Certified EIR

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FINAL ENVIRONMENTAL IMPACT REPORT

Meadowood Project
GPA04-002; SP04-001; R04-004; TM5354; S04-005, S04-006, S04-007;
P08-023 and Log No. ER 04-02-004
SCH #2004051028

Lead Agency:

County of San Diego
Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego, CA 92123

December 14, 2011

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LIST OF PERSONS, ORGANIZATIONS, AND PUBLIC AGENCIES
THAT COMMENTED ON THE DRAFT ENVIRONMENTAL IMPACT REPORT (EIR)
MEADOWOOD PROJECT
GPA04-02; SP04-01;R04-004; TM5354; S04-005, S04-006, S04-007;
AND LOG NO. ER 04-02-004
STATE CLEARINGHOUSE NO. 2004051028

A draft version of this EIR was circulated for public review from August 27, 2009 through October 12, 2009. The following is a listing of the names and addresses of persons, organizations, and public agencies that commented during this public review period.

	NAME	**ADDRESS**
FEDERAL AGENCIES		
A	U.S. Fish and Wildlife Service/ California Department of Fish and Game	U.S. Fish and Wildlife Service 6010 Hidden Valley Road, S.101 Carlsbad, CA 92011 CA Dept. of Fish and Game 4949 Viewridge Avenue San Diego, CA 92123
STATE AGENCIES		
B	Caltrans	Dept. of Transportation, Dist. 11 Planning Division 4050 Taylor Street. MS 240 San Diego, CA 92110
C	Department of Conservation	Div. of Land Resource Protection 801 K Street. MS 18-01 Sacramento, CA 95814
D	Department of Toxic Substances Control	5796 Corporate Avenue Cypress, CA 90630
E	Native American Heritage Commission	915 Capitol Mall, Room 364 Sacramento, CA 95814
F	Natural Resources Agency/CAL FIRE	San Diego Unit PO Box 1560 Boulevard, CA 91905

COUNTY, CITY, AND OTHER LOCAL AGENCIES

G	San Diego LAFCO	1600 Pacific Highway, Room 452 San Diego, CA 92101
H	San Luis Rey Municipal Water District	c/o Smith Trager, LLP 19712 MacArthur Blvd., S. 120 Irvine, CA 92612
I	Valley Center Water District	29300 Valley Center Road PO Box 67 Valley Center, CA 92082

ORGANIZATIONS

J	Endangered Habitats League	8424 Santa Monica Blvd. Suite A-592 Los Angeles, CA 90069
K	Fallbrook Community Planning Group	205 Calle Linda Fallbrook, CA 92028
L	San Diego County Archaeological Society	PO Box 81106 San Diego, CA 92138
M	San Luis Rey Band of Luiseno Mission Indians	1889 Sunset Drive Vista, CA 92081

INDIVIDUALS

N	Mark Dillon on behalf of Pappas Investments	Gatzke Dillon & Balance, LLP 1525 Faraday Avenue, #150 Carlsbad, CA 92008
O	Sandy Smith	Sandy_Smith@casb. uscourts.gov

LATE COMMENTS

P	SANDAG	401 B Street, S. 800 San Diego, CA 92101

Q	San Diego County Water Authority	4677 Overland Avenue San Diego, CA 92123

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10/08/2009 08:14 FAX 7604315902 US FISH AND WILDLIFE 001

Letter A

U.S. Fish and Wildlife Service
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road, Suite 101
Carlsbad, California 92011
(760) 431-9440
FAX (760) 431-5902 + 9618

California Department of Fish & Game
South Coast Region
4949 Viewridge Avenue
San Diego, California 92123
(858) 467-4201
FAX (858) 467-4299

In Reply Refer To:
FWS-SDG-08B0183-10TA0010

Mr. Dennis Campbell
County of San Diego
Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego, California 92123

OCT 8 2009

Subject: Draft Environmental Impact Report for the Meadowood Project, San Diego County, California (SCH # 2004051028)

Dear Mr. Campbell:

The U.S. Fish and Wildlife Service (Service) and the California Department of Fish and Game (Department), hereafter referred to as the Wildlife Agencies, have reviewed the Draft Environmental Impact Report (DEIR) for the above-referenced project, dated August 27, 2009. The comments provided herein are based on the information provided in the DEIR, the Wildlife Agencies' knowledge of sensitive and declining vegetative communities, and our participation in regional conservation planning efforts. A-1

The primary concern and mandate of the Service is the protection of public fish and wildlife resources and their habitats. The Service has legal responsibility for the welfare of migratory birds, anadromous fish, and endangered animals and plants occurring in the United States. The Service is also responsible for administering the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*). The Department is a Trustee Agency and a Responsible Agency pursuant to the California Environmental Quality Act (CEQA), Sections 15386 and 15381, respectively, and is responsible for the conservation of the State's biological resources, pursuant to the California Endangered Species Act, and California Fish and Game Code. The Department also administers the Natural Community Conservation Planning (NCCP) program. A-2

Approximately 250 acres of the 389.5-acre project site is currently being used for agricultural operations. On the steeper slopes in the northeastern portion of the site, there are areas of native habitat, including coastal sage scrub, chaparral, annual grassland, and a small area of oak woodland. The project site is surrounded by grazed land and undeveloped native habitat to the west, groves and undeveloped native habitat to the east, undeveloped native habitat to the north (including the Heights of Pala Mesa Conservation Bank), and State Route 76 (SR-76) and the San Luis Rey River to the south. A-3

The proposed project is the development of 866 residential units, comprised of a mix of single-family and multi-family units. Additional elements of the proposed project include an A-4

TAKE PRIDE IN AMERICA

A-1 Introductory statement noted. No response is necessary.

A-2 Comment noted.

A-3 The comment provides an accurate overview and context of the Project Site.

A-4 The comment provides an accurate overview of the project description.

elementary school, six private parks, 5.9 miles of trails, associated community facilities, infrastructure, preservation of 122.4 acres of natural open space, and 49.3 acres of agricultural open space.

The applicant has met numerous times with the County and the Wildlife Agencies to discuss/negotiate the proposed development/preserve design as part of the planning process for the County's draft North County Multiple Species Conservation Plan (NCMSCP). As a result of these meetings, the County, the applicant, and the Wildlife Agencies reached agreement on the "hardline" reserve boundary for the proposed project, as shown in Exhibit 2 of the Biological Resources report included in the DEIR. These "hardline" discussions did not include details related to the proposed offsite road improvements. A-5

We offer the following recommendations and comments to assist the County of San Diego in minimizing and mitigating project impacts to biological resources, and to assure that the project is consistent with ongoing regional habitat conservation planning efforts: A-6

1. The DEIR indicates that the main access for the project site will be taken via Horse Ranch Creek Road and that a secondary, paved fire access road will extend northeasterly from Street E to Rice Canyon Road. Please clarify whether this emergency road will be open at all times or gated and only used in emergency situations. To minimize the potential for this road to act as a barrier to wildlife moving between the proposed onsite open space and adjacent open space areas to the north of the project site, we recommend that the road be gated and used only in emergency situations. In addition, please explain why secondary fire access cannot be obtained off-site to the west of the property, instead of bisecting the biological open space preserve to the east. The Wildlife Agencies recommend avoiding the eastern route through open space, and obtaining access via proposed development to the west.

2. The project site currently supports a large agricultural operation. During discussions with the owners of the property immediately west of the project site (i.e., Campus Park), and representatives from the County, it has been suggested that much of the extensive riparian habitat located on the Campus Park property is a result of irrigation run-off from the existing agricultural operation on the project site. The Wildlife Agencies are concerned about potential impacts to this riparian habitat, as well as species known to be utilizing this habitat [i.e., least Bell's vireo (*Vireo bellii pusillus*; vireo)], due to the decrease in irrigation run-off that will result from converting the on-site agricultural operation to urban development. Therefore, we recommend that the final EIR address the following: 1) the proposed project's potential impacts to the riparian habitat, and associated species, on the adjacent property; 2) whether the proposed development will result in urban run-off replacing agricultural run-off into the creek; and, 3) how any identified impacts will be mitigated.

A-5 The County acknowledges that there have been numerous meetings and discussions regarding the preserve design and a potential hardline agreement for the Proposed Project. As designed, there are no off-site road improvements that go through the hardline area; however, subsequent to those discussions, the North County Fire Protection District (NCFPD) has mandated that a road be added across the preserve area to provide additional emergency access. For reasons described below in responses to comments A-7 and A-8, the road would not significantly affect the integrity of the preserve.

A-6 Comment noted.

LETTER

RESPONSE

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A-7

A-7 The Proposed Project has been designed with three public access points for future circulation; although ungated pursuant to the NCFPD requirements, the emergency road is not considered a public access.

Primary access would be provided via SR-76 to Horse Ranch Creek Road. Secondary access would be provided via Stewart Canyon Road/Pankey Road/Horse Ranch Creek Road and from Old SR-395 via Pala Mesa Drive/Street R/Horse Ranch Creek Road. The NCFPD has required an emergency road in the northeastern portion of the Project Site to connect Street E to Rice Canyon Road. This emergency road will be located on an existing unpaved utility road. Although the NCFPD does not want the emergency road to be gated (in order to provide unrestricted access at all times in case of an emergency), signs will be posted at each entrance stating that the road is to be used for emergency purposes only.

This emergency road would not serve as a barrier to wildlife movement or cause wildlife mortality for several reasons. The design and location of the fire access road would discourage its use as a major access road for the surrounding area. The road is planned to remain narrow and without physical barriers. Additionally, as shown in Final EIR Figure 2.1-7, the road is located within an area of steep grade. As documented on page 17 (Figure 6a) and page 21 (Table 5) of the Traffic Impact Study prepared for the Proposed Project, it is estimated that at worst case, traffic volumes would not exceed 40 ADT). The more likely route for travelers would be to use Horse Ranch Creek Road, SR-76, and Rice Canyon Road, because these roadways are built to public standards as compared to the emergency access route. Therefore, due to the physical layout of the road and the existence of alternative less challenging routes, impacts to the integrity of the preserve and wildlife movement are not anticipated to be significant.

LETTER

RESPONSE

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2. The project site currently supports a large agricultural operation. During discussions with the owners of the property immediately west of the project site (i.e., Campus Park), and representatives from the County, it has been suggested that much of the extensive riparian habitat located on the Campus Park property is a result of irrigation run-off from the existing agricultural operation on the project site. The Wildlife Agencies are concerned about potential impacts to this riparian habitat, as well as species known to be utilizing this habitat [i.e., least Bell's vireo (*Vireo bellii pusillus*; vireo)], due to the decrease in irrigation run-off that will result from converting the on-site agricultural operation to urban development. Therefore, we recommend that the final EIR address the following: 1) the proposed project's potential impacts to the riparian habitat, and associated species, on the adjacent property; 2) whether the proposed development will result in urban run-off replacing agricultural run-off into the creek; and, 3) how any identified impacts will be mitigated. A-9 A-10

A-8 The Proposed Project includes secondary access points to the west; however, the NCFPD specifically requires access to the east to serve as an additional emergency escape for residents off-site in Rice Canyon and future residents in the eastern portion of the Proposed Project. Emergency fire hazard incidents can move and threaten from any direction, and multiple access or evacuation routes are required to satisfy life safety concerns. In terms of regional connectivity, one cannot travel west while on Rice Canyon Road unless one travels south to SR-76 or goes north, to the community of Rainbow.

The proposed northeast emergency access road offers the only east/west escape or access route, other than SR-76, in this vicinity. The NCFPD is planning a fire station east of Rice Canyon Road. If an incident were to block SR-76 between Rice Canyon and Horse Ranch Creek Roads, that fire station would be unable to respond, except via a circuitous route through Rainbow and then back to the south, to the Project Site. Therefore, this proposed northeast emergency access road offers a more direct evacuation and emergency response route than currently exists in this geographic area. This proposed emergency access road is necessary to protect the life-safety of the area's existing and future residents.

A-9 Comment noted. This is an introductory statement to the comment which follows.

A-10 As discussed in Subchapter 3.1.3, under Wetland Vegetation (Guideline 12) of the Final EIR, the riparian habitat located off-site adjacent to the southwestern portion receives runoff from Horse Ranch Creek (the area to the north) and the area to the east. The entire watershed tributary to the riparian area is approximately 12 square miles.

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A-10

A-10 (cont.)

The Horse Ranch Creek watershed consists of natural vegetation, scattered low density residences, and a golf course along Pala Creek with medium to high density residences around the vicinity of the golf course (Pala Mesa Resort). In the pre-project condition the on-site portion, or the area to the east of the riparian area, is approximately 4 percent of the entire watershed that is tributary to the riparian area. The northern portion of the Proposed Project does not immediately convey flows to the riparian area. Due to irrigation runoff, severe erosion has occurred and the current drainage pattern conveys flows associated with this northern area immediately west to the low flow portion of Horse Ranch Creek. These combined flows are then conveyed southerly towards the riparian area.

There are no anticipated impacts to off-site riparian habitat or the species this habitat supports from a loss of agricultural runoff from the Project Site to the Campus Park property since the Proposed Project has been designed to maintain pre-project drainage patterns and mitigate for hydromodification (erosion/degradation). The total area of the drainage basins which is a tributary to the riparian area, in the post project condition, is 292.7 acres (approximately 4 percent of the entire Horse Ranch Creek watershed). The watershed associated with Horse Ranch Creek (the area to the north), that is tributary to the riparian area in the pre-project condition will remain unchanged in the post-project condition as a result of the Proposed Project.

Additionally, in the post-project condition, 49.3 acres of agricultural groves will be preserved and irrigation runoff will be captured and conveyed through the Proposed Project and outfall at similar locations to pre-project drainage patterns. This runoff will be conveyed to the riparian area and then confluence with the Horse Ranch Creek flows. The on-site portion of the Proposed Project will convey flows to the riparian area through a combination of urban runoff and the irrigation runoff associated with the groves. For these reasons, the riparian area will continue to receive runoff in the post-project condition.

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A-10

A-10 (cont.)

These design features would ensure that areas downstream of the Project Site which currently receive runoff during storm events would continue to do so once the Proposed Project is built. The Proposed Project design includes several detention facilities strategically located throughout the Proposed Project to maintain connections to existing off-site drainage patterns. It is anticipated that the storm runoff during the wet season and urban runoff during the dry season would be captured in the detention basins and released at controlled flow rates and durations into these existing drainage patterns. Riparian habitat downstream of the Project Site would still be maintained by these flows much like the pre-project condition without increasing erosion and degradation. The Final EIR, Subchapter 3.1.3, Wetland Vegetation (Guideline 12) has been revised to incorporate this information and the conclusion that impacts would be less than significant.

3. Water storage basins and detention basins constructed in association with the proposed wastewater treatment plant should be designed to preclude bullfrog use of these areas. } A-11

4. The DEIR states that permanent impacts to wetland habitats, including occupied vireo habitat, will be off-set through the offsite creation/restoration/enhancement of no less than 12.3 acres of southern willow scrub or willow riparian forest in the project region of equal or greater quality to that affected by the project. All offsite mitigation areas should be identified and approved by the Wildlife Agencies prior to project implementation. In addition, all offsite areas should be preserved and managed in perpetuity. The applicant should submit final wetland creation/restoration/enhancement plans to the Wildlife Agencies for approval at least 30 days prior to initiating project impacts. The applicant must also notify the Department and obtain a Lake and Streambed Alteration Agreement (CA Fish and Game Code Section 1600) prior to impacting any wetland/riparian habitats. The final plans should include the following information and conditions: } A-12

   a. All final specifications and topographic-based grading, planting and irrigation plans (with 0.5-foot wetlands contours and typical cross-sections) for the creation/restoration/enhancement sites. All graded areas should be left in a rough grade state with microtopographic relief (including channels for wetlands) that mimics natural topography, as directed by the Wildlife Agencies. Topsoil and plant materials salvaged from the impacted areas (including live herbaceous, shrub and tree species) should be transplanted to, and/or used as a seed/cutting source for, the riparian/wetland creation and enhancement areas to the maximum extent practicable as directed by the Wildlife Agencies. Planting and irrigation should not be installed until the Wildlife Agencies have approved of the mitigation site grading. All plantings should be installed in a way that mimics natural plant distribution, and not in rows;

   b. Planting palettes (plant species, size and number/acre) and seed mix (plant species and pounds/acre). The multitude of plant palettes proposed in the draft plans should include native species specifically associated with the habitat type(s). Unless otherwise approved by the Wildlife Agencies, only locally native species (no cultivars) available from as close to the project area as possible should be used. The source and proof of local nativeness of all plant material and seed should be provided;

   c. Container plant survival should be 80% of the initial plantings for the first 5 years. At the first and second anniversary of plant installation, all dead plants should be replaced unless their function has been replaced by natural recruitment;

   d. A final implementation schedule that indicates when all riparian/wetland impacts, as well as riparian/wetland creation grading, planting and irrigation will begin and end. Necessary site preparation and planting should be completed during the

A-11 The County concurs with this comment. Subchapter 1.2.1, Water/Wastewater Services, Table 1-5 and Chapter 8 (MMRP) of the Final EIR has been revised, to include the following design measure: Exclusion fencing shall be installed around the perimeter of the water and detention basins to prevent bullfrog use of these areas.

If, however, sensitive frog species are observed during routine vegetation surveys as required by the RMP, the RMP would be amended to account for new sensitive species.

A-12 This comment is an accurate statement as described in the EIR regarding the impacts to wetland habitat, including vireo habitat, and mitigation of impacts in the form of creation/restoration/ enhancement in the project region of no less than 12.3 acres of southern willow scrub or willow riparian forest of equal or greater quality to that affected by the Proposed Project. The County acknowledges that the final wetland creation/restoration/ enhancement plans must be submitted to the Service for approval at least 30 days prior to initiating impacts.

3. Water storage basins and detention basins constructed in association with the proposed wastewater treatment plant should be designed to preclude bullfrog use of these areas.

4. The DEIR states that permanent impacts to wetland habitats, including occupied vireo habitat, will be off-set through the offsite creation/restoration/enhancement of no less than 12.3 acres of southern willow scrub or willow riparian forest in the project region of equal or greater quality to that affected by the project. All offsite mitigation areas should be identified and approved by the Wildlife Agencies prior to project implementation. In addition, all offsite areas should be preserved and managed in perpetuity. The applicant should submit final wetland creation/restoration/enhancement plans to the Wildlife Agencies for approval at least 30 days prior to initiating project impacts. The applicant must also notify the Department and obtain a Lake and Streambed Alteration Agreement (CA Fish and Game Code Section 1600) prior to impacting any wetland/riparian habitats. The final plans should include the following information and conditions:

   a. All final specifications and topographic-based grading, planting and irrigation plans (with 0.5-foot wetlands contours and typical cross-sections) for the creation/restoration/enhancement sites. All graded areas should be left in a rough grade state with microtopographic relief (including channels for wetlands) that mimics natural topography, as directed by the Wildlife Agencies. Topsoil and plant materials salvaged from the impacted areas (including live herbaceous, shrub and tree species) should be transplanted to, and/or used as a seed/cutting source for, the riparian/wetland creation and enhancement areas to the maximum extent practicable as directed by the Wildlife Agencies. Planting and irrigation should not be installed until the Wildlife Agencies have approved of the mitigation site grading. All plantings should be installed in a way that mimics natural plant distribution, and not in rows;

   b. Planting palettes (plant species, size and number/acre) and seed mix (plant species and pounds/acre). The multitude of plant palettes proposed in the draft plans should include native species specifically associated with the habitat type(s). Unless otherwise approved by the Wildlife Agencies, only locally native species (no cultivars) available from as close to the project area as possible should be used. The source and proof of local nativeness of all plant material and seed should be provided;

   c. Container plant survival should be 80% of the initial plantings for the first 5 years. At the first and second anniversary of plant installation, all dead plants should be replaced unless their function has been replaced by natural recruitment;

   d. A final implementation schedule that indicates when all riparian/wetland impacts, as well as riparian/wetland creation grading, planting and irrigation will begin and end. Necessary site preparation and planting should be completed during the

A-13

A-13 The County acknowledges that:

- All off-site mitigation areas shall be reviewed by the Wildlife Agencies prior to project implementation, and will be preserved and managed in perpetuity.
- Final wetland creation/restoration/enhancement plans must be submitted to the Wildlife Agencies for approval at least 30 days prior to initiating impacts.
- The Department must be notified to obtain a Lake and Streambed Alteration Agreement (California Department of Fish and Game Code Section 1600) prior to impacting any wetland/riparian habitats.

The Proposed Project will comply with the requirements stated in this comment; with the exception of condition (a). The County acknowledges that the final plans shall include the remainder of the information and conditions (b through h).

With respect to Condition a), the applicant will not be able to provide plans with 0.5-foot contours for creation/restoration/ enhancement areas since heavy vegetation in these areas can make this difficult to achieve. A topographic survey would be provided for the revegetation plan and will include one-foot contours with spot elevations for flatter portions of the site. Two-foot contours will suffice for steeper areas of the proposed mitigation site.

concurrent or next planting season (i.e., late fall to early spring) after receiving the Wildlife Agencies' approval of grading. In the event that the project applicant is wholly or partly prevented from performing obligations under the final plans (causing temporal losses due to delays) because of unforeseeable circumstances or causes beyond the reasonable control, and without the fault or negligence of the project applicant, including but not limited to natural disasters (e.g., earthquakes etc.), labor disputes, sudden actions of the elements (e.g., further landslide activity), or actions by Federal or State agencies, or other governments, the project applicant will be excused by such unforeseeable cause(s);

e. Five years of success criteria for creation/restoration/enhancement areas including: separate percent cover criteria for herbaceous understory, shrub midstory, and tree overstory; evidence of natural recruitment of multiple species for all habitat types; 0 percent coverage for Cal-IPC List A and B species, and no more than 10 percent coverage for other exotic/weed species;

f. A vegetation monitoring plan with a map of proposed sampling locations. Stratified-random sampling will be used for all quantitative surveys;

g. Contingency measures in the event of mitigation failure;

h. Annual mitigation maintenance and monitoring reports should be submitted to the Wildlife Agencies after the maintenance and monitoring period and no later than December 1 of each year; and

A-13

5. The applicant should implement a perpetual management, maintenance and monitoring plan for all on and offsite upland and riparian preservation areas (including any creation/restoration/enhancement areas). The applicant should also establish a non-wasting endowment, or other funding mechanism, for an amount approved by the Wildlife Agencies based on a Property Analysis Record (PAR) (Center for Natural Lands Management (1998) or similar cost estimation method to secure the ongoing funding for the perpetual management, maintenance and monitoring of the biological conservation easement area by an agency, non-profit organization, or other entity approved by the Wildlife Agencies. The applicant should submit a draft plan including a description of perpetual management, maintenance and monitoring actions and the PAR or other cost estimation results for the non-wasting endowment to the Wildlife Agencies for approval at least 30 days prior to initiating project impacts. The applicant should submit the final plan to the Wildlife Agencies, and transfer the funds for the non-wasting endowment to the Department or an approved non-profit conservation entity, within 60 days of receiving approval of the draft plan.

A-14

A-15

6. Mitigation Measures M-BR-1(c) and M-BR-5.2 (c) in the DEIR should be revised to read as follows:

A-16

A-14 The County acknowledges that a perpetual management, maintenance and monitoring plan shall be implemented for all on- and off-site upland and riparian vegetation areas (including any creation/restoration/ enhancement areas).

A-15 The County acknowledges that a non-wasting endowment, or other funding mechanism, shall be established for an amount approved by the Wildlife Agencies based on a Property Analysis Record (PAR) (Center for Natural Lands Management [1998]) or similar cost estimation method to secure the ongoing funding for the perpetual management, maintenance and monitoring of the biological conservation easement area by an agency, non-profit organization, or other entity approved by the Wildlife Agencies. The County also acknowledges that a draft plan including a description of perpetual management, maintenance and monitoring actions and the PAR or other cost estimation results for the non-wasting endowment must be submitted to the Wildlife Agencies for approval at least 30 days prior to initiating impacts. The applicant shall submit the final plan to the Wildlife Agencies, and transfer the funds for the non-wasting endowment to the Department or an approved non-profit conservation entity, within 60 days of receiving approval of the draft plan.

"To avoid impacts to nesting vireo and/or gnatcatcher, vegetation clearing and grubbing should take place outside of the vireo and gnatcatcher nesting season (defined as February 15 through August 31 for gnatcatcher and March 15 through September 15 for vireo). If project construction (other than clearing and grubbing of sensitive habitats) is necessary adjacent to preserved on and offsite habitat during the vireo and gnatcatcher breeding season (defined as February 15 through August 31 for gnatcatcher and March 15 through September 15 for vireo; or sooner if a Wildlife Agency-approved biologist demonstrates to the satisfaction of the Wildlife Agencies that all nesting is complete), a Wildlife Agency-approved biologist should conduct pre-construction surveys in the adjacent habitat to determine the location of any active vireo nests in the area. The survey should begin not more than 3 days prior to the beginning of construction activities. The Agencies should be notified if any nesting vireos or gnatcatchers are found. During construction, no activity should occur within 300 ft (152.4 m) of active vireo or gnatcatcher nesting territories, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. Exceptions to this measure includes cases where surveys confirm that adjacent habitat is not occupied or where noise studies confirm that construction noise levels are below 60 dBA hourly L_{eq} along the edge of adjacent habitat. If construction activities are not completed prior to the breeding season and noise levels exceed this threshold, noise barriers should be erected to reduce noise impacts to occupied habitat to below 60 dBA hourly L_{eq} and/or the culpable activities will be suspended." A-16

If the project would impact least Bell's vireo habitat during the breeding season, the project proponent would need to obtain an California Endangered Species Act Incidental Take Permit from the Department unless it can be clearly demonstrated that no direct impacts to this species will occur. A-17

7. To minimize indirect effects from humans and domestic animals, no new trails should be created within the designated open space areas. Existing trails should be marked and signs should be in place to inform hikers of the sensitive nature of the habitat and to stay on designated trails. Redundant existing trails within biological preserve areas, or those that pose a risk to public safety or biological resources, should be closed to the public and restored to natural habitat. A-18 A-19

8. There appear to be minor discrepancies between the proposed project boundaries in the DEIR and the draft NCMSCP "hardline" preserve negotiated between the landowner, County, and the Wildlife Agencies. The final EIR needs to make sure that the final project impact boundaries and biological preserve areas are consistent with the draft NCMSCP plan. A-20

A-16 The County concurs with the mitigation measures provided in this comment; however, Mitigation Measure M-BR-1(c) is related to arroyo toad impacts. Subchapter 3.1.5, Mitigation Measures M-BR-3.2(c) and M-BR-5.2 (c), relating to nesting vireo and gnatcatchers have been revised in the Final EIR.

A-17 Comment noted.

A-18 Comment noted. As discussed in Subchapter 1.2.1, Recreation, and Subchapter 3.1.3, Impacts due to Human Access (Guideline 14) of the Final EIR, all public trails in the proposed open space will use existing dirt roads and trails to reduce the amount of disturbance to native habitats. In addition, signs shall be placed at the trailheads and intermittently along the trails to inform hikers of the sensitive nature of the habitat and to stay on trails. These measures will minimize indirect effects by reducing encroachment into wildlife habitat within the open space preserve.

A-19 According to the Trail Plan for the Proposed Project, all trails within the open space will be located along existing trails/dirt roads. Subchapter 1.2.1, Recreation of the Final EIR, have been revised to clarify that no new trails will be constructed in undisturbed areas. There are some existing trails/dirt roads which will not be included in the proposed trail system. These trails will be closed and restored to natural habitat.

A-20 The County acknowledges that there are minor discrepancies between the EIR and the hardline preserve boundaries. The graphic has been revised in the Final EIR, Figure 3.1-2, to be consistent with the draft NCMSCP.

10/08/2009 08:16 FAX 7604315902 US FISH AND WILDLIFE 006

Mr. Dennis Campbell (FWS-SDG-08B0183-10TA0010) 6

The Wildlife Agencies appreciate the opportunity to comment on this DEIR. If you have any questions, please contact David Lawhead (Department) at (858) 627-3997, or Michelle Moreno of the Service at (760) 431-9440. } A-21

Sincerely,

for

Karen A. Goebel
Assistant Field Supervisor
U.S. Fish and Wildlife Service

Stephen M. Juarez
Environmental Program Manager
California Department of Fish and Game

Attachments

cc: State Clearinghouse

A-21 Closing comment noted. No response is needed.

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
District 11
Planning Division
4050 Taylor Street, MS 240
San Diego, CA 92110
PHONE (619) 688-6960
FAX (619) 688-3338

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Letter B

October 8, 2009

11-SD-76
PM 17.70
TM 5354
Meadowood DEIR

Mr. Dennis Campbell
County of San Diego, DPLU
5201 Ruffin Road, Suite B
San Diego, CA 92123-4310

Dear Mr. Campbell:

The California Department of Transportation (Caltrans) appreciates the opportunity to review the Draft Environmental Impact Report (DEIR) for the Meadowood development located near State Route 76 (SR-76) and Interstate 15 (I-15). Our agency has the following comments: B-1

- Fair share mitigation for impacts to the I-15/SR-76 interchange should be identified in the EIR and made a condition of approval for the Meadowood project. Several correspondence letters were sent to the County prior to the release of the Meadowood DEIR detailing our agency's concerns with this issue. It is the position of our agency that fair share towards improvements to the I-15/SR-76 interchange is feasible and reasonable under the California Environmental Quality Act (CEQA). B-2

  The methodology for calculating fair share can be found in the Caltrans Traffic Impact Study Guidelines. Mitigation conditioned as part of a local agency's development approval for improvements to State facilities can be implemented either through a Cooperative Agreement between Caltrans and the lead agency, or by the project proponent entering into an agreement directly with Caltrans for the mitigation. When that occurs, Caltrans will negotiate and execute a Traffic Mitigation Agreement. B-3

- Traffic Volumes identified in the Meadowood DEIR Traffic Impact Study (TIS) are substantially lower than the volumes identified in Caltrans SR-76 East Traffic Volumes Report. The Meadowood TIS assumes a higher traffic distribution to the north than Caltrans, and therefore less traffic being assigned to SR-76. This results in approximately 10,000 less Average Daily Trips (ADT) using SR-76 in the future buildout years than what is identified by Caltrans as part of our traffic analysis for the SR-76 East Project. The SR-76 East Project environmental document is scheduled to be released for public review later this year. Understated traffic volumes in the Meadowood DEIR may affect potential impacts and mitigation to SR-76.

- Please clarify the timing and scope of improvements to SR-76/Horse Ranch Creek Road and the SR-76/Pankey Road intersections as project mitigation. Based on project and cumulative traffic, the design of these intersections will require channelization and dual left in and right out geometrics, which should be included in the EIR mitigation. Caltrans will not issue a permit for

"Caltrans improves mobility across California"

B-1 Introductory comment is noted.

B-2 The County agrees with this comment. Subchapter 2.3.5 of the Final EIR has been revised to include fair share mitigation for impacts to the I-15/SR-76 interchange.

B-3 Comment noted.

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

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- Please clarify the timing and scope of improvements to SR-76/Horse Ranch Creek Road and the SR-76/Pankey Road intersections as project mitigation. Based on project and cumulative traffic, the design of these intersections will require channelization and dual left in and right out geometrics, which should be included in the EIR mitigation. Caltrans will not issue a permit for

Caltrans improves mobility across California"

B-4 The County agrees that there are differences between the Meadowood Traffic Impact Study (TIS) and the Caltrans "SR-76 East Traffic Volumes Report." However, the County disagrees that the Meadowood TIS underestimates future SR-76 traffic volumes. The SR-76 traffic volumes from the TIS are based on the highest traffic volumes between all of the County of San Diego General Plan (GP) Update traffic models (Series 10) and the SANDAG Series 11 traffic model as currently posted on the SANDAG website. The Caltrans volumes are based on a revised traffic model (utilizing Series 11) that is not posted on the SANDAG website and is not available to the public.

The County's GP Update model (Series 10 modified) is considered more refined in determining traffic volumes and assignments for the following reasons:

1. The Series 10 modified traffic model contains more detailed land use data. County staff collected extensive land use information as part of the GP Update. The land use information is more current and complete than that was used in the Series 11 model.

2. The Series 10 modified traffic model was extensively calibrated to ground counts by County staff. This entailed extensive collection of existing traffic volumes to calibrate the baseline conditions. Moreover, the Series 10 modified traffic model has undergone numerous feedback iterations, thus, is more refined than the Series 11 model.

3. The Series 10 modified traffic model contains more recent cumulative project information.

For these reasons, the modeling assumptions used for the Proposed Project are accurate. As such, the Meadowood TIS does not underestimate future SR-76 traffic volumes.

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

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- Please clarify the timing and scope of improvements to SR-76/Horse Ranch Creek Road and the SR-76/Pankey Road intersections as project mitigation. Based on project and cumulative traffic, the design of these intersections will require channelization and dual left in and right out geometrics, which should be included in the EIR mitigation. Caltrans will not issue a permit for

B-5

B-6

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B-5 The TIS, page 123, discusses the timing and scope of improvements to SR-76/Horse Ranch Creek Road which states the following.

If the Applicant's development precedes both of the other planned cumulative projects (i.e. Palomar Community College District and Campus Park), then the applicant will design and install a traffic signal for the existing single eastbound left turn lane at Horse Ranch Creek Road/SR-76; and construct the north leg of this intersection. If the Applicant's development is the first development to follow development of Palomar Community College District or Campus Park (i.e., the other planned cumulative projects), then the Applicant will construct a second left turn lane from eastbound SR-76 to northbound Horse Ranch Creek Road creating dual left turn lanes and make modifications to the traffic signal to accommodate dual left turn lanes.

The timing and scope of improvements to SR-76/Pankey Road, documented on page 125 of the TIS, is tied to the TIF, as this is a cumulative impact mitigated through participation in the TIF program. However, the current widening of SR-76 east of I-15 as a condition of the Granite Construction Company project will also improve the intersection of SR-76/Pankey Road as documented on the Caltrans drawings.

B-6 The ultimate intersection configuration of SR-76/Horse Ranch Creek Road is included in the TIS, page 96, identified as intersection #9. This configuration accounts for dual left in and right out geometrics. The ultimate configuration for the Pankey Road/SR-76 intersection is also shown in the TIS, page 96, identified as intersection #8.

The County acknowledges that an encroachment permit will be required from Caltrans for any work to be performed within Caltrans right-of-way.

improvements to these intersections without the appropriate traffic analysis and buildout conditions identified in the traffic study and EIR. B-6

- The 30% internal capture rate identified in the traffic study should only be applied in the buildout condition, or the traffic analysis needs to be revised to include a phased analysis with reasonable assumptions as to the timing of other development approvals in the area. B-7

- Grading for this proposed project which would modify existing drainage and increase runoff to State facilities will not be allowed. Caltrans standard drainage details and drainage structures should be provided in the drainage study for work inside Caltrans right-of-way (R/W). For Hydrology related questions, please contact Tim Brownson in Caltrans Hydraulics Engineering Branch at (619) 688-3391. B-8

- Caltrans will not be held responsible for any noise impacts to this development, including from the ultimate configurations of I-15 and SR-76. B-9

- All landscape and irrigation improvements shall conform to Caltrans' policies for design construction and maintenance. The local agency is responsible for requiring any additional highway planting called for by its community standards as part of any development approval. All planting designs are approved by the Caltrans District Landscape Architect. The permitee can obtain from Caltrans District Landscape Architect Caltrans' standard details, plant list, planting and irrigation standard specifications, and special provisions where applicable. Large trees must be located outside the "clear recovery" area, as described in the Highway Design Manual. Additional information regarding landscaping can be found in Caltrans Encroachment Permit Manual, and Project Development Procedures Manual, which are available on Caltrans website. B-10

The local agency will need to enter into an Agreement with Caltrans for the proposed maintenance of the highway planting prior to any work being done within the State R/W. A Maintenance Agreement will only be executed with the local agency. The Maintenance Agreement templates are located at the following website: B-11

http://onramp.dot.ca.gov/hq/maint/ad_bud/budgets/agreements.shtml

It is strongly recommended when local agencies are approving development projects where landscaping is proposed in Caltrans R/W that the process to initiate an Agreement be done as early as possible. The local agency's environmental document and conditions of approval should document that an Agreement between the local agency and Caltrans will be required prior to an encroachment permit being issued by Caltrans for work within the State R/W. Additional information regarding Maintenance Agreements may be obtained by contacting Brent McDonald at Caltrans Maintenance Office at (619) 688-6141. B-12

- This project is located immediately adjacent to SR-76. Preserving needed R/W along major transportation corridors should be considered. Right of way acquisition can be accomplished by the Lead Agency through an Irrevocable Offer of Dedication (IOD) from the project owner / B-13

B-7 The 30 percent internal capture rate is only applied to the build-out conditions as requested. This is documented in the TIS, page 28, and in the Final EIR, Figures 2.3-4 through 2.3-6.

B-8 Comment noted. In both the pre- and post-project conditions, the runoff is conveyed under SR-76 via dual 30-inch pipes to an existing concrete lined trapezoidal channel that outlets into Horse Ranch Creek. The existing drainage improvements were designed as part of the *SR-76 Widening and Realignment from I-15* Drainage Report prepared by URS Corp. Although the post-project flow rate would be larger than the pre-project, the increase is only 0.7 cfs. Hydraulic analyses were prepared to model this 0.7 cfs increase in the existing improvements and it was determined that this increase had no impact on the existing system. Therefore, detention is not required.

B-9 The noise analysis for the Proposed Project evaluated projected ultimate traffic and noise conditions for the area and identified the size and composition of proposed noise walls required for mitigation. (See Mitigation Measure M-N-1.) Construction of these barriers is the responsibility of the Applicant. Caltrans will not be held responsible.

B-10 Comment noted. This information was utilized during the design of the Proposed Project along the State right-of-way. The County acknowledges that an agreement with Caltrans is necessary for the proposed maintenance of the highway planting prior to any work being done within the State right of-way.

B-11 Comment noted.

B-12 Comment noted. The County acknowledges Caltrans' requirements relating to an encroachment permit being issued by Caltrans for work within the State right-of-way.

B-13 Comment noted. The County concurs that any needed right-of-way will be preserved and accomplished through an Irrevocable Offer of Dedication.

developer. Right of way identified through an IOD should be consistent with the Lead Agency's General Plan Circulation Element and Caltrans design standards. B-13

- Any sign advertising a business not "on premise" will require an Outdoor Advertising Display Permit. Information on outdoor advertising may be obtained by contacting Gerda Holstrom of Caltrans Traffic Operations at (619) 688-3282. B-14

- Any work performed within Caltrans R/W will require discretionary review and approval by the Department. Current policy allows Highway Improvement Projects costing $1 million or less to follow the Caltrans Encroachment Permit process. Highway Improvement Projects costing greater than $1 million but less than $3 million would be allowed to follow a streamlined project development process similar to the Caltrans Encroachment Permit process. In order to determine the appropriate permit processing of projects funded by others, it is recommended the concept and project approval for work to be done on the State Highway System be evaluated through the completion of a Permit Engineering Evaluation Report (PEER). A PEER should always be prepared, regardless of the cost of improvements, when new operating improvements are constructed by the permitee that becomes part of the State Highway System. These include but are not limited to, signalization, channelization, turn pockets, widening, realignment, public road connections, and bike paths and lanes. After approval of the PEER and necessary application and supporting documentation an encroachment permit can be issued. B-15

Highway Improvement Projects greater than $3 million, or considered complex projects, would be required to adhere to the full Project Development Process (e.g. Project Initiation Documents, Project Study Reports and Cooperative Agreements). A Caltrans District responsible unit will be notified and a project manager will be assigned to coordinate the project approval. B-16

In order to expedite the process for projects sponsored by a local agency or private developer, it is recommended a PEER be prepared and included in the Lead Agency's CEQA document. This will help expedite the Caltrans Encroachment Permit Review process. The PEER document forms and procedures can be found in the Caltrans Project Development Procedures Manual (PDPM). http://www.dot.ca.gov/hq/oppd/pdpm/pdpmn.htm
http://www.dot.ca.gov/hq/traffops/developserv/permits/pdf/forms/PEER_(TR-0112).pdf B-17

Furthermore, the applicant's environmental documentation must include such work in their project description and indicate that an encroachment permit will be needed. As part of the encroachment permit process, the developer must provide appropriate environmental approval for potential environmental impacts to State Highway R/W. Environmental documentation should include studies or letters from qualified specialists or personnel which address the potential, or lack of potential, for impacts to the following resources in state right-of-way: B-18

Biological resources
Archaeological and historic resources
Visual quality
Hazardous waste
Water quality & stormwater

B-14 Comment noted. The County acknowledges that any sign advertising a business not "on premise" will require an Outdoor Advertising Display Permit.

B-15 Comment noted. The County acknowledges that any work performed within Caltrans right-of-way will require discretionary review and approval by the Department.

B-16 Comment noted. The County acknowledges that Highway Improvement Projects greater than $3 million, or considered complex projects, would be required to adhere to the full Project Development Process.

B-17 Comment noted. While appreciating the fact that completion of a PEER at this point may expedite Proposed Project permitting after approval, the County does not agree that completion of a PEER would be beneficial to the EIR process. The Proposed Project appropriately analyzes footprint impacts of features and mitigation measures, and identifies that an encroachment permit is required (refer to response to comment B-11). The speed of the Applicants' permitting process through other agencies is not a CEQA issue. No modifications to the EIR are required.

B-18 Comment noted. The County acknowledges that these requirements will be met, if necessary.

Pre-historic resources
Air quality
Noise levels

B-18

Copies of all project-related environmental documentation and studies which address the above-cited resources should be included with the project proponent's encroachment permit application to Caltrans for work within State R/W. If these materials are not included with the encroachment permit application, the applicant will be required to acquire and provide these to Caltrans before the permit application will be accepted. Encroachment permit submittals that are incomplete can result in significant delays in permit approval. The developer will also be responsible for procuring any necessary permits or approvals from the regulatory and resource agencies for the improvements.

B-19

When a property owner proposes to dedicate property to a local agency for Caltrans use in conjunction with a permit project, Caltrans will not issue the encroachment permit until the dedication is made and the property has been conveyed to the Department.

B-20

Improvement plans for construction within State Highway R/W must include the appropriate engineering information consistent with the state code and signed and stamped by a professional engineer registered in the State of California. The Department's Permit Manual contains a listing of typical information required for project plans. All design and construction must be in conformance with the Americans with Disabilities Act (ADA) requirements.

B-21

Additional information regarding encroachment permits may be obtained by contacting the Caltrans Permits Office at (619) 688-6158. Early coordination with Caltrans is strongly advised.

B-22

- The California Environmental Quality Act (CEQA) requires, under Public Resources Code (PRC) Section 21081.6, the adoption of reporting or monitoring programs when public agencies include environmental impact mitigation as a condition of project approval. Reporting or monitoring takes place after project approval to ensure implementation of the project in accordance with the mitigation adopted during the CEQA review process. According to PRC Section 21081.6, when a project has impacts that are of statewide, regional, or area-wide significance, a reporting or monitoring program shall be submitted to the Department of Transportation (Caltrans). Attached are Caltrans guidelines for the submittal of reporting or monitoring programs. Please submit the attached information to the Caltrans Inter-Governmental Review/Development Review contact following project approval.

B-23

B-19 Comment noted.

B-20 Comment noted. The County acknowledges that Caltrans will not issue the encroachment permit until the dedication is made and the property has been conveyed to the Department.

B-21 Comment noted. The County acknowledges that Improvement plans for construction within State Highway right-of-way must include the appropriate engineering information consistent with the state code and signed and stamped by a professional engineer registered in the State of California.

B-22 Comment noted. The County acknowledges that early coordination is advised.

B-23 Comment is noted. The County acknowledges that reporting or monitoring will take place after approval to ensure implementation of the Proposed Project in accordance with the mitigation adopted during the CEQA review process and agrees that a reporting or monitoring program will be submitted to Caltrans.

If you have any questions regarding this project, please contact Trent Clark, Development Review Branch, at (619) 688-3140. } B-24

Sincerely,

JACOB M. ARMSTRONG, Branch Chief
Development Review Branch

"Caltrans improves mobility across California"

B-24 Comment noted.

Oct-13-2009 16:06 From-DIVISION OF LAND RESOURCE PROTECTION 19163273430 T-913 P.001/002 F-

Letter C

NATURAL RESOURCES AGENCY ARNOLD SCHWARZENEGGER, GOVERNOR

DEPARTMENT OF CONSERVATION

DIVISION OF LAND RESOURCE PROTECTION

801 K STREET • MS 18-01 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 324-0850 • FAX 916 / 327-3430 • TDD 916 / 324-2555 • WEBSITE conservation.ca.gov

October 13, 2009

VIA FACSIMILE (858) 694-3373
Dennis Campbell
County of San Diego
5201 Ruffin Road, Suite B
San Diego, CA 92123

Dear Mr. Campbell:

Subject: San Diego Meadowood Project Draft Environmental Impact Report
SCH# 2004051028

The Department of Conservation's (Department) Division of Land Resource Protection (Division) has reviewed the Draft Environmental Impact Report (DEIR) for the referenced project. The Division monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act and other agricultural land conservation programs. We offer the following comments and recommendations with respect to the project's impacts on agricultural land and resources.

C-1

Project Description

The purpose of the Meadowood project is the development of a residential community of up to 844 housing units. The 389.5-acre project site is located in San Diego County, north of State Route 76 and approximately one-quarter mile east of Interstate 15 in the Fallbrook Community Planning Area. The project site does not contain lands under Williamson Act contracts. However, the implementation of the project would result in the conversion of 6.3 acres of Prime Farmland, 99.9 acres of Unique Farmland, and 54.2 acres of other farmland to non-agricultural use. The impact to agricultural resources has been categorized as significant. Therefore, the Division recommends that any subsequent environmental document address the following item to provide a more comprehensive discussion of potential impacts of the project on agricultural land and activities:

C-2

Mitigation Measures

The loss of agricultural land represents a permanent reduction in the State's agricultural land resources. As its proposed mitigation measure, the project will retain 49.3 acres of avocado and citrus groves in an agricultural open space easement that will provide for on-site retention of agricultural resources. The 49.3 acres of avocado and citrus groves would be maintained by the Meadowood Homeowners' Association and would be dedicated as a preserve in perpetuity.

The Department of Conservation's mission is to balance today's needs with tomorrow's challenges and foster intelligent, sustainable, and efficient use of California's energy, land, and mineral resources.

C-1 Introductory statement is noted. No response is necessary.

C-2 This comment accurately states the Proposed Project's general project description, including the conversion of agricultural lands that would result from project implementation. However, after receipt of public review comments, the County determined that the EIR and Agricultural Technical Study required clarification relating to impacts to agricultural resources. The circulated EIR concluded that impacts to FMMP designated farmland would be significant. This conclusion is confusing because the EIR discussion identified that the results of the accepted statewide Land Evaluation and Site Assessment (LESA) Model reached a finding that impacts associated with the conversion of agricultural land to non-agricultural use would be less than significant. While no new information has been added to the analysis, in order to clarify the methodology and analysis regarding significant impacts, the methodology has been revised to utilize the LESA Model results. Impacts are concluded to be less than significant. As a result of this revision, the agricultural resources chapter has been relocated to Chapter 4.0 of the Final EIR.

Oct-13-2009 16:06 From-DIVISION OF LAND RESOURCE PROTECTION 19163273430 T-913 P.001/002 F-956

NATURAL RESOURCES AGENCY ARNOLD SCHWARZENEGGER, GOVERNOR

DEPARTMENT OF CONSERVATION

DIVISION OF LAND RESOURCE PROTECTION

801 K STREET • MS 18-01 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 324-0850 • FAX 916 / 327-3430 • TDD 916 / 324-2555 • WEBSITE conservation.ca.gov

October 13, 2009

VIA FACSIMILE (858) 694-3373
Dennis Campbell
County of San Diego
5201 Ruffin Road, Suite B
San Diego, CA 92123

Dear Mr. Campbell:

Subject: San Diego Meadowood Project Draft Environmental Impact Report
SCH# 2004051028

The Department of Conservation's (Department) Division of Land Resource Protection (Division) has reviewed the Draft Environmental Impact Report (DEIR) for the referenced project. The Division monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act and other agricultural land conservation programs. We offer the following comments and recommendations with respect to the project's impacts on agricultural land and resources.

Project Description

The purpose of the Meadowood project is the development of a residential community of up to 844 housing units. The 389.5-acre project site is located in San Diego County, north of State Route 76 and approximately one-quarter mile east of Interstate 15 in the Fallbrook Community Planning Area. The project site does not contain lands under Williamson Act contracts. However, the implementation of the project would result in the conversion of 6.3 acres of Prime Farmland, 99.9 acres of Unique Farmland, and 54.2 acres of other farmland to non-agricultural use. The impact to agricultural resources has been categorized as significant. Therefore, the Division recommends that any subsequent environmental document address the following item to provide a more comprehensive discussion of potential impacts of the project on agricultural land and activities: C-2

Mitigation Measures

The loss of agricultural land represents a permanent reduction in the State's agricultural land resources. As its proposed mitigation measure, the project will retain 49.3 acres of avocado and citrus groves in an agricultural open space easement that will provide for on-site retention of agricultural resources. The 49.3 acres of avocado and citrus groves would be maintained by the Meadowood Homeowners' Association and would be dedicated as a preserve in perpetuity.

The Department of Conservation's mission is to balance today's needs with tomorrow's challenges and foster intelligent, sustainable, and efficient use of California's energy, land, and mineral resources.

C-2 (cont.)

Specifically, Subchapter 4.7.3 the Final EIR discusses the Proposed Project's conversion of farmland to non-agricultural use. Pursuant to Appendix G of the CEQA Guidelines, the California LESA Model was utilized to determine whether the farmland present on the Project Site would be considered an important resource, the conversion of which would result in a significant impact. CEQA Statute section 21061.2 defines "land evaluation and site assessment" as the means a decision-making methodology for assessing the potential environmental impact of state and local projects on agricultural land. Furthermore, CEQA statute section 21060.1(a) defines "agricultural land" as prime farmland, farmland of statewide importance, or unique farmland. The California LESA Model applied multiple factors to agricultural land such as: soil type, project size, water availability, surrounding land uses, and protected resources lands to reach a Land Evaluation Score (LE) and a Site Assessment Score (SA). A project is considered to be an important resource under the LESA Model if the total LESA Model score is greater or equal to 40 points, and the subscores for the LE and SA segments are each greater than or equal to 20 points. The overall LESA Model score for the Project Site is 40.8; the SA subscore is 27.8 points, the LE subscore is 13 points (Final EIR, Appendix O, section 6.1.1). Accordingly, this score means that the Project Site does not represent a significant agricultural resource because the LE subscore is less than 20.

The circulated EIR also included an additional method of analyzing agricultural impacts which included the consideration of CDC Important Farmland. However, this discussion was removed from the analysis because it failed to define the thresholds for the conversion of Important Farmland Categories. Moreover, these lands are considered in the LESA model as described above.

Therefore, in order to provide clarification regarding the methodology used to identify impacts, the analysis was revised to utilize one methodology (LESA Model) to identify impacts to agricultural lands.

Oct-13-2009 16:06 From-DIVISION OF LAND RESOURCE PROTECTION 19163273430 T-913 P.001/002 F-956

NATURAL RESOURCES AGENCY ARNOLD SCHWARZENEGGER, GOVERNOR

DEPARTMENT OF CONSERVATION

DIVISION OF LAND RESOURCE PROTECTION

801 K STREET • MS 18-01 • SACRAMENTO, CALIFORNIA 95814

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October 13, 2009

VIA FACSIMILE (858) 694-3373
Dennis Campbell
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5201 Ruffin Road, Suite B
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Dear Mr. Campbell:

Subject: San Diego Meadowood Project Draft Environmental Impact Report
SCH# 2004051028

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Project Description

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Mitigation Measures

The loss of agricultural land represents a permanent reduction in the State's agricultural land resources. As its proposed mitigation measure, the project will retain 49.3 acres of avocado and citrus groves in an agricultural open space easement that will provide for on-site retention of agricultural resources. The 49.3 acres of avocado and citrus groves would be maintained by the Meadowood Homeowners' Association and would be dedicated as a preserve in perpetuity.

C-3

C-3 Please see response to comment C-2. Impacts associated with the conversion of farmland have been clarified in the Final EIR as being less than significant. Therefore, no mitigation is required; however, the Proposed Project continues to include the retention of a 49.3-acre agricultural open space easement for the maintenance of agricultural uses on-site. The Final EIR has been revised to clarify the description of the 49.3-acre agricultural easement as a project design feature rather than mitigation.

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The 49.3 acres of agricultural open space easement represents only a portion of the total acreage of the agricultural land proposed to be converted by the project. Because of this, the Department recommends the use of additional permanent agricultural conservation easements on land of at least equal quality and size as partial compensation for the total amount of agricultural land being converted. If growth inducing or cumulative agricultural impacts are involved, the Department recommends that this ratio of conservation easements to lost agricultural land be increased. Conservation easements will protect a portion of those remaining land resources and lessen project impacts in accordance with CEQA Guideline §15370. The Department highlights this measure because of its acceptance and use by lead agencies as an appropriate mitigation measure under CEQA and because it follows an established rationale similar to that of wildlife habitat mitigation. C-4

Mitigation via agricultural conservation easements can be implemented by at least two alternative approaches: the outright purchase of easements or the donation of mitigation fees to a local, regional or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural conservation easements. The conversion of agricultural land should be deemed an impact of at least regional significance. Hence, the search for replacement lands should be conducted regionally or statewide, and not limited strictly to lands within the project's surrounding area.

The Department also has available a listing of approximately 30 "conservation tools" that have been used to conserve or mitigate project impacts on agricultural land. This compilation report may be requested from the Division at the email address or phone number below. General information about agricultural conservation easements, the Williamson Act, and provisions noted above is available on the Department's website:

http://www.conservation.ca.gov/dlrp/index.htm

Of course, the use of conservation easements is only one form of mitigation that should be considered. Any other feasible mitigation measures should also be considered.

Thank you for giving us the opportunity to comment on this DEIR. If you have questions regarding our comments, or require technical assistance or information on agricultural land conservation, please contact Elliott Lum, Environmental Planner, at 801 K Street, MS 18-01, Sacramento, CA 95814; phone: (916) 324-0869; email: Elliott.Lum@conservation.ca.gov.

Sincerely,

Dan Otis
Program Manager
Williamson Act Program

cc: State Clearinghouse

C-4 The County disagrees that additional permanent agricultural conservation easements would be required beyond the 49.3 acres currently proposed. As clarified in the Final EIR, the County considers the retention of the 49.3 acres of agricultural open space to be a project design measure. The retention of the agriculture on-site allows the site to retain its agricultural history and identity through permanent preservation of the lands and the assurance of agricultural continuity through a dedicated HOA.

The 49.3 acres is adequate to support productive agriculture. As stated in the County Department of Agriculture – Weights and Measures Annual Crop Report (2008), ". . . the way agriculture is conducted on the County's approximately 5,255 farms differs greatly from agricultural operations in the majority of California. Economically productive agriculture is conducted on small farms with 63 percent of farms ranging from 1 to 9 acres in size, 77 percent of farmers living on their farms and 92 percent of farms being family owned. In contrast, the average size of farms statewide is 346 acres." This is due to a variety of factors including high land values and high production costs. In San Diego County, land value is typically linked to its residential development potential. There are no exclusive agricultural zones in the County which would limit the land values to agricultural use only. As a result, much of the local agriculture is conducted on subdivided parcels that have a residential component. The high cost of production, particularly high water costs, forces the production of high value crops. The result is that smaller scale, high value agriculture is characteristic in San Diego County. In addition, in San Diego County, farming "is allowed in any zone" and "typically occurs among residential land uses." Therefore, the 49.3-acre agricultural parcel of farmland would be sufficient acreage to continue viable agriculture. Water would be available to irrigate the retained agricultural areas. In general, irrigation water in San Diego County is expensive, but the retained groves within the Project Site would have access to inexpensive recycled water from the on-site WWTP.

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Dennis Campbell
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The 49.3 acres of agricultural open space easement represents only a portion of the total acreage of the agricultural land proposed to be converted by the project. Because of this, the Department recommends the use of additional permanent agricultural conservation easements on land of at least equal quality and size as partial compensation for the total amount of agricultural land being converted. If growth inducing or cumulative agricultural impacts are involved, the Department recommends that this ratio of conservation easements to lost agricultural land be increased. Conservation easements will protect a portion of those remaining land resources and lessen project impacts in accordance with CEQA Guideline §15370. The Department highlights this measure because of its acceptance and use by lead agencies as an appropriate mitigation measure under CEQA and because it follows an established rationale similar to that of wildlife habitat mitigation. C-4

Mitigation via agricultural conservation easements can be implemented by at least two alternative approaches: the outright purchase of easements or the donation of mitigation fees to a local, regional or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural conservation easements. The conversion of agricultural land should be deemed an impact of at least regional significance. Hence, the search for replacement lands should be conducted regionally or statewide, and not limited strictly to lands within the project's surrounding area.

The Department also has available a listing of approximately 30 "conservation tools" that have been used to conserve or mitigate project impacts on agricultural land. This compilation report may be requested from the Division at the email address or phone number below. General information about agricultural conservation easements, the Williamson Act, and provisions noted above is available on the Department's website:

http://www.conservation.ca.gov/dlrp/index.htm

Of course, the use of conservation easements is only one form of mitigation that should be considered. Any other feasible mitigation measures should also be considered.

Thank you for giving us the opportunity to comment on this DEIR. If you have questions regarding our comments, or require technical assistance or information on agricultural land conservation, please contact Elliott Lum, Environmental Planner, at 801 K Street, MS 18-01, Sacramento, CA 95814; phone: (916) 324-0869; email: Elliott.Lum@conservation.ca.gov.

Sincerely,

Dan Otis
Program Manager
Williamson Act Program

cc: State Clearinghouse

C-4 (cont.)

The 49.3 acres of retained agriculture would not only be under a conservation easement, but would be operated under common ownership, the Meadowood HOA. This is an important factor because, as stated in the County Agricultural Guidelines, "preservation of agricultural resources ensures that the land would remain available for agricultural use; however, the choice to use the land for agriculture is the decision of the individual property owner". This means that a typical conservation easement cannot ensure that a parcel continues to be used for agriculture, and merely preserves the agricultural soils for future use. In contrast, the design of the agricultural open space easement on the Proposed Project would assure continued agricultural use because, as a condition of Proposed Project approval, the HOA would be required to maintain the avocado/citrus groves. Overall, the inclusion of the proposed 49.3 acres of agricultural open space as a project design measure would allow the project site to retain agricultural uses on-site as part of the overall image and residential character of the proposed development.

LETTER

RESPONSE

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Dennis Campbell
October 13, 2009
Page 2 of 2

The 49.3 acres of agricultural open space easement represents only a portion of the total acreage of the agricultural land proposed to be converted by the project. Because of this, the Department recommends the use of additional permanent agricultural conservation easements on land of at least equal quality and size as partial compensation for the total amount of agricultural land being converted. If growth inducing or cumulative agricultural impacts are involved, the Department recommends that this ratio of conservation easements to lost agricultural land be increased. Conservation easements will protect a portion of those remaining land resources and lessen project impacts in accordance with CEQA Guideline §15370. The Department highlights this measure because of its acceptance and use by lead agencies as an appropriate mitigation measure under CEQA and because it follows an established rationale similar to that of wildlife habitat mitigation. } C-5

Mitigation via agricultural conservation easements can be implemented by at least two alternative approaches: the outright purchase of easements or the donation of mitigation fees to a local, regional or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural conservation easements. The conversion of agricultural land should be deemed an impact of at least regional significance. Hence, the search for replacement lands should be conducted regionally or statewide, and not limited strictly to lands within the project's surrounding area.

The Department also has available a listing of approximately 30 "conservation tools" that have been used to conserve or mitigate project impacts on agricultural land. This compilation report may be requested from the Division at the email address or phone number below. General information about agricultural conservation easements, the Williamson Act, and provisions noted above is available on the Department's website:

http://www.conservation.ca.gov/dlrp/index.htm

Of course, the use of conservation easements is only one form of mitigation that should be considered. Any other feasible mitigation measures should also be considered.

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Program Manager
Williamson Act Program

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C-5 The Proposed Project would not result in growth inducing or cumulative agricultural impacts. As discussed in the Final EIR, Subchapter 1.8, the Proposed Project would not result in unforeseen increase in density on the project area, unanticipated construction of housing, unplanned improvement of roadways or unexpected expansion of public facilities and schools and, therefore, would not be growth inducing. The Proposed Project is located in an area envisioned to support additional development as identified by the SANDAG Smart Growth Concept Map, the I-15 Corridor Subregional Plan, the I-15/Highway 76 Master Specific Plan, and the General Plan Update having anticipated growth since at least 1983. The additional housing and necessary road improvements are proposed to support the foreseen residential and commercial developments. The proposed parks are scaled to comply with State and County requirements for parks and to serve the proposed number of homes and the new school site would assist the BUESD in meeting the student enrollment demands created by the Proposed Project.

The Proposed Project would not result in cumulative agriculture impacts. As discussed in Subchapter 4.7.4 of the Final EIR, a cumulative study area was developed to analyze agricultural impacts. Specifically, the area included nine existing or foreseeable future projects. As determined by the cumulative study included in the Agricultural Technical Report (Appendix O of the Final EIR), impacts to agricultural land within the cumulative study area would result in the loss of approximately 485 acres of farmland. The Proposed Project would not contribute to a cumulative loss of agricultural lands, because ongoing agricultural activities would continue as a result of the Proposed Project's project design measures including the retention of the 49.3-acre agricultural open space areas.

The 49.3 acres of agricultural open space easement represents only a portion of the total acreage of the agricultural land proposed to be converted by the project. Because of this, the Department recommends the use of additional permanent agricultural conservation easements on land of at least equal quality and size as partial compensation for the total amount of agricultural land being converted. If growth inducing or cumulative agricultural impacts are involved, the Department recommends that this ratio of conservation easements to lost agricultural land be increased. Conservation easements will protect a portion of those remaining land resources and lessen project impacts in accordance with CEQA Guideline §15370. The Department highlights this measure because of its acceptance and use by lead agencies as an appropriate mitigation measure under CEQA and because it follows an established rationale similar to that of wildlife habitat mitigation. C-6

Mitigation via agricultural conservation easements can be implemented by at least two alternative approaches: the outright purchase of easements or the donation of mitigation fees to a local, regional or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural conservation easements. The conversion of agricultural land should be deemed an impact of at least regional significance. Hence, the search for replacement lands should be conducted regionally or statewide, and not limited strictly to lands within the project's surrounding area. C-7

The Department also has available a listing of approximately 30 "conservation tools" that have been used to conserve or mitigate project impacts on agricultural land. This compilation report may be requested from the Division at the email address or phone number below. General information about agricultural conservation easements, the Williamson Act, and provisions noted above is available on the Department's website: C-8

http://www.conservation.ca.gov/dlrp/index.htm

Of course, the use of conservation easements is only one form of mitigation that should be considered. Any other feasible mitigation measures should also be considered.

Thank you for giving us the opportunity to comment on this DEIR. If you have questions regarding our comments, or require technical assistance or information on agricultural land conservation, please contact Elliott Lum, Environmental Planner, at 801 K Street, MS 18-01, Sacramento, CA 95814; phone: (916) 324-0869; email: Elliott.Lum@conservation.ca.gov.

Sincerely,

Dan Otis
Program Manager
Williamson Act Program

cc: State Clearinghouse

C-6 Comment noted. The project does propose an agricultural conservation easement as a project design measure.

C-7 The County acknowledges this comment and agrees that in theory there are two types of conservation approaches for mitigation via agricultural easement. As discussed in response to comments C-2 through C-6, the agricultural analysis of the Proposed Project has been revised to clarify that impacts to agricultural resources would be less than significant. Therefore, the proposed 49.3-acre agricultural open space areas serve as adequate project design measures to assure the agricultural character of the project site and to allow ongoing viable agricultural operations, as managed by the HOA.

C-8 Although the agricultural open space easement included as part of the Proposed Project has been clarified as a project design measure rather than mitigation, the County has reviewed the 30 "conservation tools" for their potential application to the Proposed Project. as follows:

Conservation Easements

This category includes tools such as Purchase of Agricultural Conservation Easement (PACE) programs, Transfer of Development Credits (TDC) programs, density bonuses, mitigation banking, and Lease, Lease-Purchase arrangements. All of these tools require programmatic implementation, as opposed to implementation on a project-by-project basis. The County has not yet established any such programs.

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Dennis Campbell
October 13, 2009
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Dan Otis
Program Manager
Williamson Act Program

cc: State Clearinghouse

C-8 (cont.)

Policy Tools

Exclusive agricultural zoning, restrictive agricultural zoning, the Williamson Act program, tax incentives, estate taxation reform, and Agricultural General Plan Land Use designations may be used to restrict non-farm uses or guide development away from prime agricultural areas, keep existing agricultural land in agricultural use, and to limit growth pressures on farmland by creating a greater certainty about future use of the land. In addition, the Cortese-Knox Act requires that LAFCOs consider impacts such as conversion of prime farmland when approving annexations or Sphere of Influence expansions. There are no exclusive agricultural zones in the County, which would limit the land values to agricultural use only. As a result, much of the local agriculture is conducted on subdivided parcels that have a residential component. Additionally, like most counties in California, the County has adopted a local ordinance under the "Right-to-Farm" Act, whereby a procedure is in effect, which requires prospective buyers of real estate to be notified of the inherent potential conditions associated with agricultural operations in the unincorporated areas.

Greenbelts

Several tools fall under the "greenbelt" category, whereby cities and counties attempt to steer urban growth to certain areas and/or reduce competition for land development. This allows the maintenance of concentrations of agricultural land, in order to retain the viability of agriculture, as well as reduce potential edge effects. These tools may include fee-simple acquisition, mitigation banking, City-County Agreements, City-County revenue sharing, urban limit lines, and other greenbelt development programs, which may also use combinations of other tools previously mentioned, such as general plan designations, PACE programs, urban growth boundaries, etc. As with the "conservation easement" tools previously mentioned, greenbelt related strategies must be implemented at a city or county level and are not practicable or feasible on a project-by-

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Page 2 of 2

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The Department also has available a listing of approximately 30 "conservation tools" that have been used to conserve or mitigate project impacts on agricultural land. This compilation report may be requested from the Division at the email address or phone number below. General information about agricultural conservation easements, the Williamson Act, and provisions noted above is available on the Department's website: C-8

http://www.conservation.ca.gov/dlrp/index.htm

Of course, the use of conservation easements is only one form of mitigation that should be considered. Any other feasible mitigation measures should also be considered. C-9

Thank you for giving us the opportunity to comment on this DEIR. If you have questions regarding our comments, or require technical assistance or information on agricultural land conservation, please contact Elliott Lum, Environmental Planner, at 801 K Street, MS 18-01, Sacramento, CA 95814; phone: (916) 324-0869; email: Elliott.Lum@conservation.ca.gov. C-10

Sincerely,

Dan Otis
Program Manager
Williamson Act Program

cc: State Clearinghouse

C-8 (cont.)

Project Specific Tools

Buffers are distinct from greenbelts in that they are used on a project-by-project basis, in order to provide separation between potentially conflicting land uses. The Proposed Project would implement a buffer between the proposed residences and the adjacent agricultural production through a combination of agricultural and natural open space easements, which includes a total of approximately 177.8 acres, as illustrated in Figure 1-2 of the Final EIR. Another tool which was used in planning the Proposed Project is cluster development. Clustered development is concentrated in a portion of the Project Site, enabling preservation of the land in agricultural use. Overall, the Proposed Project would retain, in perpetuity, 44 percent of its acreage within natural or agricultural open space.

C-9 Please see response to comments C-2 through C-8.

C-10 Closing statement is noted. No response is necessary.

Letter D

Department of Toxic Substances Control

Maziar Movassaghi, Acting Director
5796 Corporate Avenue
Cypress, California 90630

Linda S. Adams
Secretary for
Environmental Protection

Arnold Schwarzenegger
Governor

October 6, 2009

Mr. Dennis Campbell
County of San Diego
Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego, California 92123-1666
Dennis.Campbell@sdcounty.ca.gov

NOTICE OF AVAILABILITY OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE MEADOWOOD PROJECT (SCH # 2004051028), SAN DIEGO COUNTY

Dear Mr. Campbell:

The Department of Toxic Substances Control (DTSC) has received your submitted draft Environmental Impact Report (EIR) for the above-mentioned project. The following project description is stated in your document: "the proposed 389.5-acre Meadowood Project Site is located just north of State Route 76 (SR-76), APPROXIMATELY ONE-QUARTER MILE EAST OF Interstate 15 (I-15) in the Fallbrook Community Planning Area. The Meadowood project (proposed Project) is located directly east and adjacent to the approved Palomar College campus project and the Campus Park and Campus Park West properties. The Proposed Project will consists of a mix of single-family units, an elementary school site, a neighborhood park, pocket parks, 5.9 miles of multi-use trails and supporting infrastructure, including a wastewater treatment plant (WWTP), water storage tanks, and nine detention basins. Development of the Proposed Project will be phased over several years. The Project Site is within the unincorporated area of northern San Diego County, within the Fallbrook Community Planning Area. Current land uses on-site include agricultural activities, consisting mostly of citrus and avocado orchards. There are 13 homes, sheds, and agricultural buildings scattered throughout the site." DTSC has the following comments: D-1

1) The EIR should identify the current or historic uses at the project site that may have resulted in a release of hazardous wastes/substances, and any known or potentially contaminated sites within the proposed Project area. For all identified sites, the EIR should evaluate whether conditions at the site may pose a threat to human health or the environment. Following are the databases of some of the pertinent regulatory agencies: D-2

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D-1 Introductory statement is noted. No response necessary.

D-2 As discussed in Subchapter 3.5 of the Final EIR (Hazards and Hazardous Materials), a Phase I Environmental Site Assessment (ESA) was prepared for the Proposed Project by Converse Consultants and is included as Appendix J-1. A Limited Phase II Environmental Investigation was also completed for the Proposed Project by Converse Consultants. As part of this effort, the Project Site was reconnoitered on July 2 and 3, 2002, to document existing conditions and potential hazards/hazardous material concerns. In addition to the site visit, Converse Consultants reviewed historic aerial photographs to assess previous on-site uses; contracted applicable agency/industry personnel; and searched pertinent federal, state, and local hazardous material databases. The database searches included the Project Site and surrounding areas, based on search radii varying between 0.125 and 1.0 miles (depending on individual list criteria). The databases listed in this comment were searched during the preparation of the Phase I and limited Phase II ESA and the results can be found in Appendix J-1 of the Final EIR. Although the Project Site is regulated by DEH and designated as Pankey Ranch, it is not currently listed as an active site in the State of California Hazardous Waste and Substances sites lists compiled pursuant to Government Code Section 65962.5. Therefore, no impact is associated with the hazardous materials site list.

- National Priorities List (NPL): A list maintained by the United States Environmental Protection Agency (U.S.EPA).
- Envirostor: A Database primarily used by the California Department of Toxic Substances Control, at Envirostor.dtsc.ca.gov.
- Resource Conservation and Recovery Information System (RCRIS): A database of RCRA facilities that is maintained by U.S. EPA.
- Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS): A database of CERCLA sites that is maintained by U.S.EPA.
- Solid Waste Information System (SWIS): A database provided by the California Integrated Waste Management Board which consists of both open as well as closed and inactive solid waste disposal facilities and transfer stations.
- GeoTracker: A List that is maintained by Regional Water Quality Control Boards.
- Local Counties and Cities maintain lists for hazardous substances cleanup sites and leaking underground storage tanks.
- The United States Army Corps of Engineers, 911 Wilshire Boulevard, Los Angeles, California, 90017, (213) 452-3908, maintains a list of Formerly Used Defense Sites (FUDS).

D-2

2) The EIR should identify the mechanism to initiate any required investigation and/or remediation for any site that may be contaminated, and the government agency to provide appropriate regulatory oversight. If necessary, DTSC can enter an oversight agreement in order to review such documents. Please see comment No. 11 below for more information.

3) All environmental investigations, sampling and/or remediation for the site should be conducted under a Workplan approved and overseen by a regulatory agency that has jurisdiction to oversee hazardous substance cleanup. The findings of any investigations, including any Phase I or II Environmental Site Assessment Investigations should be summarized in the document. All sampling results in which hazardous substances were found should be clearly summarized in a table.

4) Proper investigation, sampling and remedial actions overseen by the respective regulatory agencies, if necessary, should be conducted at the site prior to the new development or any construction. All closure, certification or remediation approval reports by these agencies should be included in the EIR.

D-2 (cont.)

On-site agricultural development has been present since at least 1928. A Limited Phase II ESA included a total of 104 samples which were collected and analyzed during this assessment. No pesticides were detected above the applicable screening levels. With the exception of smudge pot areas, no odors or discoloration of the soil were observed in the samples collected. Total Petroleum Hydrocarbons (TPH) exceeding screening levels was detected at one of the smudge pots.

Current and historic land uses on the Project Site which may have resulted in a release of hazardous wastes/substances are introduced in Subchapter 3.5.1, Existing Conditions, of the Final EIR. The Final EIR analyzes the issue in detail in Subchapter 3.5.3, Hazardous Materials Site/Site Subject to Release of Hazardous Substance (Guideline) 5. Because of the previous agricultural uses on the site, the EIR found that there would be significant impacts relating to potential pesticide/chemical residue in the irrigation ponds and from TPH resulting from smudge pot use. Further, the EIR found that significant impacts may result from the release of asbestos or lead-based paint during demolition of buildings prior to Proposed Project construction. Mitigation measures have been set forth in the EIR in order to mitigate these impacts to a level that is less than significant. Proposed mitigation measure M-HZ-1 requires sampling and remediation (if necessary) of the soils underneath the irrigation ponds, since the soil at the bottom of the ponds could not be sampled while the ponds were full of water. Mitigation M-HZ-2 requires removal of stained soil where the smudge pots were stored, and M-HZ-3 requires asbestos and lead based paint surveys prior to demolition of residences and farm buildings and remediation if necessary.

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- Envirostor: A Database primarily used by the California Department of Toxic Substances Control, at Envirostor.dtsc.ca.gov.
- Resource Conservation and Recovery Information System (RCRIS): A database of RCRA facilities that is maintained by U.S. EPA.
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2) The EIR should identify the mechanism to initiate any required investigation and/or remediation for any site that may be contaminated, and the government agency to provide appropriate regulatory oversight. If necessary, DTSC can enter an oversight agreement in order to review such documents. Please see comment No. 11 below for more information. } D-3

3) All environmental investigations, sampling and/or remediation for the site should be conducted under a Workplan approved and overseen by a regulatory agency that has jurisdiction to oversee hazardous substance cleanup. The findings of any investigations, including any Phase I or II Environmental Site Assessment Investigations should be summarized in the document. All sampling results in which hazardous substances were found should be clearly summarized in a table. } D-4

4) Proper investigation, sampling and remedial actions overseen by the respective regulatory agencies, if necessary, should be conducted at the site prior to the new development or any construction. All closure, certification or remediation approval reports by these agencies should be included in the EIR. } D-5

D-3 The ESA identified the mechanism to initiate any required investigation and/or remediation for the site and all recommendations made by the ESA were carried over to the Final EIR) and set forth as mitigation which would be implemented prior to grading and the issuance of building permits (See Subchapter 3.5.5). All mitigation/remediation activities shall be overseen by the appropriate regulatory agency (County Department of Environmental Health (DEH) Site Assessment and Mitigation (SAM) program) and, if necessary, an oversight agreement would be prepared.

D-4 The County concurs with this comment. As stated in the EIR mitigation measures and MMRP, all environmental investigations, sampling, and remediation shall be conducted and overseen by the County DEH, a regulatory agency that has jurisdiction to oversee hazardous substance cleanup. In addition, all findings of investigations and sampling results in which hazardous substances were found shall be summarized as required.

San Diego County's SAM Program, within the Land and Water Quality Division of the DEH, consists of project managers, field technicians, supervisors, and support staff, whose primary purpose is to protect human health, water resources, and the environment within San Diego County by providing oversight of assessments and cleanups in accordance with the California Health and Safety Code. DEH requests that a workplan be submitted for review and comment prior to initiation of the site investigation work at any contaminated site where DEH is providing oversight.

D-5 The County acknowledges this comment. Although remedial actions will not be completed before finalizing the EIR, they have been identified and included in the Proposed Project's conditions of approval. As discussed in responses D-3 and D-4, mitigation measures M-HZ-1 and M-HZ-2 would ensure that proper investigation, sampling, and remedial actions are conducted prior to any grading and that these activities are overseen and documented by the proper regulatory authority (DEH).

5) If buildings or other structures, asphalt or concrete-paved surface areas are being planned to be demolished, an investigation should be conducted for the presence of other related hazardous chemicals, lead-based paints or products, mercury, and asbestos containing materials (ACMs). If other hazardous chemicals, lead-based paints or products, mercury or ACMs are identified, proper precautions should be taken during demolition activities. Additionally, the contaminants should be remediated in compliance with California environmental regulations and policies. D-6

6) Project construction may require soil excavation or filling in certain areas. Sampling may be required. If soil is contaminated, it must be properly disposed and not simply placed in another location onsite. Land Disposal Restrictions (LDRs) may be applicable to such soils. Also, if the project proposes to import soil to backfill the areas excavated, sampling should be conducted to ensure that the imported soil is free of contamination. D-7

7) Human health and the environment of sensitive receptors should be protected during the construction or demolition activities. If it is found necessary, a study of the site and a health risk assessment overseen and approved by the appropriate government agency and a qualified health risk assessor should be conducted to determine if there are, have been, or will be, any releases of hazardous materials that may pose a risk to human health or the environment.

8) If it is determined that hazardous wastes are, or will be, generated by the proposed operations, the wastes must be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations, Title 22, Division 4.5). If it is determined that hazardous wastes will be generated, the facility should also obtain a United States Environmental Protection Agency Identification Number by contacting (800) 618-6942. Certain hazardous waste treatment processes or hazardous materials, handling, storage or uses may require authorization from the local Certified Unified Program Agency (CUPA). Information about the requirement for authorization can be obtained by contacting your local CUPA.

9) If during construction/demolition of the project, the soil and/or groundwater contamination is suspected, construction/demolition in the area should cease and appropriate health and safety procedures should be implemented.

10) If the site was used for agricultural, livestock or related activities, onsite soils and groundwater might contain pesticides, agricultural chemical, organic waste or other related residue. Proper investigation, and remedial actions, if necessary, should be conducted under the oversight of and approved by a government agency at the site prior to construction of the project.

D-6 The County acknowledges this comment. Mitigation measures M-HZ-3a and M-HZ-3b are included in Subchapter 3.5.5 of the Final EIR in order to address and remediate the possibility of encountering asbestos and/or lead-based paint during demolition activities.

D-7 Mitigation measures M-HZ-1 and M-HZ-2 are included in Subchapter 3.5.5 to ensure that contaminated soil will be properly remediated and disposed. Specifically, these two mitigation measures require sampling for pesticide contamination and remediation, if necessary, as well as removal (and proper disposal) of stained soil where the smudge pots were used/stored.

Additionally, all grading activity is required to comply with federal and state requirements per the County of San Diego Grading Ordinance. Per Section 87.421(a) of the Grading Ordinance, for regular and supervised grading, the County Official may require the inspection of excavation and fills and compaction control by a soil engineer. Per Section 87.421(c), the soil engineer must file a report with the County official certifying the compaction and acceptability of all fills. Section 87.424 outlines the Safety Precaution Procedures in place if the County Official determines that further grading may endanger public or private property. The San Diego County Grading Ordinance is provided at: http://www.sdcounty.ca.gov/dpw/docs/propgradord.pdf.

The Proposed Project, as currently designed, would not include the import of any soils. If that situation changes and soil import is subsequently proposed, imported material would conform to all applicable regulatory requirements prior to use.

5) If buildings or other structures, asphalt or concrete-paved surface areas are being planned to be demolished, an investigation should be conducted for the presence of other related hazardous chemicals, lead-based paints or products, mercury, and asbestos containing materials (ACMs). If other hazardous chemicals, lead-based paints or products, mercury or ACMs are identified, proper precautions should be taken during demolition activities. Additionally, the contaminants should be remediated in compliance with California environmental regulations and policies.

6) Project construction may require soil excavation or filling in certain areas. Sampling may be required. If soil is contaminated, it must be properly disposed and not simply placed in another location onsite. Land Disposal Restrictions (LDRs) may be applicable to such soils. Also, if the project proposes to import soil to backfill the areas excavated, sampling should be conducted to ensure that the imported soil is free of contamination.

7) Human health and the environment of sensitive receptors should be protected during the construction or demolition activities. If it is found necessary, a study of the site and a health risk assessment overseen and approved by the appropriate government agency and a qualified health risk assessor should be conducted to determine if there are, have been, or will be, any releases of hazardous materials that may pose a risk to human health or the environment. D-8

8) If it is determined that hazardous wastes are, or will be, generated by the proposed operations, the wastes must be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations, Title 22, Division 4.5). If it is determined that hazardous wastes will be generated, the facility should also obtain a United States Environmental Protection Agency Identification Number by contacting (800) 618-6942. Certain hazardous waste treatment processes or hazardous materials, handling, storage or uses may require authorization from the local Certified Unified Program Agency (CUPA). Information about the requirement for authorization can be obtained by contacting your local CUPA.

9) If during construction/demolition of the project, the soil and/or groundwater contamination is suspected, construction/demolition in the area should cease and appropriate health and safety procedures should be implemented.

10) If the site was used for agricultural, livestock or related activities, onsite soils and groundwater might contain pesticides, agricultural chemical, organic waste or other related residue. Proper investigation, and remedial actions, if necessary, should be conducted under the oversight of and approved by a government agency at the site prior to construction of the project.

D-8 An assessment of health risks is included in the Final EIR as part of the air quality analysis (Chapter 2.2). The health risk evaluation conducted to determine the potential for illness due to exposure to diesel exhaust particulate matter concluded that with mitigation requiring that construction fleet utilize Toxic-Best Available Control Technology (T-BACT) and mitigation ensuring that 10 percent of the construction fleet uses any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters and/or California Air Resource Board (CARB) certified Tier I, II, or III equipment, the Proposed Project would not would result in significant health risks. In addition, the EIR concluded that the Proposed Project lies outside the land use avoidance guidelines established by CARB and that potential exposure to CO "hotspots" would be less than significant.

Schools are considered to be sensitive receptors. Schools are addressed in Subchapter 3.5.3, Hazardous Substance Within One-Quarter Mile of a School/Day Care Facility (Guideline 4), which states that "the Proposed Project does not include any potential for facilities that handle regulated substances to represent a significant hazard to children when located within one-quarter mile of a school or day care. Regulated substances are subject to California Accidental Release Prevention (CalARP) Risk Management Plan (RMP) requirements when handled at threshold levels identified in the California Code of Regulations (CCR). The specific threshold levels are not relevant because no regulated substances will be handled as a result of implementation of the Proposed Project. Additionally, the proposed on-site Waste Water Treatment Plant (WWTP) is located greater than ¼ mile from the potential school site."

The Final EIR, Chapter 3.5, Hazards, identifies the potential for the potential release of hazardous substances such as asbestos or lead-based paint during demolition of the buildings on-site. Mitigation measures require a survey prior to demolition and the safe removal of hazardous substances. The EIR therefore, provides adequate disclosure health risks and no further analysis is necessary.

5) If buildings or other structures, asphalt or concrete-paved surface areas are being planned to be demolished, an investigation should be conducted for the presence of other related hazardous chemicals, lead-based paints or products, mercury, and asbestos containing materials (ACMs). If other hazardous chemicals, lead-based paints or products, mercury or ACMs are identified, proper precautions should be taken during demolition activities. Additionally, the contaminants should be remediated in compliance with California environmental regulations and policies.

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7) Human health and the environment of sensitive receptors should be protected during the construction or demolition activities. If it is found necessary, a study of the site and a health risk assessment overseen and approved by the appropriate government agency and a qualified health risk assessor should be conducted to determine if there are, have been, or will be, any releases of hazardous materials that may pose a risk to human health or the environment.

8) If it is determined that hazardous wastes are, or will be, generated by the proposed operations, the wastes must be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations, Title 22, Division 4.5). If it is determined that hazardous wastes will be generated, the facility should also obtain a United States Environmental Protection Agency Identification Number by contacting (800) 618-6942. Certain hazardous waste treatment processes or hazardous materials, handling, storage or uses may require authorization from the local Certified Unified Program Agency (CUPA). Information about the requirement for authorization can be obtained by contacting your local CUPA. D-9

9) If during construction/demolition of the project, the soil and/or groundwater contamination is suspected, construction/demolition in the area should cease and appropriate health and safety procedures should be implemented.

10) If the site was used for agricultural, livestock or related activities, onsite soils and groundwater might contain pesticides, agricultural chemical, organic waste or other related residue. Proper investigation, and remedial actions, if necessary, should be conducted under the oversight of and approved by a government agency at the site prior to construction of the project.

D-9 As stated in Subchapter 3.5.3, Hazardous Substance Use (Guideline 3) of the Final EIR, the Proposed Project includes primarily residential and associated uses. No new uses are proposed on the Project Site which would handle, transport, or store hazardous materials.

Any pesticide used within the agricultural groves would be handled in accordance with the County's Pesticide Regulation Program, which is the local program overseen by the County Agricultural Commissioner (CAC) and the Department of Agriculture Weights and Measures (AWM). Permits are required anytime pesticides are applied to agricultural lands, whether by an owner/operator or a contracted entity. If the agricultural commissioner determines that the permit would likely cause a substantial adverse impact, the commissioner must determine if there is a feasible alternative (including no pesticide application) or a feasible mitigation measure that would substantially reduce the adverse impact. If there is no feasible alternative or mitigation measure, the commissioner must deny the permit. Thus, no impacts would occur relative to pesticide application.

The proposed on-site WWTP would utilize chemicals during operation which may be classified as hazardous, including Sodium Hypochlorite (NaHCl) for disinfection, Aluminum sulfate (Alum) for flocculation, and a polymer for solids thickening. However, it is not typical for wastewater treatment operators to use any of these chemicals in a concentration that would be considered "hazardous." Additionally, it should be noted that the use of NaHCl for disinfection would eliminate the need to use the extremely toxic chlorine gas.

5) If buildings or other structures, asphalt or concrete-paved surface areas are being planned to be demolished, an investigation should be conducted for the presence of other related hazardous chemicals, lead-based paints or products, mercury, and asbestos containing materials (ACMs). If other hazardous chemicals, lead-based paints or products, mercury or ACMs are identified, proper precautions should be taken during demolition activities. Additionally, the contaminants should be remediated in compliance with California environmental regulations and policies.

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7) Human health and the environment of sensitive receptors should be protected during the construction or demolition activities. If it is found necessary, a study of the site and a health risk assessment overseen and approved by the appropriate government agency and a qualified health risk assessor should be conducted to determine if there are, have been, or will be, any releases of hazardous materials that may pose a risk to human health or the environment.

8) If it is determined that hazardous wastes are, or will be, generated by the proposed operations, the wastes must be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations, Title 22, Division 4.5). If it is determined that hazardous wastes will be generated, the facility should also obtain a United States Environmental Protection Agency Identification Number by contacting (800) 618-6942. Certain hazardous waste treatment processes or hazardous materials, handling, storage or uses may require authorization from the local Certified Unified Program Agency (CUPA). Information about the requirement for authorization can be obtained by contacting your local CUPA.

9) If during construction/demolition of the project, the soil and/or groundwater contamination is suspected, construction/demolition in the area should cease and appropriate health and safety procedures should be implemented. } D-10

10) If the site was used for agricultural, livestock or related activities, onsite soils and groundwater might contain pesticides, agricultural chemical, organic waste or other related residue. Proper investigation, and remedial actions, if necessary, should be conducted under the oversight of and approved by a government agency at the site prior to construction of the project. } D-11

D-10 As indicated in the responses above, Proposed Project implementation would require a number of specific measures to evaluate and (if applicable) remediate potential impacts related to hazards and hazardous materials. These measures would include appropriate sampling, testing and material/waste management, with these efforts to be conducted pursuant to all applicable regulatory requirements (including pertinent DTSC criteria). The County will inspect the site throughout the grading and construction phases of the Proposed Project to ensure compliance with grading and building permits. If contaminated soil or groundwater is observed or suspected, the DEH will be notified to determine requirements for investigation and/or remediation. Appropriate measures would be implemented to address the situation pursuant to all applicable regulatory requirements. Moreover, mitigation measures M-HZ-1 and M-HZ-2 in the Final EIR address contamination and health/safety issues during construction and demolition activities. Specifically, these two mitigation measures require sampling for pesticide contamination and remediation if necessary as well as removal and proper disposal of stained soil where the smudge pots were used/stored.

D-11 The Project Site has been used previously for agricultural and livestock related activities. Please refer to response D-2 for an explanation of the actions which shall be required for the Proposed Project in order to remediate pesticides, agricultural chemicals, and other related residues.

11) DTSC can provide guidance for cleanup oversight through an Environmental Oversight Agreement (EOA) for government agencies which would not be responsible parties under CERCLA, or a Voluntary Cleanup Agreement (VCA) for private parties. For additional information on the EOA or VCA, please see www.dtsc.ca.gov/SiteCleanup/Brownfields, or contact Ms. Maryam Tasnif-Abbasi, DTSC's Voluntary Cleanup Coordinator, at (714) 484-5489. } D-12

If you have any questions regarding this letter, please contact Mr. Rafiq Ahmed, Project Manager, at rahmed@dtsc.ca.gov or by phone at (714) 484-5491. } D-13

Sincerely,

Greg Holmes
Unit Chief
Brownfields and Environmental Restoration Program - Cypress Office

cc: Governor's Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044
state.clearinghouse@opr.ca.gov.

CEQA Tracking Center
Department of Toxic Substances Control
Office of Environmental Planning and Analysis
1001 I Street, 22nd Floor, M.S. 22-2
Sacramento, California 95814
nritter@dtsc.ca.gov.

CEQA#2699

D-12 As noted in the responses above, Proposed Project implementation would conform to all applicable regulatory requirements, including measures related to agency oversight of hazardous materials.

D-13 Closing comment noted; no response necessary.

Letter E

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
e-mail: ds_nahc@pacbell.net

September 22, 2009

Mr. Dennis Campbell
COUNTY OF SAN DIEGO
5201 Ruffin Road, Suite B
San Diego, CA 92123-1666

Re: SCH#2004051028; CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the **The Meadowood Project;** located in the Fallbrook Area of northern San Diego County, California

Dear Mr. Campbell:

The Native American Heritage Commission (NAHC) is the state 'trustee agency' pursuant to Public Resources Code §21070 for the protection and preservation of California's Native American Cultural Resources.. The California Environmental Quality Act (CEQA - CA Public Resources Code §21000-21177, amended in 2009) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the California Code of Regulations §15064.5(b)(c)(f) CEQA guidelines). Section 15382 of the CEQA Guidelines defines a significant impact on the environment as "a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ...objects of historic or aesthetic significance." In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE)', and if so, to mitigate that effect. To adequately assess the project-related impacts on historical resources, the Commission recommends the following. E-1

The Native American Heritage Commission did perform a Sacred Lands File (SLF) search in the NAHC SLF Inventory, established by the Legislature pursuant to Public Resources Code §5097.94(a) and Native American Cultural resources **were not identified** within one-half mile of the APEs.. There are, however, Native American cultural resources in close proximity to the APE. Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Enclosed are the names of the nearest tribes and interested Native American individuals that the NAHC recommends as 'consulting parties,' for this purpose, that may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We recommend that you contact persons on the attached list of Native American contacts. A Native American Tribe or Tribal Elder may be the only source of information about a cultural resource.. Also, the NAHC recommends that a Native American Monitor or person be employed whenever a professional archaeologist is employed during the 'Initial Study' and in other phases of the environmental study.. Furthermore we suggest that you contact the California Historic Resources Information System (CHRIS) at the Office of Historic Preservation (OHP) Coordinator's office (at (916) 653-7278, for referral to the nearest OHP Information Center of which there are 11.. E-2 E-3

Consultation with tribes and interested Native American tribes and individuals, as consulting parties, on the NAHC list ,should be conducted in compliance with the requirements of federal NEPA (42 U.S.C. 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 [f]*et se),* and NAGPRA (25 U.S.C. 3001-3013), as appropriate..

Lead agencies should consider avoidance, as defined in Section 15370 of the California Environmental Quality Act (CEQA) when significant cultural resources could be affected by a

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E-1 Introductory comment is noted. No response is necessary.

E-2 Comment noted. The cultural resources survey for the Proposed Project indicated that the major portion of the significant Pankey Site CA-SDI-682 is located just to the east of the Project Site. The survey identified three additional loci of this site within the Proposed Project. Two of the loci are significant and will be preserved by open space and capping.

E-3 A Sacred Lands check was conducted on July 8, 2005. The NAHC provided staff with a list of Native American organizations/individuals on July 22, 2005. Staff contacted the listed organizations/individuals on October 14, 2005. Because the Proposed Project includes a specific plan amendment and a general plan amendment, tribal consultation pursuant to SB-18 was required. The County coordinated a site field visit with the local tribes on September 8, 2008 as part of formal consultation. The Luiseño Tribes were represented by the La Jolla Band of Luiseno Indians, Pala Band of Mission Indians, Pauma/Yuima Band of Mission Indians, Rincon San Luiseno Band of Mission Indians, and San Luis Rey Band of Mission Indians.

STATE OF CALIFORNIA Arnold Schwarzenegger, *Governor*

NATIVE AMERICAN HERITAGE COMMISSION
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September 22, 2009

Mr. Dennis Campbell
COUNTY OF SAN DIEGO
5201 Ruffin Road, Suite B
San Diego, CA 92123-1666

Re: SCH#2004051028; CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the **The Meadowood Project;** located in the Fallbrook Area of northern San Diego County, California

Dear Mr. Campbell:

The Native American Heritage Commission (NAHC) is the state 'trustee agency' pursuant to Public Resources Code §21070 for the protection and preservation of California's Native American Cultural Resources.. The California Environmental Quality Act (CEQA - CA Public Resources Code §21000-21177, amended in 2009) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the California Code of Regulations §15064.5(b)(c)(f) CEQA guidelines). Section 15382 of the CEQA Guidelines defines a significant impact on the environment as "a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ...objects of historic or aesthetic significance." In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE)', and if so, to mitigate that effect. To adequately assess the project-related impacts on historical resources, the Commission recommends the following.

The Native American Heritage Commission did perform a Sacred Lands File (SLF) search in the NAHC SLF Inventory, established by the Legislature pursuant to Public Resources Code §5097.94(a) and Native American Cultural resources **were not identified** within one-half mile of the APEs.. There are, however, Native American cultural resources in close proximity to the APE. Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Enclosed are the names of the nearest tribes and interested Native American individuals that the NAHC recommends as 'consulting parties,' for this purpose, that may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We recommend that you contact persons on the attached list of Native American contacts. A Native American Tribe or Tribal Elder may be the only source of information about a cultural resource.. Also, the NAHC recommends that a Native American Monitor or person be employed whenever a professional archaeologist is employed during the 'Initial Study' and in other phases of the environmental study.. Furthermore we suggest that you contact the California Historic Resources Information System (CHRIS) at the Office of Historic Preservation (OHP) Coordinator's office (at (916) 653-7278, for referral to the nearest OHP Information Center of which there are 11..

E-4
E-5

Consultation with tribes and interested Native American tribes and individuals, as consulting parties, on the NAHC list should be conducted in compliance with the requirements of federal NEPA (42 U.S.C. 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 [f]*et se),* and NAGPRA (25 U.S.C. 3001-3013), as appropriate..

Lead agencies should consider avoidance, as defined in Section 15370 of the California Environmental Quality Act (CEQA) when significant cultural resources could be affected by a

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E-4 The Proposed Project would subdivide 389.5 acres into a residential subdivision that will include an elementary school, private parks, trails, community facilities, open space, and agriculture. Because significant archaeological and historic sites have been identified on the Project Site, a grading monitoring program that includes the requirement for Native American representation is a mitigation measure required for approval of the Proposed Project. In addition, the Proposed Project must comply with the San Diego County Grading, Clearing and Watercourse Ordinance (§87.101-87.804), CEQA §15064.5(d), and §7050.5 of the Health and Safety Code. In addition, Section 87.429 of the Grading, Clearance and Watercourse Ordinance requires the suspension of grading operations when human remains or Native American artifacts are encountered.

E-5 A records search using the California Historic Resources Inventory System (CHRIS) that is provided to the County by the South Coastal Information Center (SCIC) was conducted. A total of 27 studies have been conducted in the areas adjacent to the Project Site. One previously recorded resource was identified in the Area of Potential Effect (APE). Twenty-seven sites have been previously recorded within one mile of the Proposed Project area.

STATE OF CALIFORNIA Arnold Schwarzenegger, *Governor*

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
e-mail: ds_nahc@pacbell.net

September 22, 2009

Mr. Dennis Campbell
COUNTY OF SAN DIEGO
5201 Ruffin Road, Suite B
San Diego, CA 92123-1666

Re: SCH#2004051028; CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the **The Meadowood Project;** located in the Fallbrook Area of northern San Diego County, California

Dear Mr. Campbell:

The Native American Heritage Commission (NAHC) is the state 'trustee agency' pursuant to Public Resources Code §21070 for the protection and preservation of California's Native American Cultural Resources.. The California Environmental Quality Act (CEQA - CA Public Resources Code §21000-21177, amended in 2009) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the California Code of Regulations §15064.5(b)(c)(f) CEQA guidelines). Section 15382 of the CEQA Guidelines defines a significant impact on the environment as "a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ...objects of historic or aesthetic significance." In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE)', and if so, to mitigate that effect. To adequately assess the project-related impacts on historical resources, the Commission recommends the following.

The Native American Heritage Commission did perform a Sacred Lands File (SLF) search in the NAHC SLF Inventory, established by the Legislature pursuant to Public Resources Code §5097.94(a) and Native American Cultural resources **were not identified** within one-half mile of the APEs.. There are, however, Native American cultural resources in close proximity to the APE. Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Enclosed are the names of the nearest tribes and interested Native American individuals that the NAHC recommends as 'consulting parties,' for this purpose, that may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We recommend that you contact persons on the attached list of Native American contacts. A Native American Tribe or Tribal Elder may be the only source of information about a cultural resource.. Also, the NAHC recommends that a Native American Monitor or person be employed whenever a professional archaeologist is employed during the 'Initial Study' and in other phases of the environmental study.. Furthermore we suggest that you contact the California Historic Resources Information System (CHRIS) at the Office of Historic Preservation (OHP) Coordinator's office (at (916) 653-7278, for referral to the nearest OHP Information Center of which there are 11..

Consultation with tribes and interested Native American tribes and individuals, as consulting parties, on the NAHC list ,should be conducted in compliance with the requirements of federal NEPA (42 U.S.C. 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 [f]*et se),* and NAGPRA (25 U.S.C. 3001-3013), as appropriate.. E-6

Lead agencies should consider avoidance, as defined in Section 15370 of the California Environmental Quality Act (CEQA) when significant cultural resources could be affected by a E-7

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E-6 Consultation with tribes and interested individuals occurs on all County discretionary projects that require environmental review. Please see response to comment E-3 for additional information concerning Native American consultation. The County coordinated a site field visit with the local tribes on September 8, 2008 as part of formal consultation. The Luiseño Tribes represented at the field visit were the La Jolla Band of Luiseño Indians, Pala Band of Mission Indians, Pauma/Yuima Band of Mission Indians, Rincon San Luiseño Band of Mission Indians and San Luis Rey Band of Mission Indians. These tribes have been invited to participate in the public review process as well as the public hearings.

E-7 Based on an analysis of records and a survey of the property by County-approved archaeologists Susan Hector and Sinéad Ní Ghabhláin, with ASM Affiliates, Inc. on September 29 and 30, 2003, it has been determined that there are several cultural resources within the Project Site. These resources include the significant prehistoric Pankey site CA-SDI-682 and six historic ranch buildings. A cultural resources report titled, "Cultural Resources Survey, Archaeological Testing, and Historic Building Evaluation for the Proposed Meadowood Project, San Diego County, California," prepared by ASM Affiliates and dated April 2009 evaluated the significance of these cultural resources. Based on the results of this study, it has been determined that portions of CA-SDI-682 that are within the APE are significant pursuant to the CEQA Guidelines, Section 15064.5. The Proposed Project will indirectly impact these resources. However, impacts would be reduced to a level below significant with the implementation of design considerations and mitigation measures that include site capping, easement protection, and temporary fencing during grading.

project. Also, Public Resources Code Section 5097.98 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery. Discussion of these should be included in your environmental documents, as appropriate. E-8

The authority for the SLF record search of the NAHC Sacred Lands Inventory, established by the California Legislature, is California Public Resources Code §5097.94(a) and is exempt from the CA Public Records Act (c.f. California Government Code §6254.10). The results of the SLF search are confidential. However, Native Americans on the attached contact list are not prohibited from and may wish to reveal the nature of identified cultural resources/historic properties. Confidentiality of "historic properties of religious and cultural significance' may also be protected the under Section 304 of the NHPA or at the Secretary of the Interior' discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C, 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APE and possibly threatened by proposed project activity. E-9

CEQA Guidelines, Section 15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American, identified by the NAHC, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens. E-10

Health and Safety Code §7050.5, Public Resources Code §5097.98 and Sec. §15064.5 (d) of the California Code of Regulations (CEQA Guidelines) mandate procedures to be followed, including that construction or excavation be stopped in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery until the county coroner or medical examiner can determine whether the remains are those of a Native American. . Note that §7052 of the Health & Safety Code states that disturbance of Native American cemeteries is a felony. E-11

Again, Lead agencies should consider avoidance, as defined in §15370 of the California Code of Regulations (CEQA Guidelines), when significant cultural resources are discovered during the course of project planning and implementation

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,

Dave Singleton
Program Analyst

Attachment: List of Native American Contacts

Cc: State Clearinghouse

E-8 All projects are required to conform to §7050.5 of the Health and Safety Code and Public Resource Code Section 5097.98. In addition, archaeological and Native American monitors will be at the site during grading to ensure that should human remains be uncovered, the proper procedures will be followed and that the remains will be treated with care and respect. See response to comment E-4, above.

E-9 All documents that contain information on the location of sensitive cultural resources submitted to the County of San Diego are confidential documents. These confidential documents can only be viewed by staff archaeologists who meet the Secretary of Interior's standards for qualified historians/archaeologists. In addition, all consulting historians/ archaeologist that submit cultural resource documents to the County are required to meet the Secretary of Interior's standards for qualification and must submit sensitive cultural resource information as confidential documents. See responses to comments E-3 and E-8 above for consultation concerning Native American tribes and interested individuals.

E-10 The County agrees with this comment. The Proposed Project must comply with the San Diego County Grading, Clearing and Watercourse Ordinance (§87.101-87.804), CEQA §15064.5(d), and §7050.5 of the Health and Safety Code. In addition, Section 87.429 of the Grading, Clearance and Watercourse Ordinance requires the suspension of grading operations when human remains or Native American artifacts are encountered. See responses to comments E-4 and E-8, above.

E-11 The County agrees with this comment. All projects are required to conform to §7050.5 of the Health and Safety Code, §5097.98 of the Public Resources Code, and §15064.5(d) of CEQA. In addition, Section 87.429 of the Grading, Clearance and Watercourse Ordinance requires the suspension of grading operations when human remains or Native American artifacts are encountered. See responses to comments E-4, E-8 and E-10, above.

project. Also, Public Resources Code Section 5097.98 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery. Discussion of these should be included in your environmental documents, as appropriate.

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Again, Lead agencies should consider avoidance, as defined in §15370 of the California Code of Regulations (CEQA Guidelines), when significant cultural resources are discovered during the course of project planning and implementation } E-12

Please feel free to contact me at (916) 653-6251 if you have any questions. } E-13

Sincerely,

Dave Singleton
Program Analyst

Attachment: List of Native American Contacts

Cc: State Clearinghouse

E-12 The portions of archaeological site CA-SDI-682 that are on the Project Site will be capped and preserved by an easement. See response to comment E-7, above.

E-13 Closing comment noted. No response is necessary.

Native American Contact
San Diego County
September 22, 2009

Pauma & Yuima
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(760) 724-8505
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Rincon Band of Mission Indians
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Valley Center , CA 92082
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(760) 749-8901 Fax

Kupa Cultural Center (Pala Band)
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cupa@palatribe.com
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(760) 742-4543 - FAX

San Luis Rey Band of Mission Indians
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La Jolla Band of Mission Indians
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(760) 742-3790
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San Luis Rey Band of Mission Indians
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Mel Vernon, Chairperson
San Luis Rey Band of Mission Indians
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Pauma Valley Band of Luiseño Indians
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(760) 617-2872
(760) 742-3422 - FAX

This list is current only as of the date of this document.
Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code. and federal NEPA (42 USC 4321-43351), NHPA Sections 106, 4(f) (16 USC 470(f) and NAGPRA (25 USC 3001-3013)

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2004051028; CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the Meadowood Project; located in the Fallbrook Area of northern San Diego County, California.

Letter F

State of California Natural Resources Agency

Memorandum

To: County of San Diego
5201 Ruffin Road, Suite B
San Diego, CA 92123-1666
Attn: Dennis Campbell

Date: October 9, 2009

Website: www.fire.ca.gov

Re: Meadowood Project- Fallbrook Area
SCH2004051028
Draft Environmental Impact Report

After review of the above referenced document I have the following comments:

2.3 Proposed widening is dependent on Caltrans completing the project. If Caltrans doesn't, then the project enters into fair share. Will this be completed prior to the project's start or completion? This could compromise evacuation and access for responding emergency vehicles. } F-1

The fire plan states that the project area is located in the North County Fire Protection District (NCFPD); however, it also states that efforts are underway to have the district annex the project area into NCFPD. The fire plan states that wildfire threats are diminishing as both development and agricultural land use fragments the natural landscape. However, wildfire threats increase as more dwellings encroach on the wildlands and also creates complications to control efforts in the event of wildland fire. They use statistics that state there were ten (10) large wildland fires of over 100 acres during the 50 years in the general area. Statistics have shown that large fires have increased as wildland urban interface has increased. The current lower statistics may be due to the project areas agricultural use and lower dwelling density of the area. The fire plan addresses that a connection with Pala Mesa Drive at Interstate 15 Bridge is required. However, under 2.3 Transportation/Traffic, it states that under M-TR-4 cumulative impacts to study area street/State Route segments shall be mitigated through applicant participation in the TIF program and the level of significance with mitigation is less than significant. Will this be completed prior to the project completion? If not, this would be significant and possibly unmitigable.

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PLEASE REMEMBER TO CONSERVE ENERGY. FOR TIPS AND INFORMATION, VISIT "FLEX YOUR POWER" AT WWW.CA.GOV.

F-1 As stated in Subchapter 2.3.1 of the Final EIR, the portion of the SR-76 widening project (Caltrans' SR-76 East Project) is currently estimated to be completed in 2015. As the Final EIR goes on to state in Subchapter 2.3.6, "If the Caltrans SR-76 project is completed prior to occupancy of the first residential unit within the Proposed Project, the direct impacts to the SR-76 would be fully mitigated. Because this mitigation measure addresses a direct Project impact and the County of San Diego cannot guarantee implementation of this improvement prior to the first residential unit, impacts could remain significant and unmitigated. A Statement of Overriding Considerations would be required to be adopted to address this significant and unmitigated impact."

The portions of SR-76 to be widened by Caltrans and referenced in this comment are west of I-15. Another SR-76 widening project (by Granite Construction Company), extending east of I-15 for approximately 1.4 miles, has already been completed. The Project Site fronts this portion of SR-76 and this completed alignment was factored into response time calculations.

The North County Fire Protection District (NCFPD) would provide first response, and an NCFPD station is located on the southwest corner of Pala Mesa Drive and Old Highway 395. Thus, response times were calculated from this station to the farthest dwelling unit in the Proposed Project. Calculated response times for the Proposed Project did not take SR-76 into account. Response times are based on the use of Old Highway 395 east via the proposed extension of Pala Mesa Drive and Street R (aka Pankey Place) to Horse Ranch Creek Road. As confirmed by the NCFPD in their June 26, 2009 letter, and stated in Subchapter 3.5.3, Emergency Response (Guideline 10) of the Final EIR, the Proposed Project will meet emergency travel time objective identified in the Public Facility Element and impacts associated with emergency response time will be less than significant. Therefore, the future widening of portions of SR-76 west of I-15 have no bearing on fire response times.

State of California Natural Resources Agency

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The fire plan states that the project area is located in the North County Fire Protection District (NCFPD); however, it also states that efforts are underway to have the district annex the project area into NCFPD. The fire plan states that wildfire threats are diminishing as both development and agricultural land use fragments the natural landscape. However, wildfire threats increase as more dwellings encroach on the wildlands and also creates complications to control efforts in the event of wildland fire. They use statistics that state there were ten (10) large wildland fires of over 100 acres during the 50 years in the general area. Statistics have shown that large fires have increased as wildland urban interface has increased. The current lower statistics may be due to the project areas agricultural use and lower dwelling density of the area. The fire plan addresses that a connection with Pala Mesa Drive at Interstate 15 Bridge is required. However, under 2.3 Transportation/Traffic, it states that under M-TR-4 cumulative impacts to study area street/State Route segments shall be mitigated through applicant participation in the TIF program and the level of significance with mitigation is less than significant. Will this be completed prior to the project completion? If not, this would be significant and possibly unmitigable. } F-2

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F-1 (cont.)

Likewise, evacuation routes would not be compromised due to the SR-76 projects. In addition to the Pala Mesa Drive access, residences would be able to exit the Project Site via Old Highway 395 north to Stewart Canyon Road and south to Horse Ranch Creek Road. The Proposed Project also includes an emergency road in the northeast portion of the Project Site to connect Street E to Rice Canyon Road. The availability of these evacuation routes would allow the safe exit of residences regardless of the construction which may be ongoing on SR-76. It is noted that the SR-76 East project is estimated to the completed by the year 2015.

F-2 The Fire Protection Plan, Section 1.0, states that the Proposed Project "is adjacent to the service boundaries of the North County Fire Protection District (NCFPD), and within the District's sphere of influence." It goes on to state "At this time no portion of the Proposed Project area is located in the District. Efforts are underway by the Project Applicant to annex the Proposed Project into the NCFPD." Additionally, it is stated in Final EIR Subchapter 4.3.1, "The Project Site is adjacent to the service boundaries of the NCFPD and is within the NCFPD's sphere of influence. The Project Site is proposed to be annexed into the NCFPD." Both references accurately reflect the Proposed Project's current relationship with the NCFPD.

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F-3 The County agrees that on a regional scale, development has increased the wildland urban interface.

The project includes a Fire Protection Plan (FPP) as Appendix J-2. The FPP provides redundant layers of fire protection requirements that would serve to reduce the fire risk as a result of developing in the wildland urban interface. The Final EIR Figure 3.5-5 shows the Conceptual Fire Protection Plan Map, which depicts the location of the fuel modification zones which are a minimum of 100 feet from all structures. Specifically, "Zone A" is comprised of the first 50 feet around structures and provides defensible space for fire suppression forces to protect those structures from radiant and convective heat. It is an irrigated zone, free of all combustible construction, firewood, propane tanks, fuel, and flammable native and ornamental vegetation. "Zone B" is an additional 50 feet beginning at the outer edge of "Zone A."

Acceptable plantings and required landscaping and maintenance for both Zone A and Zone B are detailed in the Fire Protection Plan. Additionally, the Proposed Project's Homeowners Association will be responsible to ensure that fuel modification zones are maintained.

In addition to the required fuel treatments and actions mandated within the Fuel Modification Zones, the FPP requires additional measures to reduce wildfire threats. These include infrastructure improvements and residential education.

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F-3

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F-3 (cont.)

Specific infrastructure improvements are detailed on pages 34 through 36 of the FPP. As required by the NCFPD, the FPP mandates a minimum of 40 residential type fire hydrants, with drip caps and blue dot markers having a flow capable of supplying 1,500 gallons per minute (GPM) at 20 pounds residual pressure with no less than 2,500 GPM available in the mains. Conformance with the FPP also assues that no road within the development shall exceed a 20 percent grade or has a width lessthan 24 feet. Additionally, all cul-de-sacs on access roads of greater than 150 feet in length shall be provided with a minimum 42-foot AC radius turnaround and brush management is required along all roadways as dertailed in sections 5.2.6 and 5.2.7 of the FPP.

Pursuant to section 5.3 of the FPP, "The H.O.A. shall yearly provide the lot owners with information regarding the wildfire mitigation efforts necessary for community fire safety that are contained within this FPP." The FPP will be made available to all residents; information related to homeowner saftety is detailed on page 32 of the FPP. Additionally, pages 33 to 34 of the FPP provides specific safety measure to be included in the Meadowood Project Covenant and Agreement.

As detailed in Subchapter 3.5.3, Fire Hazard (Guidelines 8 and 9) of the Final EIR, and reiterated herein, the maintenance of fuel modification zones, coupled with both infrastructure improvements and residential education programs will assure that wildfire threats to the Proposed Project are less than significant.

State of California Natural Resources Agency

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F-3

F-4

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PLEASE REMEMBER TO CONSERVE ENERGY. FOR TIPS AND INFORMATION, VISIT "FLEX YOUR POWER" AT WWW.CA.GOV.

F-4 The commenter has provided an incorrect reference to M-TR-4. M-TR-4 relates specifically to study area roadway/State Route segments to which the Proposed Project would have a cumulative traffic impact. The improvement of concern in this comment is Pala Mesa Drive at I-15. As stated in Subchapter 2.3.3, Existing + Project of the Final EIR, construction of Pala Mesa Drive from the I-15 bridge to SR-76 is a feature of the Proposed Project and will be constructed by the first applicant to proceed between the Proposed Project, Campus Park and Palomar College. As such, construction of this connection is not dependent on TIF funding. Furthermore, the Proposed Project phasing takes into account the timing of improvements to Pala Mesa Drive from the existing bridge crossing to the Project Site via Street R and the northeastern extension of Street E to Rice Canyon Road to ensure that emergency services response time will be within the five minute requirement for the furthest dwelling.

In addition, I would recommend and strongly encourage that all wires and other service lines be placed underground. This action would greatly enhance public and firefighter safety in the event of a wildland fire and also allow access which typically is compromised because of burnt poles and down lines, which are indicative of overhead applications. This will also greatly increase aerial firefighting operational safety. F-5

Mark Ostrander
CAL FIRE
San Diego Unit
Environmental Coordinator
P.O. Box 1560
Boulevard, CA 91905

Mandated Due Date:	10/13/09
Date Document Received in Mail:	10/01/09
Comment Letter Date:	10/09/09
Date Mailed:	10/09/09

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F-5 Undergrounding of utilities is a part of the Proposed Project. As stated in Final EIR Appendix K, San Diego County General Plan Compliance Report for the Meadowood Project, I-15 Corridor Subregional Plan and Guidelines, Goal E. "Public Utilities and Safety Standards, Policy 3, utilities (electrical, telephone, cable, etc.) will be placed underground."

Letter G

LAFCO
San Diego Local Agency Formation Commission

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(619) 531-5400 • FAX (619) 557-4190
Website: www.sdlafco.org

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John Ingalls
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Irrigation District

Andrew L. Vanderlaan
Public Member

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Supervisors

Sherri Lightner
Councilmember
City of San Diego

Jim Janney
Mayor
City of Imperial Beach

Jo MacKenzie
Vista Irrigation District

Harry Mathis
Public Member

Executive Officer

Michael D. Ott

Counsel

William D. Smith

October 12, 2009

TO: Dennis Campbell
Department of Planning and Land Use (O650)

FROM: Chief, Governmental Services
Local Agency Formation Commission (A216)

SUBJECT: Meadowood: GPA 04-002; SPA 04-001; REZ04-004; TM 5354; S04-005; S04-006; S04-007; MUP 08-023; LOG NO. 04-02-004; SCH NO. 2004051028

Thank you for the opportunity to provide comments on the above-referenced project. As you know, LAFCO is responsible for encouraging the efficient provision of public services and has purview over changes to local government organization and any related sphere of influence actions.

Those sections of the draft environmental impact report (DEIR) that pertain most closely to LAFCO's regulatory authority have been reviewed, including Agriculture, Utilities, and Growth Inducement. In addition, we offer additional comments based upon a cursory review of the Air Quality and Land Use sections. G-1

Since jurisdictional changes would be required to implement the proposed project, LAFCO will have discretion over associated governmental structure changes and will be a responsible agency for the related environmental review. Additionally, it should be noted that State Law contains factors that are to be considered when LAFCO reviews a proposal (Government Code Section 56668[a–n]). Some of the topics are: population, topography, drainage basins; growth; the need for public services; adequacy and service availability/capacity; affects on adjacent territory; impacts on agricultural resources; community character; conformity with general plans and land use designations; and local policies. G-2

Project Description

The Meadowood project proposes the construction of a residential community consisting of a maximum of 844 dwelling units on approximately 390 acres. The number of homes would change to 886 units if the Bonsall School District does not build on the site earmarked for a school. Currently, agricultural activities are located on 210 acres contained within the project boundary. G-3

G-1 Introductory comment is noted. No response is necessary.

G-2 The County acknowledges that LAFCO would have discretion over governmental structure changes associated with the Proposed Project and would be a responsible agency for the related environmental review. This is consistent with the information in the EIR in Subchapter 1.5.1, Table 1-6 Matrix of Project Approvals/Permits.

G-3 The comment is a summary of the Proposed Project. No response is necessary.

LETTER

Open Space and Agricultural Lands Preservation

According to Government Code Sections 56001 and 56301, LAFCOs have been directed by the State Legislature to preserve open space and prime agricultural lands and to establish local policies to do so. Thus, San Diego LAFCO Policy L-101 encourages preservation of open space and prime agricultural land, and discourages the conversion of agricultural land to other uses. State Law and LAFCO policy also require the evaluation of how spheres of influence and/or changes of local governmental organization may affect open space and prime agricultural lands. Proposals must be further reviewed for their effect on maintaining the physical and economic integrity of agricultural lands. The exception to these directives is if the conversion to another use would not promote the planned, orderly, and efficient development of an area.

G-4

As stated on page S-4 – "Current land uses on-site include agricultural activities, consisting mostly of citrus and avocado orchards … about 54% of the site. " It should be noted that there is a difference between the definition of agricultural lands in the California Environmental Quality Act (CEQA) and LAFCO's definition found in Government Code Section 56016, which states – "Agricultural lands means land currently used for the purpose of producing an agricultural commodity for commercial purposes, land left fallow under a crop rotational program, or land enrolled in an agricultural subsidy or set-aside program." In addition, Government Code Section 56064 contains a definition of prime agricultural land based on USDA, Storie Index, carrying capacity variables, etc.

The agricultural resources section needs to be revised based upon the following issues: (1) contradictory conclusions between LESA model findings and the section's final conclusions as well as the addition of an evaluation of impacts to non-prime and prime agricultural land per the definitions of such lands in Government Code Sections 56016 and 56064; (2) adequacy of the proposed mitigation measures; (3) lack of discussion regarding the impacts of the proposed land uses and agricultural activities; and (4) inadequate discussion of cumulative impacts.

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2

RESPONSE

G-4 The County acknowledges that San Diego LAFCO Policy L-101 encourages preservation of open space and prime agricultural land and that State Law and LAFCO policy require the evaluation of how spheres of influence changes and/or changes of local governmental organization may affect open space and prime agricultural lands. Subchapter 4.7.3, Conflict with Applicable Plan, Policy, or Regulation (Guideline 4) of the EIR states that a significant impact to agricultural resources would occur as a result of project implementation if the project will conflict with any applicable plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. LAFCO Policy L-101 is included in this discussion as LAFCO is a responsible agency with discretion over the sphere of influence determination and annexation of the Project Site to an MWD for both water and sewer service and to the North County Fire Protection District for fire service.

As stated in the EIR, according to Policy L-101, LAFCO should:

1. Discourage proposals that would convert prime agricultural or open space lands unless that action would not promote the planned, orderly, and efficient development of an area or the affected jurisdiction has identified all prime agricultural lands within its sphere of influence and adopted measures that would effectively preserve prime agricultural lands for agricultural use;

2. Require pre-zoning of territory (city only) to identify areas subject to agricultural preservation/planned development; and

3. Adhere to San Diego LAFCO's adopted procedures to define agricultural and open space lands and to determine when a proposal may adversely affect such lands.

Open Space and Agricultural Lands Preservation

According to Government Code Sections 56001 and 56301, LAFCOs have been directed by the State Legislature to preserve open space and prime agricultural lands and to establish local policies to do so. Thus, San Diego LAFCO Policy L-101 encourages preservation of open space and prime agricultural land, and discourages the conversion of agricultural land to other uses. State Law and LAFCO policy also require the evaluation of how spheres of influence and/or changes of local governmental organization may affect open space and prime agricultural lands. Proposals must be further reviewed for their effect on maintaining the physical and economic integrity of agricultural lands. The exception to these directives is if the conversion to another use would not promote the planned, orderly, and efficient development of an area.

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2

G-4 (cont.)

The EIR's conclusion that the Proposed Project would indeed promote the planned, orderly, and efficient development of the area takes into consideration the past and present planning context within the Proposed Project area. As stated in the EIR, the Project Site is located within the northeastern quadrant of the intersection of I-15 and SR-76, an area which has been planned as a primary location for future growth since 1988 when the Board of Supervisors adopted a General Plan Amendment to the Fallbrook CP which included the I-15 Corridor Subregional Plan, along with Appendix B, the I-15/SR-76 Interchange Master Specific Plan.

This area was planned for future growth due to its proximity to major infrastructure such as at the intersection of two freeways (I-15 and SR 76). Currently, this area is identified in SANDAG's Regional Comprehensive Plan (RCP) Smart Growth Concept Map as a Special Use Center smart growth area. The characteristics of a Special Use Center as described in the RCP include:

- Employment draws from throughout region, with other uses being community serving
- Special use centers may be located within larger area that has several designations
- Dominated by one non-residential land use (Palomar College)
- Retail support services
- Potential residential component.

This area contains anticipated mixed uses including Palomar Community College campus (already approved) as well as commercial, office and residential uses as proposed for adjacent properties (Campus Park and Campus Park West).

Most recently, the RCP's identification of the area for growth has been incorporated into the General Plan Update (GPU). Specifically, both the GPU Draft Land Use Map and Referral Map propose to introduce higher density into the area.

Open Space and Agricultural Lands Preservation

According to Government Code Sections 56001 and 56301, LAFCOs have been directed by the State Legislature to preserve open space and prime agricultural lands and to establish local policies to do so. Thus, San Diego LAFCO Policy L-101 encourages preservation of open space and prime agricultural land, and discourages the conversion of agricultural land to other uses. State Law and LAFCO policy also require the evaluation of how spheres of influence and/or changes of local governmental organization may affect open space and prime agricultural lands. Proposals must be further reviewed for their effect on maintaining the physical and economic integrity of agricultural lands. The exception to these directives is if the conversion to another use would not promote the planned, orderly, and efficient development of an area.

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2

G-4 (cont.)

The Proposed Project is consistent with the overall goals and objectives of the General Plan Update because the residential units were planned with the "smart growth" strategy recommended by SANDAG in mind and because it would be built close to a major transportation corridor (i.e., I-15 and SR-76) and proposed nearby commercial and industrial developments.

As evidence of current planning thought, the Draft General Plan Update Land Use Plan designates the portions of the Project Site planned for development as "Village." The Village category identifies areas where a higher intensity and range of land uses has been envisioned. Typically Village areas function as the center of community planning areas and contain the highest population and densities.

Therefore, the Proposed Project is consistent with LAFCO goals and policies, including Legislative Policy L-101 because the Proposed Project would not otherwise preclude the planned, orderly, efficient development of the area.

Open Space and Agricultural Lands Preservation

According to Government Code Sections 56001 and 56301, LAFCOs have been directed by the State Legislature to preserve open space and prime agricultural lands and to establish local policies to do so. Thus, San Diego LAFCO Policy L-101 encourages preservation of open space and prime agricultural land, and discourages the conversion of agricultural land to other uses. State Law and LAFCO policy also require the evaluation of how spheres of influence and/or changes of local governmental organization may affect open space and prime agricultural lands. Proposals must be further reviewed for their effect on maintaining the physical and economic integrity of agricultural lands. The exception to these directives is if the conversion to another use would not promote the planned, orderly, and efficient development of an area.

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2

G-5 The County acknowledges this comment and agrees that LAFCO's definition of agricultural lands differs from the CEQA definition in that it includes categories such as fallow lands or lands enrolled in a subsidy or set-aside program. Subchapter 4.7.1, Existing Conditions of the Final EIR, has been revised to include LAFCO definitions of agricultural land and prime agricultural land. Additionally, Subchapter 4.7.3, Conflict with Applicable Plan, Policy, or Regulation (Guideline 4) of the Final EIR includes an impact analysis based on these LAFCO definitions. As discussed in the EIR, the Proposed Project would impact 14.5 acres of Prime Agricultural Land based on LAFCO's definition. Although considered an adverse effect, the impact is determined to be less than significant because it would promote the planned, orderly, and efficient development of the area, in compliance with LAFCO Policy L-101.

In mapping agriculture on-site, all land currently used for producing an agricultural commodity, or has been used for such in the recent past, was included in the 54 percent calculation. As shown in the biological technical report (Appendix F.1) the remaining 46 percent of the Project Site comprises mostly natural vegetation.

Open Space and Agricultural Lands Preservation

According to Government Code Sections 56001 and 56301, LAFCOs have been directed by the State Legislature to preserve open space and prime agricultural lands and to establish local policies to do so. Thus, San Diego LAFCO Policy L-101 encourages preservation of open space and prime agricultural land, and discourages the conversion of agricultural land to other uses. State Law and LAFCO policy also require the evaluation of how spheres of influence and/or changes of local governmental organization may affect open space and prime agricultural lands. Proposals must be further reviewed for their effect on maintaining the physical and economic integrity of agricultural lands. The exception to these directives is if the conversion to another use would not promote the planned, orderly, and efficient development of an area.

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2

G-6 In response to this comment, the Final EIR has been revised as follows:

1. Please see response to comment G-7.

2. The County has concluded that the proposed 49.3 acres of agricultural open space as a project design feature would preclude significant agricultural impacts. Please refer to response to comments C-2 for a complete description of the County's position.

3. The discussion regarding the proposed land uses vs. the adjacent agricultural activities has been expanded and clarified in Subchapter 4.7.3, Involve Other Changes in the Existing Environment (Guideline 3) of the Final EIR. In summary, the Final EIR has been revised to clarify that the Proposed Project would not result in significant impacts related to agricultural land use conflicts because the Project Site is physically separated from nearby agricultural operations (SR-76) to the south and the Monserate ridgeline to the east). In addition, design features have been incorporated into the Proposed Project in order to provide additional assurance that the proposed on-site structures would be buffered from both on- and off-site agricultural uses.

4. The County does not concur that the cumulative impacts were inadequately discussed. Subchapter 4.7.4 discusses and quantifies the potential conversion of agriculture resulting from nine projects in the study area and clearly states the portion of the cumulative impacts the Proposed Project is responsible for. See also responses to comments C-5 and G-5.

Open Space and Agricultural Lands Preservation

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Furthermore, the agricultural discussion needs to be expanded to cover the definitions of agricultural land as defined in Government Code Sections 56016 and 56064 as well as impacts to those lands. G-8

2

G-7 In response to this comment, Subchapter 4.7.3, Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Guideline 1) of the Final EIR has been revised to clarify the Proposed Project's direct agricultural impacts. Pursuant to the LESA model, the Project Site does not represent a significant agricultural resource; the inclusion of the 49.3-acre agricultural open space conservation easement is a project design feature.

G-8 The County concurs that the EIR should include discussion of agricultural land as defined in the Government Code sections 56016 and 56064. Subchapter 4.7.1 of the Final EIR has been revised to include definitions of agricultural lands pursuant to Government Code Sections 56016 and 56064 as follows. The revised discussion also quantifies the acreage of the Project Site which falls into either of these two definitions.

San Diego LAFCO Definition of Agricultural Lands – "Agricultural lands" means land currently used for the purpose of producing an agricultural commodity for commercial purposes, land left fallow under a crop rotational program, or land enrolled in an agricultural subsidy or set-aside program. Based on this definition, the Project Site contains approximately 211.4 acres of "agricultural land" or approximately 54 percent of the total Project Site. The remainder of the Project Site is generally disturbed with ornamental landscaping or contains native vegetation.

San Diego LAFCO Definition of Prime Agricultural Land - "Prime agricultural land" means an area of land, whether a single parcel or contiguous parcels, that has not been developed for a use other than an agricultural use and that meets any of the following qualifications:

Open Space and Agricultural Lands Preservation

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1. Land that qualifies, if irrigated, for rating as class I or class II in the USDA Natural Resources Conservation Service land use capability classification, whether or not land is actually irrigated, provided that irrigation is feasible.

2. Land that qualifies for rating 80 through 100 Storie Index Rating.

3. Land that supports livestock used for the production of food and fiber and that has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture in the National Range and Pasture Handbook, Revision 1, December 2003.

4. Land planted with fruit or nut-bearing trees, vines, bushes, or crops that have a nonbearing period of less than five years and that will return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than $400 per acre.

5. Land that has returned from the production of unprocessed agricultural plant products an annual gross value of not less than $400 per acre for three of the previous five calendar years.

According to this definition, 14.5 acres qualify as Prime Agricultural Land based on criteria 1 and 2. Criterion 3 does not apply as the land does not support livestock production of food and fiber. Criteria 4 and 5 involve proprietary information that is not available. However, it may be assumed that the production of avocado and citrus crops would meet this criterion.

- Mitigation measures

Table S-1 on page S-30 acknowledges that the implementation of the project would result in the conversion to non-agricultural use of 6.3 acres of Prime Farmland, approximately 105 acres of Unique Farmland, and about 54 acres of Farmland. The proposed mitigation measure to offset that loss is to retain 49.3 acres of existing groves. The document then concludes that the mitigation reduces the impact to a less than significant level. Retaining 49 acres of agricultural lands to mitigate the conversion to other uses and subsequent loss of about 166 acres of Prime, Prime/Unique, and Farmland is inadequate; this represents preserving less than 25% of the total agricultural acreage that would be lost. Additionally, there is no long-term provision for maintaining these lands in agricultural use in perpetuity. G-9

- Discussion of conflicts between urban and agricultural uses

The document discusses how the agricultural buffer will mitigate land use conflicts between agricultural uses and urban use. However, the text is confusing since proposed buffers are comprised of both active groves as well as off-site agricultural uses. If the groves are located adjacent to the single-family uses, there will be edge effects and conflicts between the "agriculture mitigation site" and the residential uses. This impact was not addressed and is potentially significant. G-10

- Discussion of cumulative impacts

Since over 485 acres are cumulatively impacted, concluding that the retention of 49 acres of groves combined with allowing agriculture to continue on residential lots (2.7 to 13.5 du/acre) is inadequate. Agricultural uses on lands with density ranging from 2.7 to 13.5 du/acre are not feasible or practicable. G-11

On page 3.2-11, the DEIR concludes that the "Proposed Project would promote the planned, orderly, and efficient development of the area, in compliance with LAFCO Policy L-101." That conclusion is based on three factors: (1) SANDAG's Smart Growth concept of development along transportation corridors and in transit nodes; (2) General Plan (GP) 2020 land use designations; and (3) proximity to other development. However, SANDAG's strategy does not take into account agricultural resources in the area, and GP 2020 land use designations have not yet been adopted. In addition, only one of the adjacent developments has been approved while the other two are only proposed at this time. Moreover, one proposed project – Campus Park West – has serious impediments to development since currently it has no access to imported water.

Overall, the agricultural impacts should be considered significant and unmitigated due to the loss of prime and non-prime agricultural lands. In addition, the indirect impacts should be addressed in more detail.

3

G-9 Please see response to comment C-3 and C-4.

The Proposed Project will be conditioned to require the Master Homeowners Association for the Proposed Project, or an approved conservation entity, to be responsible for funding and/or contracting for maintenance services for the on-site agricultural lands. Such maintenance activities are required to be performed in perpetuity.

G-10 Subchapter 4.7.3, Involve Other Changes in the Existing Environment (Guideline 3) of the Final EIR has been revised to clarify the relationship between the on-and off-site land uses. Additionally, this section specifies that with respect to proposed residences adjacent to the agricultural open space on-site, the HOA would be in control of ongoing operations and maintenance activities. Thus, the HOA would have the control necessary to ensure that its ongoing operations and maintenance activities would utilize practices that would not endanger or inconvenience the residents (e.g., organic farming).

G-11 As discussed in responses to comments C-5, the Proposed Project would not result in cumulative agriculture impacts. The 49.3 acres of proposed agricultural preserve is a project design measure that would serve to retain the agricultural character of the site and allow continued agricultural uses under the management of the HOA.

The Final EIR has been revised to reflect the County's concurrence with the second part of this comment regarding the feasibility of agricultural uses in areas with densities of 2.7 units/acre.

- Mitigation measures

Table S-1 on page S-30 acknowledges that the implementation of the project would result in the conversion to non-agricultural use of 6.3 acres of Prime Farmland, approximately 105 acres of Unique Farmland, and about 54 acres of Farmland. The proposed mitigation measure to offset that loss is to retain 49.3 acres of existing groves. The document then concludes that the mitigation reduces the impact to a less than significant level. Retaining 49 acres of agricultural lands to mitigate the conversion to other uses and subsequent loss of about 166 acres of Prime, Prime/Unique, and Farmland is inadequate; this represents preserving less than 25% of the total agricultural acreage that would be lost. Additionally, there is no long-term provision for maintaining these lands in agricultural use in perpetuity.

- Discussion of conflicts between urban and agricultural uses

The document discusses how the agricultural buffer will mitigate land use conflicts between agricultural uses and urban use. However, the text is confusing since proposed buffers are comprised of both active groves as well as off-site agricultural uses. If the groves are located adjacent to the single-family uses, there will be edge effects and conflicts between the "agriculture mitigation site" and the residential uses. This impact was not addressed and is potentially significant.

- Discussion of cumulative impacts

Since over 485 acres are cumulatively impacted, concluding that the retention of 49 acres of groves combined with allowing agriculture to continue on residential lots (2.7 to 13.5 du/acre) is inadequate. Agricultural uses on lands with density ranging from 2.7 to 13.5 du/acre are not feasible or practicable.

On page 3.2-11, the DEIR concludes that the "Proposed Project would promote the planned, orderly, and efficient development of the area, in compliance with LAFCO Policy L-101." That conclusion is based on three factors: (1) SANDAG's Smart Growth concept of development along transportation corridors and in transit nodes; (2) General Plan (GP) 2020 land use designations; and (3) proximity to other development. However, SANDAG's strategy does not take into account agricultural resources in the area, and GP 2020 land use designations have not yet been adopted. In addition, only one of the adjacent developments has been approved while the other two are only proposed at this time. Moreover, one proposed project – Campus Park West – has serious impediments to development since currently it has no access to imported water. G-12 G-13

Overall, the agricultural impacts should be considered significant and unmitigated due to the loss of prime and non-prime agricultural lands. In addition, the indirect impacts should be addressed in more detail. G-14

3

G-12 Please see response to comment G-4. It is acknowledged that the SANDAG smart growth concept does not take into account agricultural resources and that the General Plan Update land use designations have not yet been adopted. However, the EIR's conclusion that the Proposed Project "would promote the planned, orderly, and efficient development of the area, in compliance with LAFCO Policy L-101" also takes into consideration the fact that the MSP and I-15 Corridor Subregional Plan have envisioned the area at this interchange as a node of future development for many years. Further, the General Plan Update is an indicator of current planning efforts to implement SANDAG smart growth concepts in this area.

G-13 It is acknowledged that only one of the adjacent developments (Palomar College Campus) has been approved. However, the other two proposed developments (Campus Park and Campus Park West) are active proposals currently being processed by the County. The Draft EIR for the Campus Park project has completed public review and is in the Final EIR stage. Notwithstanding where in the process these projects' currently exist, they were included in the cumulative analysis throughout the EIR. No changes to the conclusions regarding significance are warranted.

G-14 Please see responses to comments C-2, C-4, and G-11. The County acknowledges that LAFCO may make a different conclusion based on its annexation policies.

Public Services (Utilities)

- Water and Wastewater

Since water and wastewater (sewer) services currently are not available on the property, final project approval is contingent on annexation to obtain those services. While approximately 60% of the project area is in the San Luis Rey Municipal Water District (SLRMWD), the remaining 40% is outside the boundary of any entity that provides those services. Currently, SLRMWD has no access to imported water, has no infrastructure, and service provision is limited to groundwater protection and property owner advocacy.

Access to imported water in San Diego County is restricted to member agencies of the San Diego County Water Authority (CWA), which purchases water from the Metropolitan Water District of Southern California (MET). Consequently, to receive water, property must be located in the boundary of a CWA member. At this time, none of the Meadowood planning territory is in the boundary of a member agency and thus is not eligible to obtain imported water.

G-15

With SLRMWD lacking legal authority to furnish water, sewer, or recycled water, the entire project footprint needs to be in an agency that is entitled to deliver those services. For that reason, adjacent agencies – Rainbow and Valley Center MWDs – that do provide water and sewer service are being evaluated as candidates to furnish those services to the proposed project.

G-16

The document fails to address the associated impacts on each of the three candidate Districts if selected as the service provider. As mentioned in the DEIR, LAFCO will conduct a Municipal Service Review and Sphere of Influence Update that will evaluate which of three MWDs – Rainbow, San Luis Rey or Valley Center – would be the most appropriate service provider for this region. During the process, the districts' spheres potentially would be modified to indicate which agency should provide water, sewer, and recycled water services to the Meadowood Project site.

Page S-2 and other locations in the DEIR state that "Regardless of the MWD that is selected, the applicant would construct all needed water and wastewater facilities to serve the Proposed Project." This constitutes a deferral of environmental review for substantive portions of the infrastructure necessary to support the project. The direct, indirect, cumulative, and growth inducing impacts are not addressed and are deferred.

Thus, to be adequate for this process, the EIR needs to identify for each district the impacts resulting from annexation. Decision-makers cannot make informed decisions regarding the environmental implications associated with the selection of the most appropriate service provider when that discussion is deferred. The decision may have significant consequences to land use decisions (densities and land use types). Without that information being presented at this time, decision-makers lack critical information.

4

G-15 Comment is noted.

G-16 It is acknowledged that a Metropolitan Water District (MWD) with legal authority to deliver water, wastewater (sewer) and recycled water services will be required to provide such services to the Proposed Project. It is also acknowledged that the Rainbow and the Valley Center Municipal Water Districts will be evaluated by LAFCO to furnish such services to the Proposed Project. In addition, the potential activation of the San Luis Rey Municipal Water District's latent powers to provide water, wastewater, and recycled water services to the entire Proposed Project will also be evaluated by LAFCO. The determination by LAFCO as to which MWD is appropriate to provide water, wastewater and recycled water services to the Project Site can be made only after the Proposed Project is approved by the Board of Supervisors.

Public Services (Utilities)

- Water and Wastewater

Since water and wastewater (sewer) services currently are not available on the property, final project approval is contingent on annexation to obtain those services. While approximately 60% of the project area is in the San Luis Rey Municipal Water District (SLRMWD), the remaining 40% is outside the boundary of any entity that provides those services. Currently, SLRMWD has no access to imported water, has no infrastructure, and service provision is limited to groundwater protection and property owner advocacy.

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With SLRMWD lacking legal authority to furnish water, sewer, or recycled water, the entire project footprint needs to be in an agency that is entitled to deliver those services. For that reason, adjacent agencies – Rainbow and Valley Center MWDs – that do provide water and sewer service are being evaluated as candidates to furnish those services to the proposed project.

The document fails to address the associated impacts on each of the three candidate Districts if selected as the service provider. As mentioned in the DEIR, LAFCO will conduct a Municipal Service Review and Sphere of Influence Update that will evaluate which of three MWDs – Rainbow, San Luis Rey or Valley Center – would be the most appropriate service provider for this region. During the process, the districts' spheres potentially would be modified to indicate which agency should provide water, sewer, and recycled water services to the Meadowood Project site. G-17

Page S-2 and other locations in the DEIR state that "Regardless of the MWD that is selected, the applicant would construct all needed water and wastewater facilities to serve the Proposed Project." This constitutes a deferral of environmental review for substantive portions of the infrastructure necessary to support the project. The direct, indirect, cumulative, and growth inducing impacts are not addressed and are deferred.

Thus, to be adequate for this process, the EIR needs to identify for each district the impacts resulting from annexation. Decision-makers cannot make informed decisions regarding the environmental implications associated with the selection of the most appropriate service provider when that discussion is deferred. The decision may have significant consequences to land use decisions (densities and land use types). Without that information being presented at this time, decision-makers lack critical information.

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G-17 This comment accurately states that LAFCO will conduct a Municipal Service Review (MSR) and Sphere of Influence (SOI) Update that will evaluate which of three MWDs – Rainbow, San Luis Rey, or Valley Center – would be the most appropriate service provider for this region. During the process, the MWD's spheres of influence potentially would be modified to indicate which agency should provide water, sewer, and recycled water services to the Project Site. Furthermore, the sphere of influence determination will only be made by LAFCO after the Board of Supervisors grants approval to the Proposed Project.

A series of meetings were held in 2005 and 2006 to discuss these issues. Participants in the outreach and coordination meetings were representatives from LAFCO, the Rainbow Municipal Water District, Valley Center Municipal Water District, San Luis Rey Municipal Water District, San Diego County Water Authority, and Yuima Municipal Water District. Each of the Municipal Water Districts referenced is wholly or partially within the Bonsall and Pala Hydrologic Subarea. A working document entitled "Sphere of Influence Update for Municipal Water Districts Within the Bonsall and Pala Hydrologic Subarea dated October 2006" was prepared by LSA & Associates as a result of the meetings held in 2005 and 2006 (the MSR/SOI working document). The MSR/SOI working document which is discussed and incorporated into the EIR provides an analysis and factual description of the Rainbow, Valley Center and San Luis Rey Municipal Water Districts.

The EIR fully addresses impacts associated with each of the three candidate MWDs that may be selected as the service provider. Within the text of the EIR and within Appendices N-1 and N-3, the physical water, wastewater and recycled water facilities are identified with specificity as to which facilities would need to be constructed for each potential MWD that could provide water, wastewater and recycled water services to the Proposed Project. An analysis of the environmental effects associated with each of the alternative service provider scenarios for the Proposed Project can be found in Subchapter 4.6 of the EIR. The EIR concludes that direct and cumulative impacts associated with water and wastewater facilities and services are less significant.

Public Services (Utilities)

- Water and Wastewater

Since water and wastewater (sewer) services currently are not available on the property, final project approval is contingent on annexation to obtain those services. While approximately 60% of the project area is in the San Luis Rey Municipal Water District (SLRMWD), the remaining 40% is outside the boundary of any entity that provides those services. Currently, SLRMWD has no access to imported water, has no infrastructure, and service provision is limited to groundwater protection and property owner advocacy.

Access to imported water in San Diego County is restricted to member agencies of the San Diego County Water Authority (CWA), which purchases water from the Metropolitan Water District of Southern California (MET). Consequently, to receive water, property must be located in the boundary of a CWA member. At this time, none of the Meadowood planning territory is in the boundary of a member agency and thus is not eligible to obtain imported water.

With SLRMWD lacking legal authority to furnish water, sewer, or recycled water, the entire project footprint needs to be in an agency that is entitled to deliver those services. For that reason, adjacent agencies – Rainbow and Valley Center MWDs – that do provide water and sewer service are being evaluated as candidates to furnish those services to the proposed project.

The document fails to address the associated impacts on each of the three candidate Districts if selected as the service provider. As mentioned in the DEIR, LAFCO will conduct a Municipal Service Review and Sphere of Influence Update that will evaluate which of three MWDs – Rainbow, San Luis Rey or Valley Center – would be the most appropriate service provider for this region. During the process, the districts' spheres potentially would be modified to indicate which agency should provide water, sewer, and recycled water services to the Meadowood Project site.

Page S-2 and other locations in the DEIR state that "Regardless of the MWD that is selected, the applicant would construct all needed water and wastewater facilities to serve the Proposed Project." This constitutes a deferral of environmental review for substantive portions of the infrastructure necessary to support the project. The direct, indirect, cumulative, and growth inducing impacts are not addressed and are deferred. G-18

Thus, to be adequate for this process, the EIR needs to identify for each district the impacts resulting from annexation. Decision-makers cannot make informed decisions regarding the environmental implications associated with the selection of the most appropriate service provider when that discussion is deferred. The decision may have significant consequences to land use decisions (densities and land use types). Without that information being presented at this time, decision-makers lack critical information. G-19

G-18 This comment correctly states that the EIR provides that "Regardless of the Municipal Water District that is selected, the applicant would construct all needed water and wastewater facilities to serve the Proposed Project."

There has not been a deferral of environmental review for a substantial portion of the water, wastewater and recycled water infrastructure necessary to support the Proposed Project. The direct, indirect, cumulative and growth-inducing effects of the water, wastewater, and recycled water facilities for each MWD needed for the Proposed Project are addressed in the aesthetics, transportation, biology, cultural resources, noise, public services, and project alternative sections of the EIR and the discussion of these environmental effects has not been deferred. The EIR concludes that each of the effects referenced in this comment are less than significant or will be mitigated to below a level of significance. See also response to comment G-17 above. Subchapters S.1, Project Description, and 4.6.4, Water Provider and Infrastructure of the Final EIR have been revised to clarify that "the required facilities for each MWD are analyzed within the chapters of the EIR and impacts, if any, have been identified."

G-19 See responses to comments G-18 and G-19 above. It is agreed that the EIR needs to identify for each MWD the impacts resulting from annexation if this EIR is to be used by LAFCO and an MWD for annexation proceedings. Responses to comments G-18 and G-19 demonstrate that the EIR's analysis of the Proposed Project includes, without deferring required analysis, the impacts resulting from annexation of the Proposed Project into an MWD.

On page 1-11, the document recognizes that should the SLRMWD be selected as the water service provider, the District will need to apply for membership on CWA along with annexation of its service area to both CWA and MET. Moreover, for SLRMWD to provide water service, LAFCO also would have to activate the District's latent water powers. In addition, the DEIR should acknowledge on page 4-54 that if SLRMWD is identified as the wastewater provider, latent powers for sewer service would need to be activated as well. G-20

The discussion included in the DEIR is extremely limited and does not present sufficient information for the reader to reach the same conclusions as the preparer. Information contained in the technical appendices pertaining to the off-set program did not provide sufficient assurances that the off-set measures would be achieved prior to the water demand being generated, and revealed that numerous decisions would be deferred to a later date. G-21 G-22

The DEIR concludes that there are no significant impacts because a design measure would be incorporated to specify that the off-set program be developed in connection with annexation. It would seem more appropriate to identify this as a potentially significant impact that can be mitigated through a condition of approval.

There are concerns with the manner in which the design measure is phrased. Due to the lack of assurances of the performance standard and requirement for timing, it is recommended that the measure be modified. The design measure should be revised to state that the off-set program shall establish a net zero project-wide water demand and that the off-set program shall be in place prior to annexation. This language reduces the potential interpretation that a net-zero result is just a goal and that participation in the off-set program could be delayed until after the demand was being generated.

The cumulative discussion is inadequate and makes conclusions without supporting data. With the substantial issues facing the regional water supply (court ruling on endangered fish, three years of drought, reduced Colorado River deliveries, etc.), and the presumption that the proposed General Plan Amendment (GPA) will result in increased water demand over that anticipated under the existing GP, the conclusion that impacts to water are not significant is unsubstantiated.

The wastewater section is inadequate and defers an important discussion of the potential impacts to a later date when decisions are made relative to which agency is selected to be the sewer service provider. Also, potential cumulative and growth-inducing impacts are not discussed. Since a wastewater treatment plant is proposed for construction, it would seem appropriate to ensure that the facility be designed to accommodate additional future demand if proposed development on adjacent territory is approved. Pages 1-6 and 1-7 recognize and discuss the possibility that the wastewater treatment plant could be sized and sited to accommodate the Meadowood project and then expanded to serve nearby projects.

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G-20 The County concurs with this comment. Subchapters1.2.1, LAFCO, and 4.6.4, Water Provider and Infrastructure of the Final EIR have been revised to reflect that selection of SLRMWD as service provider would require LAFCO to activate the District's latent powers for water and sewer service.

G-21 Please refer to response to comments G-15 through G-21.

G-22 The County acknowledges this comment. The offset requirement will be a condition of project approval. Specifically, Meadowood would fund the development of an off-site water recycling project or fund alternative program(s) to offset the remainder of Meadowood's water demands. As part of a water supply offset program, Pardee Homes could fund advanced treatment improvements to produce recycled water and various recycled water pipeline projects to offset the use of imported water. Examples of recycled water pipeline projects would be:

(a) Retrofitting irrigation systems that currently use imported water with purple pipe for use with recycled water (e.g., golf courses, Caltrans, and other landscaped areas).

(b) Entering into interagency agreements with other SDCWA member agencies whereby projects within the boundary of other Districts can be retrofitted with purple pipe and a credit given to Meadowood's water supplying district for the imported water savings within the other District.

(c) Recycled water offsets could also be achieved by providing recycled water to large outdoor swimming pools instead of reliance upon imported water for such purpose.

By participating in any such program(s) the offset would be equal to the volume of recycled water used instead of the imported water that otherwise would have been used. In addition to recycled water, Pardee Homes could fund various water conservation projects supported by the supplying agency. Possible conservation projects to offset potable water may include:

LETTER

On page 1-11, the document recognizes that should the SLRMWD be selected as the water service provider, the District will need to apply for membership on CWA along with annexation of its service area to both CWA and MET. Moreover, for SLRMWD to provide water service, LAFCO also would have to activate the District's latent water powers. In addition, the DEIR should acknowledge on page 4-54 that if SLRMWD is identified as the wastewater provider, latent powers for sewer service would need to be activated as well.

The discussion included in the DEIR is extremely limited and does not present sufficient information for the reader to reach the same conclusions as the preparer. Information contained in the technical appendices pertaining to the off-set program did not provide sufficient assurances that the off-set measures would be achieved prior to the water demand being generated, and revealed that numerous decisions would be deferred to a later date. G-22

The DEIR concludes that there are no significant impacts because a design measure would be incorporated to specify that the off-set program be developed in connection with annexation. It would seem more appropriate to identify this as a potentially significant impact that can be mitigated through a condition of approval. G-23

There are concerns with the manner in which the design measure is phrased. Due to the lack of assurances of the performance standard and requirement for timing, it is recommended that the measure be modified. The design measure should be revised to state that the off-set program shall establish a net zero project-wide water demand and that the off-set program shall be in place prior to annexation. This language reduces the potential interpretation that a net-zero result is just a goal and that participation in the off-set program could be delayed until after the demand was being generated. G-24

The cumulative discussion is inadequate and makes conclusions without supporting data. With the substantial issues facing the regional water supply (court ruling on endangered fish, three years of drought, reduced Colorado River deliveries, etc.), and the presumption that the proposed General Plan Amendment (GPA) will result in increased water demand over that anticipated under the existing GP, the conclusion that impacts to water are not significant is unsubstantiated. G-25

The wastewater section is inadequate and defers an important discussion of the potential impacts to a later date when decisions are made relative to which agency is selected to be the sewer service provider. Also, potential cumulative and growth-inducing impacts are not discussed. Since a wastewater treatment plant is proposed for construction, it would seem appropriate to ensure that the facility be designed to accommodate additional future demand if proposed development on adjacent territory is approved. Pages 1-6 and 1-7 recognize and discuss the possibility that the wastewater treatment plant could be sized and sited to accommodate the Meadowood project and then expanded to serve nearby projects. G-26

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RESPONSE

(i) Ultra-low flow toilet retrofits
(ii) High-efficiency (usually horizontal axis) clothes washers
(iii) Conversion of school fields to artificial turf
(iv) Weather-based irrigation controllers
(v) Replacing inefficient water intensive industrial/ commercial air cooling systems.

The specific conditions of annexation will be set by the MWD and the SDCWA when specific requirements will be identified.

G-23 The County acknowledges this comment. Please see response to comment G-22.

G-24 The County acknowledges this comment.

G-25 Refer to response to comment Q-2 which addresses drought issues facing regional water supply, reasons why the Proposed Project will result in no net increase in water demand, and substantiation for the Proposed Projects' conclusions that impacts are less than significant.

G-26 In response to this and other comments received during public review, the County facilitated the preparation of the County of San Diego Fallbrook Projects-Feasibility Study dated October 19, 2010 ("Feasibility Study") The Feasibility Study was prepared to address and meet the anticipated needs of the subregion and to provide a coordinated, planned approach to wastewater service to the region. The Feasibility Study primarily reviewed the service demand for the Proposed Project in addition to that of the adjacent Campus Park West project and other areas in the direct vicinity (see Feasibility Study, Figure 1).

On page 1-11, the document recognizes that should the SLRMWD be selected as the water service provider, the District will need to apply for membership on CWA along with annexation of its service area to both CWA and MET. Moreover, for SLRMWD to provide water service, LAFCO also would have to activate the District's latent water powers. In addition, the DEIR should acknowledge on page 4-54 that if SLRMWD is identified as the wastewater provider, latent powers for sewer service would need to be activated as well.

The discussion included in the DEIR is extremely limited and does not present sufficient information for the reader to reach the same conclusions as the preparer. Information contained in the technical appendices pertaining to the off-set program did not provide sufficient assurances that the off-set measures would be achieved prior to the water demand being generated, and revealed that numerous decisions would be deferred to a later date.

The DEIR concludes that there are no significant impacts because a design measure would be incorporated to specify that the off-set program be developed in connection with annexation. It would seem more appropriate to identify this as a potentially significant impact that can be mitigated through a condition of approval.

There are concerns with the manner in which the design measure is phrased. Due to the lack of assurances of the performance standard and requirement for timing, it is recommended that the measure be modified. The design measure should be revised to state that the off-set program shall establish a net zero project-wide water demand and that the off-set program shall be in place prior to annexation. This language reduces the potential interpretation that a net-zero result is just a goal and that participation in the off-set program could be delayed until after the demand was being generated.

The cumulative discussion is inadequate and makes conclusions without supporting data. With the substantial issues facing the regional water supply (court ruling on endangered fish, three years of drought, reduced Colorado River deliveries, etc.), and the presumption that the proposed General Plan Amendment (GPA) will result in increased water demand over that anticipated under the existing GP, the conclusion that impacts to water are not significant is unsubstantiated.

The wastewater section is inadequate and defers an important discussion of the potential impacts to a later date when decisions are made relative to which agency is selected to be the sewer service provider. Also, potential cumulative and growth-inducing impacts are not discussed. Since a wastewater treatment plant is proposed for construction, it would seem appropriate to ensure that the facility be designed to accommodate additional future demand if proposed development on adjacent territory is approved. Pages 1-6 and 1-7 recognize and discuss the possibility that the wastewater treatment plant could be sized and sited to accommodate the Meadowood project and then expanded to serve nearby projects.

G-26

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G-26 (cont.)

The Feasibility Study concluded that the Campus Park West project site would be the most suitable location for a regional WWTP. While the Feasibility Study concluded the Campus Park West site to be the most appropriate for a regional WWTP, if one project is not approved or not built, the regional WWTP would not be necessary or feasible. Therefore, an allowance would be necessary for the installation and construction of an individual project serving WWTP. The applicant has agreed to make the necessary arrangements to ensure that wastewater is collected and treated at a regional facility in order to provide a coordinated, planned approach to wastewater service for the region.

Subchapter 4.6.5 of the Final EIR has been updated to include information from the Feasibility Study. Direct impacts are less than significant because the proposed on-site WWTP meets current estimated wastewater generation and conforms to relevant policies, impacts associated with wastewater generation and treatment would be less than significant. All on- and off-site impacts associated with the extension of water facilities related to individual resource areas are detailed throughout Chapters 2 and 3, as follows: Aesthetics (Chapter 2.1), Air Quality (Chapter 2.2), Transportation/Traffic (Chapter 2.3), Biology (Chapter 3.1), Cultural Resources (Chapter 3.3), Noise (Chapter 3.4), and Hazards (Chapter 3.5).

Regarding wastewater, in order to assure that privately proposed wastewater treatment plants would meet the anticipated needs of the project and the subregion, the Feasibility Study was completed. The Feasibility Study is included in the EIR as Appendix N-4. The Feasibility Study primarily reviewed the service demand for the Proposed Project in addition to that of the adjacent Campus Park West project and other areas in the direct vicinity (see Feasibility Study, Figure 1). While the Feasibility Study concluded this area would be best served by a regional WWTP, it acknowledged that if one project is not approved or not built, a regional WWTP may not be required. Therefore, it is necessary that the Proposed Project would include an individual project-serving WWTP.

On page 1-11, the document recognizes that should the SLRMWD be selected as the water service provider, the District will need to apply for membership on CWA along with annexation of its service area to both CWA and MET. Moreover, for SLRMWD to provide water service, LAFCO also would have to activate the District's latent water powers. In addition, the DEIR should acknowledge on page 4-54 that if SLRMWD is identified as the wastewater provider, latent powers for sewer service would need to be activated as well.

The discussion included in the DEIR is extremely limited and does not present sufficient information for the reader to reach the same conclusions as the preparer. Information contained in the technical appendices pertaining to the off-set program did not provide sufficient assurances that the off-set measures would be achieved prior to the water demand being generated, and revealed that numerous decisions would be deferred to a later date.

The DEIR concludes that there are no significant impacts because a design measure would be incorporated to specify that the off-set program be developed in connection with annexation. It would seem more appropriate to identify this as a potentially significant impact that can be mitigated through a condition of approval.

There are concerns with the manner in which the design measure is phrased. Due to the lack of assurances of the performance standard and requirement for timing, it is recommended that the measure be modified. The design measure should be revised to state that the off-set program shall establish a net zero project-wide water demand and that the off-set program shall be in place prior to annexation. This language reduces the potential interpretation that a net-zero result is just a goal and that participation in the off-set program could be delayed until after the demand was being generated.

The cumulative discussion is inadequate and makes conclusions without supporting data. With the substantial issues facing the regional water supply (court ruling on endangered fish, three years of drought, reduced Colorado River deliveries, etc.), and the presumption that the proposed General Plan Amendment (GPA) will result in increased water demand over that anticipated under the existing GP, the conclusion that impacts to water are not significant is unsubstantiated.

The wastewater section is inadequate and defers an important discussion of the potential impacts to a later date when decisions are made relative to which agency is selected to be the sewer service provider. Also, potential cumulative and growth-inducing impacts are not discussed. Since a wastewater treatment plant is proposed for construction, it would seem appropriate to ensure that the facility be designed to accommodate additional future demand if proposed development on adjacent territory is approved. Pages 1-6 and 1-7 recognize and discuss the possibility that the wastewater treatment plant could be sized and sited to accommodate the Meadowood project and then expanded to serve nearby projects.

G-26

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G-26 (cont.)

The Feasibility Study concluded that the Campus Park West project site would be the most suitable location for a regional WWTP. The applicant has agreed to make the necessary arrangements to ensure that wastewater is collected and treated at a regional facility in order to provide a coordinated, planned approach to wastewater service for the region. If and when such connection to a regional facility is feasible, the individual WWTP, that is currently included as a part of the Proposed Project, would be decommissioned and the Proposed Project would connect to the regional WWTP.

An impact is cumulatively considerable if the incremental effect of the project is considerable when viewed in connection with the effects of past projects, other current projects, and probable future projects. (14 Cal Code Regs §15065(a)(3)). While the absence of wastewater service in the project area may render a significant cumulative impact to wastewater systems and infrastructure, the project's contribution to that significant effect is not cumulatively considerable. The Proposed Project would construct and maintain a WWTP to process the wastewater generated only from the project. The Proposed Project would not generate wastewater that would require treatment other than by the Proposed Project's WWTP. Therefore, the Proposed Project would not make a cumulatively considerable contribution to impacts associated with wastewater treatment and disposal.

Subchapter 1.8.4, Growth Inducement Due to Extension of Public Facilities, was also updated pursuant to the conclusions from the Feasibility Study. As stated previously, the Feasibility Study analyzed the appropriate areas and facilities required for a regional solution to water, recycled water and wastewater infrastructure (Feasibility Study, Figures 6, 7 and 8) but determined that each project could proceed independently with facilities to serve the individual projects. The construction and implementation of a regional infrastructure would not be necessary or feasible; therefore, growth induction impacts would

On page 1-11, the document recognizes that should the SLRMWD be selected as the water service provider, the District will need to apply for membership on CWA along with annexation of its service area to both CWA and MET. Moreover, for SLRMWD to provide water service, LAFCO also would have to activate the District's latent water powers. In addition, the DEIR should acknowledge on page 4-54 that if SLRMWD is identified as the wastewater provider, latent powers for sewer service would need to be activated as well.

The discussion included in the DEIR is extremely limited and does not present sufficient information for the reader to reach the same conclusions as the preparer. Information contained in the technical appendices pertaining to the off-set program did not provide sufficient assurances that the off-set measures would be achieved prior to the water demand being generated, and revealed that numerous decisions would be deferred to a later date.

The DEIR concludes that there are no significant impacts because a design measure would be incorporated to specify that the off-set program be developed in connection with annexation. It would seem more appropriate to identify this as a potentially significant impact that can be mitigated through a condition of approval.

There are concerns with the manner in which the design measure is phrased. Due to the lack of assurances of the performance standard and requirement for timing, it is recommended that the measure be modified. The design measure should be revised to state that the off-set program shall establish a net zero project-wide water demand and that the off-set program shall be in place prior to annexation. This language reduces the potential interpretation that a net-zero result is just a goal and that participation in the off-set program could be delayed until after the demand was being generated.

The cumulative discussion is inadequate and makes conclusions without supporting data. With the substantial issues facing the regional water supply (court ruling on endangered fish, three years of drought, reduced Colorado River deliveries, etc.), and the presumption that the proposed General Plan Amendment (GPA) will result in increased water demand over that anticipated under the existing GP, the conclusion that impacts to water are not significant is unsubstantiated.

The wastewater section is inadequate and defers an important discussion of the potential impacts to a later date when decisions are made relative to which agency is selected to be the sewer service provider. Also, potential cumulative and growth-inducing impacts are not discussed. Since a wastewater treatment plant is proposed for construction, it would seem appropriate to ensure that the facility be designed to accommodate additional future demand if proposed development on adjacent territory is approved. Pages 1-6 and 1-7 recognize and discuss the possibility that the wastewater treatment plant could be sized and sited to accommodate the Meadowood project and then expanded to serve nearby projects.

G-26

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G-26 (cont.)

be speculative pursuant to CEQA section 15145. The location and timing for siting a region wide-serving WWTP will be determined by the MWD serving the Proposed Project. The MWD that will provide service to the Proposed Project cannot be identified until LAFCO takes action on a SOI determination. Because LAFCO cannot take action on a SOI determined until the Proposed Project's Final EIR is certified, the determination of siting and sizing of a region wide serving WWTP is speculative at this time.

On page 1-11, the document recognizes that should the SLRMWD be selected as the water service provider, the District will need to apply for membership on CWA along with annexation of its service area to both CWA and MET. Moreover, for SLRMWD to provide water service, LAFCO also would have to activate the District's latent water powers. In addition, the DEIR should acknowledge on page 4-54 that if SLRMWD is identified as the wastewater provider, latent powers for sewer service would need to be activated as well.

The discussion included in the DEIR is extremely limited and does not present sufficient information for the reader to reach the same conclusions as the preparer. Information contained in the technical appendices pertaining to the off-set program did not provide sufficient assurances that the off-set measures would be achieved prior to the water demand being generated, and revealed that numerous decisions would be deferred to a later date.

The DEIR concludes that there are no significant impacts because a design measure would be incorporated to specify that the off-set program be developed in connection with annexation. It would seem more appropriate to identify this as a potentially significant impact that can be mitigated through a condition of approval.

There are concerns with the manner in which the design measure is phrased. Due to the lack of assurances of the performance standard and requirement for timing, it is recommended that the measure be modified. The design measure should be revised to state that the off-set program shall establish a net zero project-wide water demand and that the off-set program shall be in place prior to annexation. This language reduces the potential interpretation that a net-zero result is just a goal and that participation in the off-set program could be delayed until after the demand was being generated.

The cumulative discussion is inadequate and makes conclusions without supporting data. With the substantial issues facing the regional water supply (court ruling on endangered fish, three years of drought, reduced Colorado River deliveries, etc.), and the presumption that the proposed General Plan Amendment (GPA) will result in increased water demand over that anticipated under the existing GP, the conclusion that impacts to water are not significant is unsubstantiated.

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G-27 Please see response to comment G-26.

The on-site wastewater treatment facility proposed upon the Project Site does not preclude the most efficient plans for providing sewer service for the entire drainage basin. If more treatment capacity is required for the drainage basin than can be provided by the Proposed Project's on-site wastewater treatment facility, the preferred service provider, VCMWD, has indicated it would treat the Proposed Project's on-site wastewater treatment facility as an interim facility. The District has indicated it will develop a larger permanent wastewater treatment facility if a larger facility became necessary.

This is consistent with the conclusions and recommendations of the Feasibility Study. The Feasibility Study concluded that the Campus Park West project site would be the most suitable location for a regional WWTP. While the Feasibility Study concluded this site to be the most appropriate for a regional WWTP, if one project is not approved or not built, the regional WWTP would not be necessary or feasible. Therefore, an allowance would be necessary for the installation and construction of an individual project serving WWTP. The applicant has agreed to make the necessary arrangements to ensure that wastewater is collected and treated at a regional facility in order to provide a coordinated, planned approach to wastewater service for the region.

Therefore, the Final EIR has been revised to reflect the conclusions of the Feasibility Study. Any text which refers to the on-site WWTP as being capable of expansion has been deleted.

If a facility to provide service on a region-wide basis is built, additional environmental review would be required. However, no follow-up or discussion of the potential for growth-inducing or cumulative impacts ensues. Nevertheless, a qualitative discussion is appropriate since quantification of these impacts may be speculative. The proposed wastewater treatment facility is located adjacent to multi-family dwellings, which may be a conflict of land use designations. This section does not address those impacts. G-28 G-29

The Utilities section (water and wastewater) needs to be revised. Overall, it is confusing, lacks detail and, based upon the level of detail, may warrant being placed in the impacts considered significant. G-30

- Fire Protection and Emergency Medical Services

While the project area is outside the North County Fire Protection District (FPD), it is in the District's sphere of influence. The DEIR acknowledges that annexation of the project site for fire and emergency medical services also will be necessary. A Fire Protection Plan has been prepared and should be implemented to comply with the requirements of the North County FPD. G-31

Growth Inducement

The conclusions and discussion in the growth inducing section are unsubstantiated. Relying upon a draft, not adopted, General Plan Update and a growth strategy by SANDAG to justify development is not well founded. CEQA requires that the discussion of impacts should be conducted on the ground. Therefore, utilizing a draft General Plan is not appropriate. The growth strategy proposed by SANDAG in the Regional Comprehensive Plan (RCP) indicated that growth should be directed toward areas served by transportation. However, the RCP also acknowledged that proposed projects should not create significant adverse impacts. Stating that there are no growth-inducing impacts because the area has been planned for growth in the past is not substantiated, particularly when a GPA has been proposed in conjunction with the development plan. Issues related to the wastewater treatment plant and the potential for expansion should also be identified as potentially inducing growth.

Other Topics

Land Use

Land use should be reevaluated since the project proposes a GPA, which is by definition a conflict with the existing GP. Thus, impacts should not be discussed relative to a GP update that has not yet been adopted; rather the impacts of plan to plan and plan to ground should be fully evaluated.

G-28 Please refer to responses to comments G-26 and G-27.

G-29 The EIR does address potential land use effects of a wastewater treatment plant located adjacent to multi-family dwellings. Please refer to response to comment K-31 which addresses the proximity of the WWTP to residential land uses and a discussion of the potential impacts and proposed mitigation associated with its proposed location.

However, in response to this comment as well as response to a comment received from the preferred service provider, VCMWD (I-9), the Proposed Project and the Final EIR, has been revised to reflect a 250-foot buffer from the WWTP to proposed residences. Please see Subchapter 1.2.1, Water/Wastewater Services of the Final EIR.

G-30 In response to comments, the Utilities and Service Systems Chapter was revised to reflect updates to regional water supply issues as well as the Feasibility Study, as discussed above. The County disagrees that any revisions would result in significant impacts. Please see responses to comments G-26 and G-27 regarding the analysis of wastewater service. Subchapter 4.6 of the Final EIR addresses impacts to water service. As detailed throughout this subchapter, the Proposed Project includes specific design measures to assure significant impacts associated with potable water demands are less than significant. These design measures are set forth in Table 1-5 and Subchapter 8 (MMRP) of the EIR and include the use of either reclaimed water or groundwater to irrigate common areas and retained agricultural groves, application of the new stormwater regulations requiring efficient irrigation, installation of low water usage appliances, and the requirement to develop an off-set program to achieve a net zero project-wide water demand.

G-31 The comment accurately summarizes the Proposed Project's Fire Protection status.

If a facility to provide service on a region-wide basis is built, additional environmental review would be required. However, no follow-up or discussion of the potential for growth-inducing or cumulative impacts ensues. Nevertheless, a qualitative discussion is appropriate since quantification of these impacts may be speculative. The proposed wastewater treatment facility is located adjacent to multi-family dwellings, which may be a conflict of land use designations. This section does not address those impacts.

The Utilities section (water and wastewater) needs to be revised. Overall, it is confusing, lacks detail and, based upon the level of detail, may warrant being placed in the impacts considered significant.

- Fire Protection and Emergency Medical Services

While the project area is outside the North County Fire Protection District (FPD), it is in the District's sphere of influence. The DEIR acknowledges that annexation of the project site for fire and emergency medical services also will be necessary. A Fire Protection Plan has been prepared and should be implemented to comply with the requirements of the North County FPD.

Growth Inducement

The conclusions and discussion in the growth inducing section are unsubstantiated. Relying upon a draft, not adopted, General Plan Update and a growth strategy by SANDAG to justify development is not well founded. CEQA requires that the discussion of impacts should be conducted on the ground. Therefore, utilizing a draft General Plan is not appropriate. The growth strategy proposed by SANDAG in the Regional Comprehensive Plan (RCP) indicated that growth should be directed toward areas served by transportation. However, the RCP also acknowledged that proposed projects should not create significant adverse impacts. Stating that there are no growth-inducing impacts because the area has been planned for growth in the past is not substantiated, particularly when a GPA has been proposed in conjunction with the development plan. Issues related to the wastewater treatment plant and the potential for expansion should also be identified as potentially inducing growth.

G-32

Other Topics

Land Use

Land use should be reevaluated since the project proposes a GPA, which is by definition a conflict with the existing GP. Thus, impacts should not be discussed relative to a GP update that has not yet been adopted; rather the impacts of plan to plan and plan to ground should be fully evaluated.

G-32 The County disagrees that the growth inducing discussion is entirely based upon the General Plan Update and SANDAG. Please refer to responses to comments G-4 and K-44 which addresses the existing planning documents identifying this northeast quadrant of the I-15/SR-76 interchange for growth.

In Subchapter 1.8.1, Growth Inducement Due to General Plan Amendment (increases in density), the Final EIR addresses growth inducement associated with the increase in density resulting from the proposed General Plan Amendment. As evidence of the planned growth in the region, the EIR cites the I-15 Corridor Subregional Plan, Master Specific Plan, and SANDAG's Smart Growth Concept Map, Regional Comprehensive Plan and Regional Transportation Plan. The County acknowledges that the General Plan Update is a draft document and not an adopted plan. However, the EIR includes information relating to the County General Plan Update to reflect the status of current planning efforts within this region. Consistent with the planned growth in this region, it is recognized that provisions must be made for necessary utilities and services and these have been undertaken by the Proposed Project and others in the region.

Regarding growth inducement due to extension of public facilities, please see response to comment G-26.

If a facility to provide service on a region-wide basis is built, additional environmental review would be required. However, no follow-up or discussion of the potential for growth-inducing or cumulative impacts ensues. Nevertheless, a qualitative discussion is appropriate since quantification of these impacts may be speculative. The proposed wastewater treatment facility is located adjacent to multi-family dwellings, which may be a conflict of land use designations. This section does not address those impacts.

The Utilities section (water and wastewater) needs to be revised. Overall, it is confusing, lacks detail and, based upon the level of detail, may warrant being placed in the impacts considered significant.

- Fire Protection and Emergency Medical Services

While the project area is outside the North County Fire Protection District (FPD), it is in the District's sphere of influence. The DEIR acknowledges that annexation of the project site for fire and emergency medical services also will be necessary. A Fire Protection Plan has been prepared and should be implemented to comply with the requirements of the North County FPD.

Growth Inducement

The conclusions and discussion in the growth inducing section are unsubstantiated. Relying upon a draft, not adopted, General Plan Update and a growth strategy by SANDAG to justify development is not well founded. CEQA requires that the discussion of impacts should be conducted on the ground. Therefore, utilizing a draft General Plan is not appropriate. The growth strategy proposed by SANDAG in the Regional Comprehensive Plan (RCP) indicated that growth should be directed toward areas served by transportation. However, the RCP also acknowledged that proposed projects should not create significant adverse impacts. Stating that there are no growth-inducing impacts because the area has been planned for growth in the past is not substantiated, particularly when a GPA has been proposed in conjunction with the development plan. Issues related to the wastewater treatment plant and the potential for expansion should also be identified as potentially inducing growth.

Other Topics

Land Use

Land use should be reevaluated since the project proposes a GPA, which is by definition a conflict with the existing GP. Thus, impacts should not be discussed relative to a GP update that has not yet been adopted; rather the impacts of plan to plan and plan to ground should be fully evaluated. G-33

G-33 The County disagrees that land use impacts are discussed relative to the General Plan Update rather than the existing General Plan. Land use impacts were evaluated based on thresholds from CEQA Guidelines, Appendix G which include consistency with applicable and use plans and potential to divide an established community. Subchapter 1.6, Inconsistencies of Project with Applicable Regional and General Plans, outlines the inconsistencies of the Proposed Project with the adopted General Plan and these are further discussed in Subchapter 4.1.4, Proposed Project Inconsistencies with Land Use Plans, Policies, and Regulations (Guideline 1). Therefore, inconsistencies relative to the General Plan are based on the adopted General Plan, not the Draft General Plan Update.

Impacts resulting from the proposed GPA are addressed on a "plan to ground" basis in the EIR in each of the individual topic areas. As identified, the Proposed Project would result in: (1) significant unmitigated impacts associated with aesthetics, air quality, and transportation/traffic; (2) significant mitigated impacts associated with biological resources, agricultural resources, geology and soils, cultural resources, noise, and hazards/hazardous materials; and (3) less than significant effects associated with land use, hydrology and water quality, public services, population and housing, mineral resources, and utilities.

Air Quality

Based upon a cursory review of this section, the County should conduct a full evaluation to determine whether the associated architectural emissions are actually reduced to below a level of significance. There were no data included in the DEIR to confirm those conclusions. Considering the size and number of homes likely to be constructed, architectural emissions often will exceed the thresholds. G-34

Should you have any questions, or if LAFCO may be of any further assistance, please contact me at (619) 531-5400. G-35

Ingrid E. Hansen

INGRID E. HANSEN
Chief, Governmental Services

IEH/ieh

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G-34 The County disagrees that a full evaluation of architectural emissions was not conducted for the Proposed Project. The EIR identifies AQ-2, air quality impacts resulting from the architectural coating phase of construction as a significant impact related to the volatile organic compounds (VOC) content of the coatings. Mitigation identified in the EIR requires that the applicant use interior coatings with a VOC content less than or equal to 50 grams per liter; residential exterior coatings with a content less than or equal to 100 grams per liter; and non-residential exterior coatings and interior coatings with a content less than or equal to 250 grams per liter. These are requirements of the South Coast Air Quality Management District, but not San Diego APCD, hence they are identified as Mitigation Measure AQ-2. The low VOC content coatings were then inputted in the model and showed that emissions from the low VOC content coatings would be reduced to a level of less than significant.

G-35 Closing statement is noted; no response is necessary.

Letter H

SMITH TRAGER LLP

October 12, 2009

Mr. Dennis Campbell
Project Manager
Department of Planning and Land Use
County of San Diego
5201 Ruffin Road, Suite B
San Diego, CA 92123

Re: Draft Environmental Impact Report, Meadowood Project
State Clearinghouse No. 2004051028

Dear Mr. Campbell:

The San Luis Rey Municipal Water District ("SLRMWD") appreciates the opportunity to provide comments on the Draft Environmental Impact Report ("DEIR") prepared by the County of San Diego Department of Planning and Land Use ("County") for the Meadowood Project ("Project"), pursuant to the California Environmental Quality Act, Public Resources Code section, 21000 et seq. ("CEQA") and its implementing guidelines, California Code of Regulations, title 14, section 15000 et seq. ("Guidelines"). The Meadowood Project is owned by Pardee Homes, a California Corporation ("Property Owner"). H-1

SLRMWD has been identified as a CEQA responsible agency in the DEIR. As such, it has reviewed the EIR, and finds it inadequate under CEQA. SLRMWD requests that the County refrain from certifying the DEIR, until critical inadequacies are addressed in the County's analysis, and until appropriate mitigation measures and a monitoring report is developed. H-2

Summary

This DEIR avoids describing the actual project under consideration by the County. It does so by shifting its project description, and by deferring to some later time, the critical analytical work and decision-making which must first be undertaken by other public agencies such as the San Diego County Local Agency Formation Commission ("LAFCO"), by the San Diego County Water Authority and by the Metropolitan Water District of Southern California. H-3

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H-1 This comment is introductory and requires no response.

H-2 The County of San Diego acknowledges and appreciates this comment; however, the comment fails to provide any legal basis for the conclusion that the EIR is inadequate. Therefore, no further response is required.

H-3 The County disagrees with this comment. The EIR accurately and completely describes the Proposed Project and the reasonably foreseeable decision-making activities, in the proper sequence, which will need to be undertaken by other public agencies. There has been no deferral of any analytical work necessary for the reasonably foreseeable activities related to the Proposed Project. The Proposed Project must be approved before LAFCO will undertake a Municipal Services Review (MSR) and a sphere of influence (SOI) update for the potential water and wastewater service provider upon and adjacent to the Project Site. Action(s) subsequent to LAFCO concluding its MSR and SOI Determination will include annexation proceedings also conducted by LAFCO for annexation into a Municipal Water District (MWD), the San Diego County Water Authority (SDCWA) and the Metropolitan Water District (MET). Annexation into the North County Fire Protection District will also be conducted at that time. An analysis of the environmental effects associated with provision of water and sewer service under each of the alternative service providers is discussed in the Final EIR, Subchapter 4.6.4. The EIR concludes that direct and cumulative impacts associated with water and wastewater facilities and services would be less than significant. LAFCO, acting as a responsible agency under CEQA, will rely upon those and other appropriate Subchapters of the EIR when making its SOI determination.

SMITH TRAGER LLP

October 12, 2009

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SLRMWD has been identified as a CEQA responsible agency in the DEIR. As such, it has reviewed the EIR, and finds it inadequate under CEQA. SLRMWD requests that the County refrain from certifying the DEIR, until critical inadequacies are addressed in the County's analysis, and until appropriate mitigation measures and a monitoring report is developed.

Summary

This DEIR avoids describing the actual project under consideration by the County. It does so by shifting its project description, and by deferring to some later time, the critical analytical work and decision-making which must first be undertaken by other public agencies such as the San Diego County Local Agency Formation Commission ("LAFCO"), by the San Diego County Water Authority and by the Metropolitan Water District of Southern California.

H-3

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H-3 (cont.)

Furthermore, a series of meetings were held in 2005 and 2006 to discuss a MSR/SOI Update for the Proposed Project area. Participants in the outreach and coordination meetings included representatives from LAFCO, Rainbow Municipal Water District (RMWD), Valley Center Municipal Water District (VCMWD), San Luis Rey Municipal Water District (SLRMWD), SDCWA, and Yucaipa Valley Water District (YVWD). Each of the MWDs referenced is wholly or partially within the Bonsall and Pala Hydrologic Subarea. A working document entitled "Sphere of Influence Update for Municipal Water District's Within the Bonsall and Pala Hydrologic Subarea dated October 2006" was prepared by LSA & Associates as a result of the meetings held in 2005 and 2006 (MSR/SOI working document). The MSR/SOI working document which is discussed and incorporated into the EIR provides an analysis and factual description of the RMWD, VCMWD, and SLRMWD. An update to the MSR/SOI working document will also be used by LAFCO when conducting its MSR for the area.

Pursuant to LAFCO, the MSR/SOI process cannot be officially initiated until the Proposed Project is approved by the Board of Supervisors. As a consequence, only after LAFCO completes the MSR, and makes its SOI determination, will the MWD be identified. After the SOI determination is made by LAFCO, discussions will proceed with the MWD to confirm the siting, sizing and design of facilities needed by the MWD. Should the MWD be satisfied with the design of facilities analyzed in the Proposed Project EIR, adequate environmental review would have been performed to enable that work to proceed.

The DEIR's lack of a complete project description, the deferral of LAFCO's analysis, and the lack of specificity as to the source of the water to be served and the plumbing required, undermines this DEIR's purpose, and places SLRMWD in the position of not knowing whether it is this DEIR which supports an agency action by LAFCO, and if so, what manner of agency reorganization is being contemplated, if at all. LAFCO is tasked (according to the DEIR) with the responsibility of determining which pubic agency will be designated the public water purveyor to this project. Designation of any one of the three possible choices would involve impacts to the available water supply, both imported and local, and would also require agency action by not only LAFCO, but by other water agencies which are likely to impose requirements on the Property Owner which themselves will have adverse environmental consequences on pumpers in SLRMWD, and on SLRMWD's adopted Groundwater Management Plan. H-4 H-5

Separate and independent from that failure, the DEIR's analysis of the project's impacts to both local and imported water availability falls far short of the analysis required in a competent Water Supply Assessment under the codified provisions of Senate Bill 221 and Senate Bill 610 of the 2001 Legislative Session. More critically to this agency, the DEIR falls short of analyzing the environmental impacts of LAFCO's selection of a water purveyor other than the SLRMWD, including impacts to the water supply of SLRMWD's pumpers, to SLRMWD's adopted groundwater management plan, and to the SLRMWD's own storage rights.

The DEIR's failure to analyze adequately the growth-inducing and cumulative impacts associated with the Project is also troublesome, particularly in the analysis of water availability. Were LAFCO to select SLRMWD as the water service provider for the Project, LAFCO could activate SLRMWD's latent power of water service throughout some or all of SLRMWD's existing service area. Once SLRMWD had the power to provide water service throughout its service area, other landowners could reasonably be expected to convert their agricultural lands to residential development. These growth-inducing impacts were not analyzed in the DEIR.

Interest of SLRMWD

SLRMWD is a special-purpose government agency, organized and existing pursuant to Municipal Water District Law of 1911, Water Code section 71000, et seq. SLRMWD has the power to

> acquire, control, distribute, store, spread, sink, treat, purify, recycle, recapture, and salvage any water, including sewage and storm waters, for the beneficial use or uses of the district, its inhabitants, or the owners of rights to water in the district"

Water Code, section 71610.

H-4 The County disagrees with this comment. See response to comment H-3 above. The source of water for provision of water service to the Proposed Project will be from the SDCWA as indicated in the Water Supply Assessment and Water Verification Report in Appendix N-2 and described in the Final EIR Subchapter 4.6. The water facilities needed to serve the Proposed Project are described in Subchapter 4.6.4 of the Final EIR for each of the potential Municipal Water Districts.

H-5 The comment that "LAFCO is tasked (according to the EIR) with the responsibility of determining which public agency will be designated as the public water purveyor to this project" has been noted by the County.

The adequacy of the availability of imported water for the Proposed Project has been verified as shown in the Water Supply Assessment and Water Verification Report in Technical Appendix N-2 (See also response to comment H-4). The Proposed Project does not propose pumping groundwater off-site or using groundwater as part of an imported water offset program. Groundwater may, however, be used on-site for irrigation purposes to supplement recycled water use during drier and hotter periods of the year. The Proposed Project will require 329 acre-feet per year of non-potable water for outdoor irrigation at the school, park, HOA areas, right-of-ways, and retained groves. Recycled water deliveries from the proposed wastewater treatment plant would provide 189 acre-feet per year towards the demand, and 140 acre-feet per year of on-site groundwater would supply the remainder. Existing on-site agricultural groundwater demand is estimated to be 618 acre-feet per year. The Proposed Project's groundwater demand would be 140 acre-feet per year. This would result in a reduction of approximately 478 acre-feet per year in the overall use of groundwater, compared to existing conditions. Therefore, there would not be a significant impact to existing groundwater resources in the SLRMWD or to the SLRMWD Groundwater Management Plan.

The DEIR's lack of a complete project description, the deferral of LAFCO's analysis, and the lack of specificity as to the source of the water to be served and the plumbing required, undermines this DEIR's purpose, and places SLRMWD in the position of not knowing whether it is this DEIR which supports an agency action by LAFCO, and if so, what manner of agency reorganization is being contemplated, if at all. LAFCO is tasked (according to the DEIR) with the responsibility of determining which pubic agency will be designated the public water purveyor to this project. Designation of any one of the three possible choices would involve impacts to the available water supply, both imported and local, and would also require agency action by not only LAFCO, but by other water agencies which are likely to impose requirements on the Property Owner which themselves will have adverse environmental consequences on pumpers in SLRMWD, and on SLRMWD's adopted Groundwater Management Plan.

Separate and independent from that failure, the DEIR's analysis of the project's impacts to both local and imported water availability falls far short of the analysis required in a competent Water Supply Assessment under the codified provisions of Senate Bill 221 and Senate Bill 610 of the 2001 Legislative Session. More critically to this agency, the DEIR falls short of analyzing the environmental impacts of LAFCO's selection of a water purveyor other than the SLRMWD, including impacts to the water supply of SLRMWD's pumpers, to SLRMWD's adopted groundwater management plan, and to the SLRMWD's own storage rights. H-6 H-7

The DEIR's failure to analyze adequately the growth-inducing and cumulative impacts associated with the Project is also troublesome, particularly in the analysis of water availability. Were LAFCO to select SLRMWD as the water service provider for the Project, LAFCO could activate SLRMWD's latent power of water service throughout some or all of SLRMWD's existing service area. Once SLRMWD had the power to provide water service throughout its service area, other landowners could reasonably be expected to convert their agricultural lands to residential development. These growth-inducing impacts were not analyzed in the DEIR.

Interest of SLRMWD

SLRMWD is a special-purpose government agency, organized and existing pursuant to Municipal Water District Law of 1911, Water Code section 71000, et seq. SLRMWD has the power to

> acquire, control, distribute, store, spread, sink, treat, purify, recycle, recapture, and salvage any water, including sewage and storm waters, for the beneficial use or uses of the district, its inhabitants, or the owners of rights to water in the district"

Water Code, section 71610.

H-6 The County disagrees with this comment. An analysis of Proposed Project impacts to both local and imported water availability is included in the Final EIR, Subchapter 4.6.4. The WSA&V Report (Appendix N-2) evaluates water supplies that are or will be available during normal, single dry, and multiple dry water years during a 20-year projection to meet existing demands, expected demands of the Proposed Project, and reasonably foreseeable planned future water demands served by the public water system.

The WSA&V was prepared pursuant to Public Resources Code Section 21151.9, and California Water Code Sections 10631, 10656, 10910, 10911, 10912, and 10915 referred to as SB 610 and Business and Professions Code Section 11010, Government Code Sections 65867.5, 66455.3, and 66473.7 referred to as SB 221.

The comment fails to provide any legal basis for the conclusion that the water supply analysis is inadequate. Therefore, no further response is required.

H-7 Please see response to comment H-4 above. The EIR analyzes the impacts of the Proposed Project not only to the SLRMWD, but also to the VCMWD and the RMWD (see Final EIR Subchapter 4.6.4).

The Proposed Project's groundwater demand would be 140 acre-feet per year. This would result in a reduction of approximately 478 acre-feet per year in the overall use of groundwater, compared to existing conditions. Therefore, there would not be a significant impact to existing groundwater resources. The groundwater will only be used for non-potable on-site outdoor irrigation during drier and hotter periods along with recycled water. Additionally, the potable water supply for the Proposed Project will be limited to imported water from MET and the SDCWA, which will provide imported water supplies to the MWD (a public water system, as defined by the Water Code, Section 10910(b)) that will serve the Proposed Project.

The DEIR's lack of a complete project description, the deferral of LAFCO's analysis, and the lack of specificity as to the source of the water to be served and the plumbing required, undermines this DEIR's purpose, and places SLRMWD in the position of not knowing whether it is this DEIR which supports an agency action by LAFCO, and if so, what manner of agency reorganization is being contemplated, if at all. LAFCO is tasked (according to the DEIR) with the responsibility of determining which pubic agency will be designated the public water purveyor to this project. Designation of any one of the three possible choices would involve impacts to the available water supply, both imported and local, and would also require agency action by not only LAFCO, but by other water agencies which are likely to impose requirements on the Property Owner which themselves will have adverse environmental consequences on pumpers in SLRMWD, and on SLRMWD's adopted Groundwater Management Plan.

Separate and independent from that failure, the DEIR's analysis of the project's impacts to both local and imported water availability falls far short of the analysis required in a competent Water Supply Assessment under the codified provisions of Senate Bill 221 and Senate Bill 610 of the 2001 Legislative Session. More critically to this agency, the DEIR falls short of analyzing the environmental impacts of LAFCO's selection of a water purveyor other than the SLRMWD, including impacts to the water supply of SLRMWD's pumpers, to SLRMWD's adopted groundwater management plan, and to the SLRMWD's own storage rights.

The DEIR's failure to analyze adequately the growth-inducing and cumulative impacts associated with the Project is also troublesome, particularly in the analysis of water availability. Were LAFCO to select SLRMWD as the water service provider for the Project, LAFCO could activate SLRMWD's latent power of water service throughout some or all of SLRMWD's existing service area. Once SLRMWD had the power to provide water service throughout its service area, other landowners could reasonably be expected to convert their agricultural lands to residential development. These growth-inducing impacts were not analyzed in the DEIR. H-8

Interest of SLRMWD

SLRMWD is a special-purpose government agency, organized and existing pursuant to Municipal Water District Law of 1911, Water Code section 71000, et seq. SLRMWD has the power to

> acquire, control, distribute, store, spread, sink, treat, purify, recycle, recapture, and salvage any water, including sewage and storm waters, for the beneficial use or uses of the district, its inhabitants, or the owners of rights to water in the district"

Water Code, section 71610.

H-8 The County disagrees that the EIR fails to analyze growth and cumulative impacts associated with water availability. In fact, a cumulative impact analysis associated with water availability is found in Subchapter 4.6.5 of the Final EIR. A growth inducing impact analysis associated with water availability is found in Subchapter 1.8.4 of the Final EIR.

This comment also correctly states, "Were LAFCO to select SLRMWD as the water service provider for the Proposed Project, LAFCO could activate SLRMWD's latent power to provide water service." As discussed in response to comment H-13, the SLRMWD has never formally applied to LAFCO to activate its latent powers to provide water, wastewater and recycled water services.

Please see response to comment H-3 which discusses the LAFCO process for determination of the appropriate service provider for the Proposed Project. Until LAFCO has completed its process, it is undetermined whether SLRMWD would be considered as the appropriate service provider because SLRMWD has not applied to LAFCO for activation of its latent powers to provide water, wastewater and recycled water services, nor applied for annexation into the SDCWA and MET, as required in order to provide imported water service to customers. Therefore, it would be speculative, without detailed information from the completed and accepted applications to LAFCO, the SDCWA and MET, to define and determine how the SLRMWD would operate on a District-wide basis if it sought activation of its latent powers.

The Proposed Project, nonetheless, has included in its environmental analysis the more likely and determinable scenario relating to an activation of the SLRMWD's latent powers for the approximate 389-acre Project Site only. This analysis is set forth within the Final EIR, Subchapter 4.6.4 and includes a growth inducing impact analysis, in Subchapter 1.8.4, which concludes that any such impact is less than significant.

The DEIR's lack of a complete project description, the deferral of LAFCO's analysis, and the lack of specificity as to the source of the water to be served and the plumbing required, undermines this DEIR's purpose, and places SLRMWD in the position of not knowing whether it is this DEIR which supports an agency action by LAFCO, and if so, what manner of agency reorganization is being contemplated, if at all. LAFCO is tasked (according to the DEIR) with the responsibility of determining which pubic agency will be designated the public water purveyor to this project. Designation of any one of the three possible choices would involve impacts to the available water supply, both imported and local, and would also require agency action by not only LAFCO, but by other water agencies which are likely to impose requirements on the Property Owner which themselves will have adverse environmental consequences on pumpers in SLRMWD, and on SLRMWD's adopted Groundwater Management Plan.

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Water Code, section 71610.

H-9

H-9 Comment noted.

SLRMWD has implemented a groundwater management plan under the Groundwater Management Planning Act. In addition to its common law right to store and recover water from beneath private property owners' land, the SLRMWD has an adopted policy of acquiring from deannexing landowners the right to store water beneath their property, to maintain the integrity of the Groundwater Management Plan. H-10

Under California's anti-paralleling laws, no other public agency has this power within SLRMWD's service area. The power to determine a plan of service of water, wastewater and recycled water (a "service plan") within SLRMWD's service area is exclusively vested in SLRMWD. In 2006, the Board of Directors approved a District-wide Master Plan of Water, Wastewater and Recycled Water Service (the "Master Plan") and certified an EIR for the Master Plan. In settlement of litigation filed against SLRMWD challenging the Master Plan EIR, SLRMWD decertified the EIR and revoked its approval of the Master Plan. SLRMWD still has no master plan for water service district-wide. A copy of the draft Master Plan and decertified EIR are submitted concurrently herewith. H-11

SLRMWD was never contacted by either the County or the Property Owner to prepare a Project-specific service plan. No SLRMWD-approved service plan exists for the Project site. In order to develop a project-specific service plan, or reconsider its draft Master Plan, SLRMWD would need to enter into a cost-reimbursement agreement with the Property Owner to fund the engineering, legal and other work associated with the preparation and approval of such a plan.

SLRMWD has never sought the activation of its currently latent power to provide water, wastewater and/or recycled water from LAFCO under the Cortese Knox Act -Hertzberg Local Government Reorganization Act of 2000 (the "Cortese-Knox Act").

Problems with the Project Description

Under CEQA, the project description is to include the whole of the project. This DEIR avoids looking at the environmental impacts of the whole of the Project, simply by avoiding a fair analysis of the impacts of most of the required agency approvals. As but one example, without reviewing a SRLMWD-approved service plan for the Project site, the County had no factual basis to determine that the service of water, wastewater and recycled water would not have an adverse environmental impact. As the Project site lacks water and wastewater service, the project description in the DEIR must include a study of the environmental effects the infrastructure associated with providing those services to the Project site. The only agency with the current authority to lay out that service plan is SLRMWD and it has not done so. The Project description is incomplete.

H-10 Comment noted.

H-11 The County acknowledges the comment regarding SLRMWD's representation of its past actions relating to its District-wide Master Plan of water, wastewater and recycled water facilities and its Master Plan EIR. The SLRMWD is a MWD, formed and established pursuant to state law that does not provide water service. Moreover, there is no privately owned water company providing water service within or adjacent to the boundaries of the SLRMWD. Without the existence of a privately owned water company within the boundaries of the SLRMWD, or in the immediate area around the SLRMWD, there does not appear to be a "paralleling" issue related to the provision of water service within the district boundaries.

The Proposed Project also does not impose or mandate any plan of service upon the SLRMWD, or, for that matter, the RMWD or the VCMWD. The ultimate decision as to a MWD's "service plan" will be the responsibility of the MWD identified by LAFCO as the service provider for the Project Site.

Although the SLRMWD's Master Plan approval was rescinded after a legal challenge to the Master Plan EIR was filed, and the Master Plan EIR concurrently decertified by the District's Board, the water, wastewater, and recycled water facilities identified in the Master Plan for the westernmost portion of the district boundary provided adequate background data to formulate a service plan for the Project Site and the Proposed Project. The Proposed Project service plan is described in the Public Facilities Subchapter of the Final EIR, Subchapter 4.6. Groundwater use proposed for the Project Site is discussed in response to comment H-5 above.

SLRMWD has implemented a groundwater management plan under the Groundwater Management Planning Act. In addition to its common law right to store and recover water from beneath private property owners' land, the SLRMWD has an adopted policy of acquiring from deannexing landowners the right to store water beneath their property, to maintain the integrity of the Groundwater Management Plan.

Under California's anti-paralleling laws, no other public agency has this power within SLRMWD's service area. The power to determine a plan of service of water, wastewater and recycled water (a "service plan") within SLRMWD's service area is exclusively vested in SLRMWD. In 2006, the Board of Directors approved a District-wide Master Plan of Water, Wastewater and Recycled Water Service (the "Master Plan") and certified an EIR for the Master Plan. In settlement of litigation filed against SLRMWD challenging the Master Plan EIR, SLRMWD decertified the EIR and revoked its approval of the Master Plan. SLRMWD still has no master plan for water service district-wide. A copy of the draft Master Plan and decertified EIR are submitted concurrently herewith.

SLRMWD was never contacted by either the County or the Property Owner to prepare a Project-specific service plan. No SLRMWD-approved service plan exists for the Project site. In order to develop a project-specific service plan, or reconsider its draft Master Plan, SLRMWD would need to enter into a cost-reimbursement agreement with the Property Owner to fund the engineering, legal and other work associated with the preparation and approval of such a plan. H-12

SLRMWD has never sought the activation of its currently latent power to provide water, wastewater and/or recycled water from LAFCO under the Cortese Knox Act -Hertzberg Local Government Reorganization Act of 2000 (the "Cortese-Knox Act"). H-13

Problems with the Project Description

Under CEQA, the project description is to include the whole of the project. This DEIR avoids looking at the environmental impacts of the whole of the Project, simply by avoiding a fair analysis of the impacts of most of the required agency approvals. As but one example, without reviewing a SRLMWD-approved service plan for the Project site, the County had no factual basis to determine that the service of water, wastewater and recycled water would not have an adverse environmental impact. As the Project site lacks water and wastewater service, the project description in the DEIR must include a study of the environmental effects the infrastructure associated with providing those services to the Project site. The only agency with the current authority to lay out that service plan is SLRMWD and it has not done so. The Project description is incomplete.

H-12 On February 18, 2009, the SLRMWD sent a letter which stated that the SLRMWD did not have a master plan to provide water and wastewater services to the Project Site and suggested that the applicant fund, in part, SLRMWD's preparation of the Master Plan, Master Plan EIR, MSR/SOI and other requisite and related studies. This effort was in furtherance of SLRMWD's plan to activate latent powers to provide water, wastewater and recycled water services on a district-wide basis. The applicant requested that SLRMWD prepare the Master Plan in two phases. Phase I would have included water, wastewater and recycled water facilities for the westernmost portion of the district boundary only. Phase II would have required subsequent approvals, but only after the Board of Supervisors approved development projects in the easternmost portion of the district boundary.

SLRMWD's previously approved a Master Plan and Master Plan EIR in 2006. The District-wide Master Plan approval was rescinded, and the Master Plan EIR was decertified, after a legal challenge to the District's Master Plan EIR. Despite the correspondence identified above, SLRMWD has not since undertaken any efforts to activate its latent powers to provide water, wastewater and recycled water services. However, the service evaluation identified in the Master Plan for the westernmost portion of the district boundary provided the background data necessary for the Proposed Project to formulate the service plan for the Project Site. The facilities are described in the Public Facilities Subchapter of the Final EIR, Subchapter 4.6.

Please see also response to comment H-13.

H-13 Comment noted.

SLRMWD has implemented a groundwater management plan under the Groundwater Management Planning Act. In addition to its common law right to store and recover water from beneath private property owners' land, the SLRMWD has an adopted policy of acquiring from deannexing landowners the right to store water beneath their property, to maintain the integrity of the Groundwater Management Plan.

Under California's anti-paralleling laws, no other public agency has this power within SLRMWD's service area. The power to determine a plan of service of water, wastewater and recycled water (a "service plan") within SLRMWD's service area is exclusively vested in SLRMWD. In 2006, the Board of Directors approved a District-wide Master Plan of Water, Wastewater and Recycled Water Service (the "Master Plan") and certified an EIR for the Master Plan. In settlement of litigation filed against SLRMWD challenging the Master Plan EIR, SLRMWD decertified the EIR and revoked its approval of the Master Plan. SLRMWD still has no master plan for water service district-wide. A copy of the draft Master Plan and decertified EIR are submitted concurrently herewith.

SLRMWD was never contacted by either the County or the Property Owner to prepare a Project-specific service plan. No SLRMWD-approved service plan exists for the Project site. In order to develop a project-specific service plan, or reconsider its draft Master Plan, SLRMWD would need to enter into a cost-reimbursement agreement with the Property Owner to fund the engineering, legal and other work associated with the preparation and approval of such a plan.

SLRMWD has never sought the activation of its currently latent power to provide water, wastewater and/or recycled water from LAFCO under the Cortese Knox Act -Hertzberg Local Government Reorganization Act of 2000 (the "Cortese-Knox Act").

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Under CEQA, the project description is to include the whole of the project. This DEIR avoids looking at the environmental impacts of the whole of the Project, simply by avoiding a fair analysis of the impacts of most of the required agency approvals. As but one example, without reviewing a SRLMWD-approved service plan for the Project site, the County had no factual basis to determine that the service of water, wastewater and recycled water would not have an adverse environmental impact. As the Project site lacks water and wastewater service, the project description in the DEIR must include a study of the environmental effects the infrastructure associated with providing those services to the Project site. The only agency with the current authority to lay out that service plan is SLRMWD and it has not done so. The Project description is incomplete.

H-14

H-15

H-14 The County disagrees with this comment that a fair analysis of the impacts of most of the required agency approvals was avoided. Complete analysis of the environment effects of the Proposed Project were included in the EIR for service and facilities for SDCWA, MET, LAFCO, VCMWD, RMWD, SLRMWD, and North County Fire Protection District actions. (see Final EIR, Subchapters 1.2.1 and 4.6.4). The potential service plans for each in Subchapter 4.6.4.

Please see response to comment H-12 addressing the history and status of the SLRMWD's Master Plan.

H-15 The County disagrees that the EIR does not study the environmental effects of the infrastructure associated with the provision of water and wastewater service to the Project Site. Please see responses to comments H-3, H-4 and H-7. Regarding SLRMWD authority, please see response to comment H-11.

This is not an analysis that can be deferred. The decisions by SLRMWD on the location and size of critical elements of infrastructure – including a tie-in into a regional aqueduct, storage tanks, groundwater production wells, water treatment facilities and the wastewater treatment plant – could have significant Project-specific and growth-inducing environmental impacts. SLRMWD incorporates by this reference the entirety of its decertified Master Plan EIR to demonstrate that its future decision on a service plan for the Project could have significant environmental impacts. H-16

Since the Project description in the DEIR is fatally incomplete due to its failure to contain an adequate discussion of water and wastewater infrastructure, the County must not certify the DEIR. Instead, the County should work cooperatively with SLRMWD and the Property Owner proponent to develop a service plan for the Project and only then analyze the environmental impacts of that infrastructure design. H-17

Problems with the Alternatives Analysis

The DEIR accurately recognizes that SLRMWD has not had its powers to provide municipal water, sewer and recycled water service activated by LAFCO, as defined under the Cortese Knox Act. The DEIR does not point out, however, that under its organic act, SLRMWD already has the power to furnish water, sewer and wastewater services so that the likelihood of doing so is more than potential. Two other public agencies, Rainbow Municipal Water District ("RMWD") and Valley Center Municipal Water District ("VCMWD") also have the power under their organic acts to serve water and sewer and have activated powers as defined under the Cortese Knox Act. H-18 H-19

Under the Cortese Knox Act, the Property Owner has the right to apply to LAFCO for a reorganization pursuant to which the Project site would be detached from SLRMWD and annexed to either RMWD or VCMWD. But the provision of water, wastewater and recycled water services to the Project site by either of those agencies is an alternative to the proposed project. The DEIR must engage in an appropriate analysis of these alternatives. It does not do so. These alternative projects are instead buried in the Project description. As a result, the DEIR does not have a clear, consistent project description.

The DEIR must be revised to describe water and wastewater service from RMWD and VCMWD as Project alternatives. The service plans of those agencies to the Project site must be part of the description of the alternative Project and the environmental impacts of those alternative service plans appropriately analyzed.

The DEIR's lack of a consistent, stable project description with regard to the provision of water and wastewater services leaves the SLRMWD exposed. The Water / Wastewater section of the Project description states that one of three governmental agencies – SLRMWD, RMWD, or VCMWD – will be the water service provider. Each of these agencies has the independent

H-16 The SLRMWD's decertified Master Plan EIR (not only for District-wide, but also for extra-territorial serving water, wastewater and recycled water facilities) no longer has any legal effect because the District decertified its Master Plan EIR and rescinded its approval of the District's Master Plan after a legal challenge was filed. The water, wastewater and recycled water facilities identified in the Master Plan in the westernmost portion of the district boundary, however, provided background data necessary for the Proposed Project to formulate the plan of service for the Project Site. Furthermore, as stated earlier in the comment letter (see comment H-13), the SLRMWD has not applied to LAFCO to activate its latent powers to provide water, wastewater, and recycled water services.

Please also see responses to comments H-4 and H-11.

H-17 The County disagrees with the comment that the project description is fatally incomplete. The remainder of this comment expresses a request for cooperation among the parties and does not raise an issue as to the adequacy of the EIR pursuant to CEQA.

H-18 The comment states that SLRMWD has the power to furnish water, sewer and wastewater services under the District's organic act. However, LAFCO has indicated that before SLRMWD can furnish water, sewer and wastewater services, it must activate its latent powers through appropriate LAFCO proceedings. This is consistent with SLRMWD's actions in 2005 and 2006 when the District entered into agreements with property owners to fund efforts to activate its latent powers through LAFCO proceedings.

H-19 The County agrees with this comment. The EIR identifies the RMWD and VCMWD as potential service providers. The Final EIR, Subchapter 1.2.1 discusses infrastructure improvements necessary for water and wastewater services for each MWD; and Subchapter 4.6.4 discusses potential system and infrastructure impacts associated with each MWD.

This is not an analysis that can be deferred. The decisions by SLRMWD on the location and size of critical elements of infrastructure – including a tie-in into a regional aqueduct, storage tanks, groundwater production wells, water treatment facilities and the wastewater treatment plant – could have significant Project-specific and growth-inducing environmental impacts. SLRMWD incorporates by this reference the entirety of its decertified Master Plan EIR to demonstrate that its future decision on a service plan for the Project could have significant environmental impacts.

Since the Project description in the DEIR is fatally incomplete due to its failure to contain an adequate discussion of water and wastewater infrastructure, the County must not certify the DEIR. Instead, the County should work cooperatively with SLRMWD and the Property Owner proponent to develop a service plan for the Project and only then analyze the environmental impacts of that infrastructure design.

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The DEIR accurately recognizes that SLRMWD has not had its powers to provide municipal water, sewer and recycled water service activated by LAFCO, as defined under the Cortese Knox Act. The DEIR does not point out, however, that under its organic act, SLRMWD already has the power to furnish water, sewer and wastewater services so that the likelihood of doing so is more than potential. Two other public agencies, Rainbow Municipal Water District ("RMWD") and Valley Center Municipal Water District ("VCMWD") also have the power under their organic acts to serve water and sewer and have activated powers as defined under the Cortese Knox Act.

Under the Cortese Knox Act, the Property Owner has the right to apply to LAFCO for a reorganization pursuant to which the Project site would be detached from SLRMWD and annexed to either RMWD or VCMWD. But the provision of water, wastewater and recycled water services to the Project site by either of those agencies is an alternative to the proposed project. The DEIR must engage in an appropriate analysis of these alternatives. It does not do so. These alternative projects are instead buried in the Project description. As a result, the DEIR does not have a clear, consistent project description.

The DEIR must be revised to describe water and wastewater service from RMWD and VCMWD as Project alternatives. The service plans of those agencies to the Project site must be part of the description of the alternative Project and the environmental impacts of those alternative service plans appropriately analyzed.

The DEIR's lack of a consistent, stable project description with regard to the provision of water and wastewater services leaves the SLRMWD exposed. The Water / Wastewater section of the Project description states that one of three governmental agencies – SLRMWD, RMWD, or VCMWD – will be the water service provider. Each of these agencies has the independent

H-20

H-20 The County disagrees with the comment. The EIR for the Proposed Project considers and evaluates the environmental effects associated with the provision of water, wastewater and recycled water facilities and services that may be provided by VCMWD, the RMWD, and the SLRMWD. (Please see response to comment H-19 and Final EIR Appendices N-1, N-2 and N-3).

The Proposed Project lies only partially within the SLRMWD (60 percent is in the SLRMWD). The portion outside of the SLRMWD does not fall within any MWD. The SLRMWD does not have authority to provide water, wastewater, and recycled water service unless its latent powers have been activated by LAFCO action. Furthermore, the SLRMWD is not a member of the SDCWA or MET and the Proposed Project currently has no ability to obtain imported water from those agencies. Therefore, it would not be appropriate for the project description to include SLRMWD as the primary service provider and RMWD and VCMWD as alternative service providers. The VCMWD and the RMWD are members of the SDCWA and MET and both districts are authorized to provide water, wastewater, and recycled water services. It is for these reasons that the VCMWD was identified in the EIR as the preferred service provider for the Proposed Project. Ultimately, however, it will be LAFCO, after conducting a MSR for the area and making a SOI determination, that will determine which MWD most logically should supply service to the Project Site. The Proposed Project applicant will, after obtaining project approval from the County, make its application to LAFCO for the MSR and SOI Determination.

authority to determine its own infrastructure plan for serving the Project. The DEIR must, therefore, analyze the environmental impacts associated with the service plan of each different water agency. These distinct impacts must be analyzed as separate alternatives under the DEIR, but the DEIR fails to do so. H-20

Problems with Growth-Inducing Impacts Analysis

One alternative in the DEIR is for LAFCO to activate SLRMWD's latent power to provide water, wastewater and recycled water service to the Project site. There is ambiguity in the law as to whether LAFCO has the authority to activate SLRMWD's latent powers for only the Project site.

If LAFCO activates SLRMWD's powers for an area larger than the Project site, other landowners within its activated powers service area will likely seek to receive water, wastewater and/or recycled water services from SLRMWD. H-21

Activating SLRMWD's latent powers for one landowner reasonably will lead to growth elsewhere in its service area. SLRMWD incorporates by this reference the analysis set forth in its now-decertified EIR for its Master Plan of the potential projects to be served by it if its latent powers were activated. H-22

The growth-inducing impacts associated with the activation of SLRMWD's latent powers need to be analyzed in the DEIR. They are not. H-23

Failure to Analyze the Reliability of Water Supplies

The DEIR asserts that groundwater is to be a back-up supply. But Southern California is in a multi-year climatic and regulatory drought and the reliability of imported supplies continues to drop. The DEIR must seriously consider the ability of the Project to be served entirely by local supply, but it does not do so. H-24

Agricultural use of groundwater is different from municipal use. People expect and have the right to receive a highly-reliable supply of potable water. There is insufficient evidence in the DEIR to establish that any of the water agencies could meet the demand of the Project on local supplies only. SLRMWD is in the best position to do so because of its ability to build multiple well fields on the San Luis Rey River within its service area. The DEIR must do much more to establish that either VCMWD or RMWD would have enough water and water rights in the land to be annexed to it to meet the demand of the Project. H-25

H-21 Please see response to comment H-8.

H-22 Comment noted.

H-23 See response to comment H-8.

H-24 The Proposed Project will use groundwater as a supplement to recycled water for non-potable irrigation water demand. The Proposed Project does not propose the use of groundwater for potable water demand. All potable water proposed for the Proposed Project will be delivered by a MWD that obtains its imported water from the CWA. Please also see response to comment H-5.

H-25 See response to comment H-24.

Failure to Analyze Impacts of Detachment

One alternative in the DEIR is for LAFCO to detach the Project site from SLRMWD and annex that land to another agency. The DEIR does not provide any analysis of the environmental impacts of detachment of the Project site. H-26

SLRMWD believes that detachment of the Project site could have significant environmental impacts on the land remaining within its service area. There may be so little land within SLRMWD that is capable of being developed that the cost of building the water and wastewater infrastructure to serve that land becomes prohibitive. The land may be forced to remain in agriculture indefinitely, or land not currently in agriculture could become agricultural lands because no other economic use exists. Agriculture has its own environmental impacts, including agricultural runoff to the San Luis Rey River. In addition, denying these landowners the ability to convert their land from agriculture to another use may well be inconsistent with the County's General Plan. H-27

DEIR Mitigation Measures Requested by SLRMWD

Because the DEIR fails to impose mitigation and monitoring measures sufficient to ensure that the Project will have a less than significant impact on local water resources and the SLRMWD's Groundwater Management Plan, SLRMWD, as the CEQA responsible agency, requests that the following measures be incorporated into the Project as Mitigation Measures, and through inclusion in the DEIR's Mitigation Monitoring Report for the Project. H-28

Deed Restrictions, Future Conveyance of a Well Site, Future Conveyance of Easements and Rights of Way H-29

- The execution by the Property Owner of a deed, in favor of SLRMWD, restricting the export of all water from the Owner's property
- Prior to the issuance of a Water Supply Assessment, or issuance of the first grading permit for the Project, whichever is sooner, the Property Owner will convey to SLRMWD reasonable and appropriate easements for rights of access to test and read meters, to monitor groundwater elevations, and to monitor groundwater production, which readings will take place during normal business hours, through a mutually acceptable route to be determined by the parties but which is suitable for the SLRMWD's purposes,, and which rights of access are to be reduced to writing and recorded in the San Diego County Recorder's office.
- Prior to the issuance of a Water Supply Assessment, or prior to the issuance of the first grading permit for the Project, whichever is sooner, the Property Owner will grant to SLRMWD a wellsite in a mutually agreeable location suitable for SLRMWD's purposes,

H-26 See responses to comments H-14 and H-20.

H-27 The Proposed Project will obtain its potable water supply from imported water sources. The Proposed Project will obtain its non-potable water supply from (1) recycled water deliveries from an on-site wastewater treatment plant, and (2) on-site groundwater wells for irrigation of on-site landscaping and retained groves on-site. The Project Site has existing 45-acre avocado groves and 135-acre citrus orchards which have been in operation since the 1980s. Existing on-site agricultural groundwater demand at the Project Site is estimated to be approximately 618 acre-feet per year. The proposed groundwater demand of approximately 140 acre-feet per year would result in a reduction of approximately 77 percent of groundwater demand compared to existing conditions. Therefore, direct and cumulative impacts to groundwater resources are less than significant.

H-28 None of the "mitigation measures" requested by the commenter in comments H-29 through H-38, or "enforcement mechanisms" suggested in comments H-39 through H-41, are measures that reduce significant environmental effects under CEQA. It should be noted, however, that the Proposed Project will not be exporting groundwater off-site from the Project Site. Any continued groundwater usage will be limited to supplementing recycled water supplies for on-site irrigation purposes. The measures requested by the comment are requirements that the SLRMWD would likely request in LAFCO's reorganization proceedings. See also response to comment H-5.

H-29 Please see response to comment H-28.

Failure to Analyze Impacts of Detachment

One alternative in the DEIR is for LAFCO to detach the Project site from SLRMWD and annex that land to another agency. The DEIR does not provide any analysis of the environmental impacts of detachment of the Project site.

SLRMWD believes that detachment of the Project site could have significant environmental impacts on the land remaining within its service area. There may be so little land within SLRMWD that is capable of being developed that the cost of building the water and wastewater infrastructure to serve that land becomes prohibitive. The land may be forced to remain in agriculture indefinitely, or land not currently in agriculture could become agricultural lands because no other economic use exists. Agriculture has its own environmental impacts, including agricultural runoff to the San Luis Rey River. In addition, denying these landowners the ability to convert their land from agriculture to another use may well be inconsistent with the County's General Plan.

DEIR Mitigation Measures Requested by SLRMWD

Because the DEIR fails to impose mitigation and monitoring measures sufficient to ensure that the Project will have a less than significant impact on local water resources and the SLRMWD's Groundwater Management Plan, SLRMWD, as the CEQA responsible agency, requests that the following measures be incorporated into the Project as Mitigation Measures, and through inclusion in the DEIR's Mitigation Monitoring Report for the Project.

Deed Restrictions, Future Conveyance of a Well Site, Future Conveyance of Easements and Rights of Way

- The execution by the Property Owner of a deed, in favor of SLRMWD, restricting the export of all water from the Owner's property

- Prior to the issuance of a Water Supply Assessment, or issuance of the first grading permit for the Project, whichever is sooner, the Property Owner will convey to SLRMWD reasonable and appropriate easements for rights of access to test and read meters, to monitor groundwater elevations, and to monitor groundwater production, which readings will take place during normal business hours, through a mutually acceptable route to be determined by the parties but which is suitable for the SLRMWD's purposes,, and which rights of access are to be reduced to writing and recorded in the San Diego County Recorder's office. H-30

- Prior to the issuance of a Water Supply Assessment, or prior to the issuance of the first grading permit for the Project, whichever is sooner, the Property Owner will grant to SLRMWD a wellsite in a mutually agreeable location suitable for SLRMWD's purposes, H-31

H-30 Please see response to comment H-28.

H-31 Please see response to comment H-28.

together with reasonable and appropriate easements for access to and from the wellsite, to accommodate the installation by SLRMWD of an aquifer recovery well, for the recovery of any water stored by SLRMWD in the basin. The well will be installed at the SLRMWD's expense and shall be metered. H-31

Monitoring and Groundwater Management

- The Property Owner must comply with the terms of San Diego County's Groundwater Ordinance, and furnish timely written, e-mail and telephone notice to SLRMWD's Board President and its General Counsel, of all meetings with the County regarding the Ordinance. The Property Owner will enter into a cost-reimbursement agreement with SLRMWD to fund SLRMWD's participation in the Ordinance compliance process. H-32

H-32 Please see response to comment H-28.

- Prior to issuance of a Water Supply Assessment for the Project, or prior to issuance of the first grading permit for the Project, whichever is sooner, the Property Owner and SLRMWD will develop a groundwater mitigation monitoring plan suitable to SLRMWD, and consistent with SLRMWD's adopted groundwater management plant. H-33

H-33 Please see response to comment H-28.

- As part of the groundwater mitigation monitoring plan, all pumping undertaken from any pumping facility in existence or later installed on the Property Owner's land is to be metered, with the meter installed and maintained at Property Owner's expense. H-34

H-34 Please see response to comment H-28.

- No pipeline system for pumped groundwater or for reclaimed or recycled water will be interconnected to any water system conveying water to or from Property Owner's property. H-35

H-35 Please see response to comment H-28.

- The Property Owner is to execute a written power of attorney or letter of authorization or other suitable document granting the SLRMWD permission to verify with San Diego Gas and Electric or its successor utility, power and pumping records. H-36

H-36 Please see response to comment H-28

District Reorganization

- In the event that the DEIR is used to support the reorganization of local districts, in lieu of a condition of that reorganization, the payment to SLRMWD of the present worth of the next 20 years of projected annual water supply assessments (based upon the average of the past 10 years of water supply assessments). This sum is to be paid to SLRMWD by the Property Owner prior to the detachment of the Property from SLRMWD, H-37

H-37 Please see response to comment H-28.

- The Property Owner will enter into a cost-reimbursement agreement with the SLRMWD, pursuant to which the SLRMWD can fund the preparation of an adequate plan of service of water, wastewater and recycled water to the property owners in the SLRMWD. H-38

H-38 Please see response to comment H-28.

Enforcement Mechanisms

- SLRMWD's attorneys fees and costs of enforcement of any portion of any Mitigation Measure shall be borne by the Property Owner — H-39
- The requirement to undertake implementation of the Mitigation Measures, and to enter into negotiations to develop a Mitigation Monitoring Plan, are binding on the Property Owner's successors and assigns. — H-40
- The benefits of the Mitigation Measures, including interests in real property and the terms of any agreement entered into, insure to the benefit of SLRMWD's successors and assigns. — H-41

Conclusion

For the reasons stated herein, SLRMWD respectfully requests that the County not certify the EIR for the Project until the foregoing mitigation measures have been incorporated into the Project, and the Project's Mitigation Monitoring plan similarly incorporates SLRMWD's proposed mitigation measures. — H-42

Sincerely,

SmithTrager LLP - MacArthur Office

Susan M. Trager

SMT:mwy

Attachment Under Separate Cover:

San Luis Rey Municipal Water District's District-wide Master Plan of Water, Wastewater and Recycled Water Service (the "Master Plan")

San Luis Rey Municipal Water District's PEIR for the Master Plan

H-39 Please see response to comment H-28.

H-40 Please see response to comment H-28.

H-41 Please see response to comment H-28.

H-42 Comment noted.

Letter I

VALLEY CENTER WATER DISTRICT

A Public Agency Organized July 12, 1954

Board of Directors
Gary A. Broomell
President
Robert A. Polito
Vice President
Merle J. Aleshire
Director
Charles W. Stone, Jr.
Director
Randy D. Haskell
Director

October 12, 2009

Dennis Campbell
County of San Diego
Department of Planning & Land Use
5201 Ruffin Road, Suite B
San Diego, CA 92123

RE: DRAFT EIR COMMENTS - THE MEADOWOOD PROJECT
GPA 04-002; SP 04-001; REZ 04-004; TM 5354; S04-005; S04-006, S04-007; MUP 08-023; LOG NO. 04-02-004; SCH NO. 2004051028

Dear Mr. Campbell:

Thank you for the opportunity to comment on the referenced planning documents. The project is not within the Valley Center Municipal Utility District, however, we understand that there is a very real possibility that VCMWD will be asked to provide service. As such, we offer the following comments: I-1

In Section 2.7 (and Section 7.2), the document indicates that LAFCO will make the final determination regarding the water and wastewater provider. In fact, LAFCO will make a recommendation as to the preferred provider. Final determination will be up to the Board of Directors of the providing agency. I-2

In Section 7.1, the document indicates that LAFCO is evaluating potential providers to the Meadowood project and other proposed developments in the area. This action was in response to SLRMWD's request to activate their latent powers to provide water and wastewater service to the area. LAFCO has never finalized the MSR/SOI update requested by San Luis Rey MWD due to challenges to the environmental documents that SLRMWD chose not to defend. It is anticipated that LAFCO will require a new MSR be completed (or the previous one updated) for the Meadowood project. VCMWD would recommend that this MSR effort include all the current projects in the vicinity of the northeast quadrant of the I-15 and SR-76 Interchange that would require a Publicly Owned Treatment Works for wastewater service and, if VCMWD is to be considered, the property needed to make the annexation contiguous with our boundary. The environmental document to support this MSR should include an evaluation of a regional wastewater treatment site and facility. I-3

29300 Valley Center Road • P.O. Box 67 • Valley Center, CA 92082
(760) 749-1600 • FAX (760) 749-6478 • TDD (760) 749-2665 • www.valleycenterwater.org • e-mail vcwater@valleycenterwater.org

I-1 Introductory comment is noted. The County acknowledges that Valley Center Municipal Water District (VCMWD) may become the service provider for the Proposed Project.

I-2 Subchapter 1.2.1, *LAFCO*, of the Final EIR has been revised to acknowledge that LAFCO will make a recommendation as to the preferred provider. The final determination will be up to the Board of Directors of the providing agency.

I-3 This comment provides an overview of previous and future Municipal Water District (MWD) annexation proceedings. The County would not be the lead agency responsible for preparing a Municipal Service Review (MSR), and as such cannot comment on what should or should not be included. Subchapter 1.2.1, *LAFCO* of the Final EIR has been revised to clarify that because a MSR is not subject to CEQA, there will be no supporting environmental document prepared along with that report. However, an EIR will be prepared for the Sphere of Influence (SOI) report which will evaluate factors that would include the siting and sizing of a regional wastewater treatment plant (WWTP).

Section 8.5 - Conceptual Landscape Plan. The document indicates that the Fallbrook Design Guidelines, I-15 Corridor Scenic Preservation Guidelines and the County Landscape Water Conservation Design Manual will be implemented. The document should emphasize that the landscaping plant selections and recommendations will be amenable to use of recycled water. Landscaping plans should maximize the use of recycled water to the greatest extent possible to minimize imported water demand requirements for the project. I-4

Meadowood Water Study (Dexter Wilson)

The water study was reviewed from the standpoint of policy issue for inclusion into the VCMWD service area. A review of specific facilities is not included and would be performed in conjunction with a request for annexation. In light of this, the following comments are presented: I-5

Water Offset Program page 2-12. Meadowood would not be able to fund a portion of a desalination project to provide a water demand offset. This would be contrary to Metropolitan's policy on desalination projects, which provides for desalination projects to replace imported supplies to an area, not increase the total supply. I-6

Annexation requirements to VCMWD would include providing water supplies needed to offset the development net impact plus 0.5 acre foot per year for each equivalent residential unit of development.

Wastewater Service Alternative Analysis for Meadowood (RW Beck)

The current plant location and configuration is unacceptable as a permanent facility.

Our main objections are that the plant site and facilities are not expandable and are located too close to residential property. We could accept this configuration only as an interim facility until a larger, more remote, permanent regional site is identified. However, as long as the interim facility existed, we would require that a buffer of not less than 250 feet be maintained between the plant and the nearest residential lot. The permanent regional site should serve all development anticipated in the area from I-15 east to roughly the Rosemary Mountain Quarry area. Financial securities for Meadowood development's share of a future permanent facility would also be required. These conditions would be memorialized in the Conditions of Annexation, if these lands were to annex to VCMWD.

Also conditioned would be a stipulation that if this interim site were to become a permanent facility, the District would need additional land dedicated by Meadowood for future expansion and the interim buffer of 250 feet would become permanent, which would preclude development of many of the lots shown near the current plant site.

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I-4 The County concurs with this comment. The comment refers to the Meadowood Specific Plan Amendment (SPA), Chapter 8, Community Design Guidelines, 8.5, Conceptual Landscape Plan. As recommended by the comment, the SPA has been revised to emphasize that the landscaping plant selections and recommendations will be amenable to use of recycled water. Consistent with this comment, the intent of the Proposed Project is to maximize use of recycled water to minimize imported water demands as addressed in the Final EIR, Subchapter 4.6.4.

I-5 Comment noted. This comment is introductory to the comments that follow and thus no further response is necessary.

I-6 The County disagrees that the proposed offset program (funding a portion of a desalination project) would be "contrary to Metropolitan's policy on desalination project. In fact, Metropolitan's *Policy and Principles for Brackish and Seawater Desalination,* adopted at the February 13, 2001 meeting of the Metropolitan Board, contains the following five policy principles:

1. In its IRP (Integrated Resource Plan) analysis, Metropolitan shall consider development of full-scale desalination on an incremental basis, in advance of the projected need for desalination, for the purpose of developing regional expertise in this resource rather than anticipating the initial development of multiple full-scale desalination projects concurrently.

2. Metropolitan will seek to develop financial plans for desalination that combine federal, state, Metropolitan and other regional and local funding, and ensure that benefits including water quality and reliability are commensurate with investments from those sources. Metropolitan may partner with public and private entities for the development of desalination. Metropolitan will seek these partnerships through competitive processes to help further lower the costs for this resource.

Section 8.5 - Conceptual Landscape Plan. The document indicates that the Fallbrook Design Guidelines, I-15 Corridor Scenic Preservation Guidelines and the County Landscape Water Conservation Design Manual will be implemented. The document should emphasize that the landscaping plant selections and recommendations will be amenable to use of recycled water. Landscaping plans should maximize the use of recycled water to the greatest extent possible to minimize imported water demand requirements for the project.

Meadowood Water Study (Dexter Wilson)

The water study was reviewed from the standpoint of policy issue for inclusion into the VCMWD service area. A review of specific facilities is not included and would be performed in conjunction with a request for annexation. In light of this, the following comments are presented:

Water Offset Program page 2-12. Meadowood would not be able to fund a portion of a desalination project to provide a water demand offset. This would be contrary to Metropolitan's policy on desalination projects, which provides for desalination projects to replace imported supplies to an area, not increase the total supply. } I-6

Annexation requirements to VCMWD would include providing water supplies needed to offset the development net impact plus 0.5 acre foot per year for each equivalent residential unit of development.

Wastewater Service Alternative Analysis for Meadowood (RW Beck)

The current plant location and configuration is unacceptable as a permanent facility.

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Also conditioned would be a stipulation that if this interim site were to become a permanent facility, the District would need additional land dedicated by Meadowood for future expansion and the interim buffer of 250 feet would become permanent, which would preclude development of many of the lots shown near the current plant site.

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I-6 (cont.)

3. Metropolitan may pursue activities critical to the development of desalination, such as land or other property acquisition that may be necessary in advance of the planning horizons established for the resource.

4. Metropolitan will lead in the development of legislative strategies that, in coordination with the member agencies, build consensus amongst federal, state, and local policy makers to secure decisions favorable to the development of desalination for the region. These strategies will address:

   a. Funding in the form of grants and/or loans from various sources.

   b. Legislation that facilitates the components of the development process for desalination, such as financing, permitting, constructing and operating.

   c. Informing and educating various constituencies on the critical role that desalination plays for the region's future.

5. Metropolitan will promote desalination research and innovation through partnerships that competitively fund projects that provide benefits to the development of desalination for the region.

Metropolitan includes desalination as part of its Local Resources Program, along with recycled water and groundwater recovery. Metropolitan provides sliding scale financial incentives for projects within the Local Resources Program. From Metropolitan's October 12, 2009 *Semiannual Board Report on Metropolitan's Local Resources, Desalination, and Conservation Programs*, "Metropolitan provides financial incentives for local development of water recycling and groundwater recovery projects that reduce demand or prevent a new demand on Metropolitan's imported water supplies through either direct replacement of potable water or increased regional groundwater production. The Local Resources Program is an integral part of meeting the Integrated Resources Plan (IRP) target of 750,000 acre-feet per year by 2025 for recycled water production, groundwater recovery and seawater desalination." Therefore, the Proposed Project's proposal to fund a portion of a desalination project would not be contrary to any portion of the Metropolitan policy.

Section 8.5 - Conceptual Landscape Plan. The document indicates that the Fallbrook Design Guidelines, I-15 Corridor Scenic Preservation Guidelines and the County Landscape Water Conservation Design Manual will be implemented. The document should emphasize that the landscaping plant selections and recommendations will be amenable to use of recycled water. Landscaping plans should maximize the use of recycled water to the greatest extent possible to minimize imported water demand requirements for the project.

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Water Offset Program page 2-12. Meadowood would not be able to fund a portion of a desalination project to provide a water demand offset. This would be contrary to Metropolitan's policy on desalination projects, which provides for desalination projects to replace imported supplies to an area, not increase the total supply.

Annexation requirements to VCMWD would include providing water supplies needed to offset the development net impact plus 0.5 acre foot per year for each equivalent residential unit of development. } I-7

Wastewater Service Alternative Analysis for Meadowood (RW Beck)

The current plant location and configuration is unacceptable as a permanent facility. } I-8

Our main objections are that the plant site and facilities are not expandable and are located too close to residential property. We could accept this configuration only as an interim facility until a larger, more remote, permanent regional site is identified. However, as long as the interim facility existed, we would require that a buffer of not less than 250 feet be maintained between the plant and the nearest residential lot. } I-9

The permanent regional site should serve all development anticipated in the area from I-15 east to roughly the Rosemary Mountain Quarry area. Financial securities for Meadowood development's share of a future permanent facility would also be required. These conditions would be memorialized in the Conditions of Annexation, if these lands were to annex to VCMWD. } I-10

Also conditioned would be a stipulation that if this interim site were to become a permanent facility, the District would need additional land dedicated by Meadowood for future expansion and the interim buffer of 250 feet would become permanent, which would preclude development of many of the lots shown near the current plant site.

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I-7 The County acknowledges this comment and recognizes that the applicant will have to comply with VCMWD's annexation requirements, if LAFCO chooses VCMWD, as the service provider.

I-8 This comment expresses the viewpoint of the VCMWD with regard to the location and configuration of the wastewater treatment plant as permanent, regional facility. Please see responses to comments I-9 and I-10.

I-9 The applicant agrees that the Proposed Project should include a design measure to assure the WWTP is located a minimum of 250 feet from any residences. Therefore, in response to this comment, Subchapter 1.2.1, Wastewater Treatment, Table 1-5 and Chapter 8 (MMRP) of the Final EIR have been revised to reflect this condition.

I-10 In response to this and other comments received during public review, the County facilitated the preparation of the County of San Diego Fallbrook Projects-Feasibility Study dated October 19, 2010 ("Feasibility Study"). The Feasibility Study was prepared to address and meet the anticipated needs of the subregion and to provide a coordinated, planned approach to wastewater service to the region. The Feasibility Study primarily reviewed the service demand for the Proposed Project in addition to that of the adjacent Campus Park West project and other areas in the direct vicinity (see Feasibility Study, Figure 1) within the areas stated by the comment.

The Feasibility Study concluded that the Campus Park West project site would be the most suitable location for a regional WWTP. While the Feasibility Study concluded the Campus Park West site to be the most appropriate for a regional WWTP, if one project is not approved or not built, a regional WWTP would not be necessary or feasible. Therefore, an allowance would be necessary for the installation and construction of an individual project serving WWTP. The applicant has agreed to make the necessary arrangements to ensure that wastewater is collected and treated at a regional facility in order to provide a coordinated planned approach to wastewater service for the region including financial securities of Meadowood's share of the permanent, regional facility.

Section 8.5 - Conceptual Landscape Plan. The document indicates that the Fallbrook Design Guidelines, I-15 Corridor Scenic Preservation Guidelines and the County Landscape Water Conservation Design Manual will be implemented. The document should emphasize that the landscaping plant selections and recommendations will be amenable to use of recycled water. Landscaping plans should maximize the use of recycled water to the greatest extent possible to minimize imported water demand requirements for the project.

Meadowood Water Study (Dexter Wilson)

The water study was reviewed from the standpoint of policy issue for inclusion into the VCMWD service area. A review of specific facilities is not included and would be performed in conjunction with a request for annexation. In light of this, the following comments are presented:

Water Offset Program page 2-12. Meadowood would not be able to fund a portion of a desalination project to provide a water demand offset. This would be contrary to Metropolitan's policy on desalination projects, which provides for desalination projects to replace imported supplies to an area, not increase the total supply.

Annexation requirements to VCMWD would include providing water supplies needed to offset the development net impact plus 0.5 acre foot per year for each equivalent residential unit of development.

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Also conditioned would be a stipulation that if this interim site were to become a permanent facility, the District would need additional land dedicated by Meadowood for future expansion and the interim buffer of 250 feet would become permanent, which would preclude development of many of the lots shown near the current plant site. I-12

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I-11 Comment noted.

1-12 Please refer to response to comment I-9. It is not expected that the interim plant on the Meadowood Project Site would be expanded; therefore, the dedication of additional land would not be necessary.

The method of disposal of wet weather flows from the Meadowood Facility also needs to be clarified. If the method is a combination of storage and percolation, then the storage ponds shown on the current plans may be adequate. However, because of recent court decisions impacting wastewater percolation next to surface waters of the US, percolation may not be possible unless the effluent is treated to surface water standards. If the method is storage alone with lined ponds, then we question whether the ponds shown on the current plan have sufficient capacity to accommodate a full 84 days of flow from a 225,000 gpd plant (18.9 million gallons, or 58 acre feet). At a maximum depth of 15 feet, with 2 to 1 side slopes, the seasonal storage pond would require approximately 6 to 9 acres of land depending on the design (excavated versus above ground compacted levee) and considering space required for freeboard and access roads. It appears that the proposed site for the combined treatment and seasonal storage is less than 2 acres. A clarification and analysis should be provided to indicate that the potential restrictions on percolation, and requirements on treatment standards and wet weather storage, have been considered. I-13

If you have any questions or need any additional information, please contact me.

Sincerely,
Valley Center Municipal Water District

Wally Grabbe, PE
District Engineer

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I-13 The proposed method of disposal of wet weather flows is a combination of storage and wet weather pond storage as indicted on page 2-5 of Appendix N-3. This specific approach has been discussed with the San Diego Regional Water Quality Control Board (RWQCB) which has agreed that the method and location of wet weather pond disposal is generally acceptable, subject to additional comment during permit application and final design. The ponds are proposed to be located such that there will be no connection to surface waters of the U.S. and therefore treatment to surface water standards is not required. This has been confirmed by the San Diego Regional Water Quality Control Board representatives on November 3, 2009. Proposed treatment will meet Basin Plan groundwater objectives and Title 22 criteria for reuse.

The method of disposal of wet weather flows from the Meadowood Facility also needs to be clarified. If the method is a combination of storage and percolation, then the storage ponds shown on the current plans may be adequate. However, because of recent court decisions impacting wastewater percolation next to surface waters of the US, percolation may not be possible unless the effluent is treated to surface water standards. If the method is storage alone with lined ponds, then we question whether the ponds shown on the current plan have sufficient capacity to accommodate a full 84 days of flow from a 225,000 gpd plant (18.9 million gallons, or 58 acre feet). At a maximum depth of 15 feet, with 2 to 1 side slopes, the seasonal storage pond would require approximately 6 to 9 acres of land depending on the design (excavated versus above ground compacted levee) and considering space required for freeboard and access roads. It appears that the proposed site for the combined treatment and seasonal storage is less than 2 acres. A clarification and analysis should be provided to indicate that the potential restrictions on percolation, and requirements on treatment standards and wet weather storage, have been considered. I-14

If you have any questions or need any additional information, please contact me. I-15

Sincerely,
Valley Center Municipal Water District



Wally Grabbe, PE
District Engineer

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I-14 As addressed in response to comment I-3, the method of disposal of wet weather flows is a combination of storage and wet weather pond storage. The San Diego Regional Water Quality Control Board is responsible for issuing the waste discharge permit for the WWTP, which will include review of engineering studies and final design documents to evidence that the treatment and disposal facilities are designed with adequate treatment capabilities and adequate size. Based on discussions with San Diego RWQCB representatives on November 3, 2009, the San Diego RWQCB is in agreement that 84 days of storage is not required because the ponds will be designed to allow wet weather storage as a backup to recycled water use. Preliminary analysis, including a focused geotechnical study, was performed to calculate size requirements for the proposed ponds to continuously handle, through combination of storage (including 2-foot freeboard) and wet weather pond storage, a treated water flow of 225,000 gpd throughout the wet weather season. This analysis was used to prepare the preliminary site layout for wastewater facilities, as shown on Figure 6B of Appendix N-3. If the ponds were not capable of handling, through wet weather pond storage, the entire treatment plant capacity, it would be necessary to provide 84 days of storage.

The proposed ponds will not be connected to surface waters of the U.S.; therefore, treatment to surface water standards is not required per San Diego Regional Water Quality Control Board representatives. Preliminary analysis indicating that the proposed treatment will meet Basin Plan standards is presented on pages 2-4 and 2-5 of Appendix N-3.

I-15 Closing comment is noted; no response is necessary.

Letter J

Bobbi Herdes

From: Campbell, Dennis [Dennis.Campbell@sdcounty.ca.gov]
Sent: Tuesday, September 29, 2009 9:45 AM
To: Blackson, Kristin; Bobbi Herdes; Jimmy.Ayala@pardeehomes.com
Cc: Real, Sami
Subject: FW: Meadowood Project

Hello All: Here is the EHL Comment. I'm somewhat surprised since that organization usually comments on loss of agriculture, as well as biological resources. Thanks, Dennis

Dennis Campbell
Land Use and Environmental Planner
Department of Planning and Land Use
County of San Diego
5201 Ruffin Road, Suite B
San Diego, CA 92123
Ph.: 858.505.6380
Fax: 858.694.3373

From: Dan Silver [mailto:dsilverla@me.com]
Sent: Monday, September 28, 2009 3:17 PM
To: Campbell, Dennis
Subject: Meadowood Project

Sept 28, 2009

Dennis Campbell
Dept Planning and Land Use
5201 Ruffin Rd, Suite B
San Diego, CA 92123

RE: MEADOWOOD PROJECT (GPA 04-002; SP 04-001; REZ 04-004; TM 5354; S 04-005; S 04-006, S04-007; MUP 08-023; LOG NO. 04-02-004; SCH NO. 2004051028)

Dear Mr. Campbell:

The Endangered Habitats League (EHL) appreciates the opportunity to comment on this project. Meadowood is the subject of a hard line agreement with the state and federal wildlife agencies for North County MSCP consistency. DPLU should ensure that all aspects of this agreement are faithfully transposed to the project. Otherwise, determinations of insignificant impact to biological resources under CEQA could not be made. J-1

Sincerely,

Dan Silver, Executive Director
Endangered Habitats League
8424 Santa Monica Blvd., Suite A 592
Los Angeles, CA 90069-4267

213-804-2750
dsilverla@me.com
www.ehleague.org

9/29/2009

J-1 The County agrees that the Proposed Project is the subject of a hard line agreement for the North County MSCP. As such, the County will condition the Proposed Project accordingly to ensure that all aspects of the agreement are "faithfully transposed to the Proposed Project," as requested by the comment.

Letter K

FALLBROOK COMMUNITY PLANNING GROUP
205 Calle Linda
Fallbrook, California 92028
(760) 728-8081

Dennis Campbell DPLU Project Manager
San Diego County
Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego, CA 02123

2 October 2009

Re: The Meadowood Project; GPA 04-002, SP 04-001, REZ 04-004, TM 5354, S04-005, S04-006, S04-007, MUP08-024, review of the Draft Environmental Impact Report (DEIR)

Dennis.

Attached are the comments of the Fallbrook Community Planning Group on the DEIR for the Meadowood Project. } K-1

Sincerely

Jim Russell
Chairman

K-1 Introductory comment is noted. No response is necessary.

COMMENTS ON THE MEADOWOOD DRAFT EIR
Fallbrook Community Planning Group
September 21, 2009

Review of the Draft Environmental Impact Report (DEIR) for the Meadowood Project:
GPA 04-002, SP 04-001, REZ 04-004, TM 5354, S04-005, S04-006, S04-007, MUP08-024
Comments on the proposed DEIR must be received no later than 12 October, 2009 at DPLU, 5201 Ruffin Road, Suite B, San Diego, CA 92123, to Dennis Campbell DPLU Project Manager, 858-694-3737 & Kristin Blackson, Environmental Coordinator, 858-694-3012.

Land Use Committee

Water - No water district has agreed to supply water. K-2
Comment: No water availability for housing or sewage treatment plant.

Non-compliance - The assumption of approval is irrational logic based on inconsistencies with the Fallbrook Community Plan, the SD General Plan, and the I-15 Corridor Design Review standards. In addition, comparison with Rancho Viejo is ludicrous in that this project was begun, altered, and progressed all without FCPG approval. K-3
Comment: There are too many obstacles in numerous areas of each of the above documents.

School - We strenuously object to 12.7 acres being set aside for only 2 years at which time it would revert to housing. In the current economic climate, school construction funding is questionable. K-4
Comment: The 12.7 acre school property (which may not be of adequate size) must remain available with no time frame.

Density - Since the density is based on entire acreage, the number of dwelling units exceeds reasonable limits. Multi-family alley-loaded units are particularly problematic with totally inadequate parking (i.e. 9' x 19' garages and no room to park and unload). In addition, open space in Multi-Family area is totally inadequate. These factors create more problems than they solve. From the beginning of this project, we have expected no more than 650 units to be built on this land. The 844 (or 869 if the school land is considered) units requested far exceed those expectations. *(See page 11, item 2, for May 2, 2005, Motion of the FCPG regarding long-standing density recommendations for the area.)*
Comment: Density is too great and inclusion of alley loaded multi-family housing destroys the "rural Fallbrook" look that is expressly pointed out in the Community Plan, the SDGP, and the DEIR.

Grading - 2.4 million cubic yards of grading is planned to build this project.
Comment: In some areas this leaves 80'-100' slopes which changes the natural terrain dramatically, and violates the Fallbrook Community Plan's prohibition on excessive grading and the SDGP policy LU 6.8) The proposed grading is inconsistent with the rural character of Fallbrook.

Transit node
Comment : The County's concept for a transit node at I15/SR76 is not evident in this plan, which currently includes only a bus stop, or in any of the other plans for this area submitted to date. The EIR should include a detailed description of the proposed Transit Node.

Circulation Committee

Comments:
1. Horse Creek Ranch Road needs to extend as a four lane road to the Stewart Canyon underpass to avoid a bottleneck of traffic caused by a four lane road reduced to two lanes.

K-2 This comment is acknowledged. As described in the EIR, approval of the Proposed Project will be conditioned to ensure that water and sewer services are available to the Proposed Project.

K-3 The County disagrees that preparation of the EIR assumes approval of the Proposed Project. As stated in Subchapter 1.5 of the Final EIR, "This EIR is an informational document which will inform public agency decision-makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects and describe reasonable alternatives to the project." A decision regarding the Proposed Project will ultimately be made by the County Board of Supervisors. Inconsistencies between the Proposed Project and the Fallbrook Community Plan, General Plan, and I-15 Corridor Design Review standards are identified in Subchapters 1.6, and 4.1.4, Proposed Project Inconsistencies with Land Use Plans, Policies, and Regulations (Guideline 1) of the Final EIR.

The County acknowledges the input and advice received by the FCPG throughout the planning process. As with the Proposed Project, the Board of Supervisors was the final decision maker on the Rancho Viejo project.

K-4 The County disagrees with this comment. As set forth in the Subdivision Map Act, Sections 66479 through 66482, a school district has a specific time period, within which it must enter into a binding agreement to acquire the school site. The school district is required to enter into a binding agreement to acquire the reserved school site, at the time of approval of the Final Map, for the Proposed Project. The reserved school site must thereafter be acquired, within two years after completion and acceptance of subdivision improvements. Therefore, if the school district does not acquire the site, within two years after completion and acceptance of subdivision improvements, the site could be used for other purposes (i.e. residential development).

COMMENTS ON THE MEADOWOOD DRAFT EIR
Fallbrook Community Planning Group
September 21, 2009

Review of the Draft Environmental Impact Report (DEIR) for the Meadowood Project:
GPA 04-002, SP 04-001, REZ 04-004, TM 5354, S04-005, S04-006, S04-007, MUP08-024
Comments on the proposed DEIR must be received no later than 12 October, 2009 at DPLU, 5201 Ruffin Road, Suite B, San Diego, CA 92123, to Dennis Campbell DPLU Project Manager, 858-694-3737 & Kristin Blackson, Environmental Coordinator, 858-694-3012.

Land Use Committee

Water - No water district has agreed to supply water.
Comment: No water availability for housing or sewage treatment plant.

Non-compliance - The assumption of approval is irrational logic based on inconsistencies with the Fallbrook Community Plan, the SD General Plan, and the I-15 Corridor Design Review standards. In addition, comparison with Rancho Viejo is ludicrous in that this project was begun, altered, and progressed all without FCPG approval.
Comment: There are too many obstacles in numerous areas of each of the above documents.

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K-5
K-6

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K-5 The density of the Proposed Project was reasonably calculated using the entire acreage within the property boundary, providing an overall density of 2.3 dwelling units per acre, for the entire Project Site. As a Specific Plan, it is appropriate to plan development in this manner, to cluster the development on more suitable terrain and near planned amenities such as parks, schools and transportation facilities. Such planning provides for the preservation of steep slopes, existing agriculture and natural open space.

The proposed product type for the multi-family units has been designed to comply with the County Zoning Ordinance. The County Offstreet Parking Design Manual requires indoor garage parking spaces that are sized to a minimum of 9 feet x 19 feet. The planned garage parking spaces accommodate at least two vehicles, at a minimum size of 20 feet x 20 feet, each. Additionally, all unit types have extra room for trash and recycling bins. Therefore, parking exceeds the dimensions required by the County Offstreet Parking Design Manual.

K-6 The proposed open space within the multi-family area has been designed to comply with the Fallbrook Design Guidelines. The Fallbrook Design Guidelines require at least 200 square feet per dwelling unit of Group Useable Open Space (for Multifamily housing). The Proposed Project proposes would provide 66,647 square feet and 65,340 square feet of Group Useable Open space for Planning Areas 1 and 4, respectively. These acreages exceed that required by the Fallbrook Design Guidelines.

Additionally, the applicant has complied with the requirement to install a children's play area, which exceeds the Fallbrook Design Guidelines requirement of 400 square feet for the first 25 dwelling units and an additional 100 square feet for each 25 dwelling units, thereafter. The site plans propose a 2,374-square foot children's play area, within Planning Area 4 and a 1,000 square foot children's play area, within Planning Area 1.

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K-6
K-7
K-8

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K-6 (cont.)

Further, the Fallbrook Design Guidelines require the provision of at least 100 square feet of Private Useable Open Space, per dwelling unit. The Proposed Project proposes 800 square feet per each individual unit within Planning Area 1. Private Useable Open Space within Planning Area 4 is as follows: Unit 1 - 266 square feet; Unit 2 - 266 square feet; and Unit 3 - 129 square feet. These planned areas meet or exceed the required amount for each dwelling unit.

Therefore, the Proposed Project's Open Space square footage conforms to all aspects of the Fallbrook Design Guidelines, and cannot be considered inadequate.

K-7 This comment is acknowledged. The EIR includes an alternative in Subchapter 5.7, of the Final EIR that closely matches the previous requests from the FCPG (General Plan Update Referral Map Alternative). The Referral Map Alternative would include a total of 536 residential units consisting of 263 single-family units and 273 residential units. Impacts of this alternative are compared to the impacts of the Proposed Project. An issue to be resolved, by the decision makers, is whether to implement this project alternative, in light of its associated impacts.

K-8 The Project Site is not located within "rural Fallbrook," but rather physically separated from the town center and any portion of the village areas. As addressed in Subchapter 4.1.4, Proposed Project Inconsistencies with Land Use Plans, Policies, and Regulations (Guideline 1), of the Final EIR and detailed in Appendix 1 of the Meadowood Specific Plan/General Plan Amendment, the Proposed Project complies with the Fallbrook Community Plan, Fallbrook Design Guidelines and I-15 Corridor Subregional Plan and Guidelines. The County acknowledges that the Project Site and surrounding area are currently open space and undeveloped. For this reason, Subchapter 2.1 of the Final EIR concludes that there would be a significant change in the visual character associated with cumulative development in this area.

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Circulation Committee

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1. Horse Creek Ranch Road needs to extend as a four lane road to the Stewart Canyon underpass to avoid a bottleneck of traffic caused by a four lane road reduced to two lanes.

K-9 Landform alteration and grading are discussed in Subchapter 2.1 of the EIR. Subchapter 2.1.3, Change in Visual Pattern or Character (Guideline 1) and Change in Visual Environment of Scenic Highway or Scenic Vista (Guideline 3), of the Final EIR have been revised to clarify that manufactured slopes would be up to 80 feet in height. The Proposed Project conforms to all applicable policies of the Fallbrook Community Plan Residential Goals. Specifically, Policy 2, which requires the use of open space, architecture and building materials that will promote and maintain the natural environment, as well as create a village feel; Policy 3, disruption of natural terrain and Community Beautification and Design Goal; and Policy 8 requiring wise grading practices. All are detailed in Appendix 1 of the Specific Plan/General Plan Amendment. Additionally, all relevant Community Beautification and Design goals are addressed in Subchapter 2.1.3, Conformance with Visual Resources Regulations (Guideline 6), of the Final EIR. While grading would result in the creation of manufactured slopes, implementation of the Community Design Guidelines, found within the Meadowood Specific Plan would require that the manufactured slopes be graded to follow existing contours which would soften the Proposed Project's appearance.

K-10 A viable transit node requires multiple transit lines, a place where transportation modes are changed (i.e., car to rail, car to bus, bus to rail, etc.), a parking lot, and a park-and-ride location for all of these elements. The Proposed Project is not adjacent to the I-15/SR-76 interchange where a park-and-ride lot would be best located and where multiple transit lines could meet. Placing a park-and-ride lot away from the I-15/SR-76 interchange would not meet these criteria.

The North County Transit District (NCTD) has indicated that it currently does not operate any fixed route bus services near the Project Site and has no current plans or funding to operate transit service in the foreseeable future. As requested by NCTD, the Proposed Project includes bus turnouts, along Horse Ranch Creek Road, to serve the Proposed Project and the adjacent

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K-10 (cont.)

projects. Notwithstanding the current status of Transit Node planning, Objective CE-3.3 (page 58) of the SPA conveys the Proposed Project's requirement to contribute a payment that would represent a fair share contribution, in conjunction with all developments, at this Interchange, toward design and construction of a future Transit Node. Table 1-5, Subchapter 8 (MMRP) and Subchapter 2.2.3, Global Climate Change (Guideline 5), of the Final EIR have been revised to show this as a project design measure requiring that, as a condition of approval, the Proposed Project will participate, along with the other projects in the vicinity, in the contribution of funds for the acquisition, design, and construction of a future Transit Node.

K-11 As proposed, Horse Ranch Creek Road would transition from four lanes to two lanes at the intersection with Pala Mesa Heights Drive (also identified as Baltimore Oriole Road by the Campus Park project) because the traffic volumes would not warrant a four-lane roadway north of Pala Mesa Heights Drive. As shown in the TIS on Figures 18a (segment) and 18b (intersection) for existing plus project conditions and on Figures 26a (segment) and 26b (intersection) for horizon year plus project conditions, when traveling north on Horse Ranch Creek Road, enough traffic would turn off at the intersection of Pala Mesa Heights Drive/Baltimore Oriole Road to only require two lanes north of that intersection.

The segment operations with acceptable LOS with only two lanes on Horse Ranch Creek Road north of Pala Mesa Heights Drive (aka Baltimore Oriole Road) are documented in the TIS within Table 15 for existing plus project conditions and Table 32 for horizon year plus project conditions.

2. An interchange is needed at Stewart Canyon, especially since there will be a great deal of traffic attending the Palomar College campus from Riverside. An e-mail was sent by Sid Morel to Supervisor Bill Horn regarding this need. *(Also see long-standing request for this interchange, page 11, item 6: 2005 Motion of the FCPG.)* K-12

3. The project school is improperly located too close to the Bonsall School District boundary. It should be closer to Highway 76 near Lake Rancho Viejo to accommodate the large number of students south of Highway 76. K-13

4. Parking for the entire project is inadequate. Cars cannot be parked in front of garages without spilling into the alleyways which will encroach on fire truck access. K-14

5. The definition of a transit node is too vague. The draft EIR only addresses a bus turn out and does not address park-and-ride or transfer stations which will be needed for this area. K-15

6. The Traffic Impact Fees need to be applied to the areas that are affected by the project paying the fees. K-16

Public Facilities Committee

Water

General Comments: K-17

Water and Wastewater issues need to be considered for ALL projects in the I-15/76 area before selecting any single project for approval.

The Project Proponent must demonstrate that adequate water is available on a sustainable basis and that project approval does not have a negative impact on existing water users, both for imported supplies and current groundwater supply.

DEIR Conclusions about water:

The DEIR's following conclusions about water are not supported by the evidence submitted:

"MET's reliability assessment showed that MET can maintain reliable water supplies to meet projected demand through 2030." (4-42)

MET can "meet demands" based on latest data from April, 2009. (4-46)

"There is sufficient water supply to service the Proposed Project and the existing and other certain planned projects in the SDCWA area." (4-55)

Comment: All water conclusions in the DEIR are based on incomplete and outdated data. The analyses do not account for the effects of the third year of drought, the delta smelt decision or reduced supplies from the Colorado River.

The only reference to these issues which have dramatically impacted water supply is an acknowledgement of "unforeseen challenges" - p. 4-51 - and a suggestion that "the EIR must explain, however, given these factors, that water is still available" (4-51)

Comment: Water supply data needs to be updated throughout the EIR and all conclusions about current water availability which are based on pre-2008 data should be deleted.

Comment: The proposals for Offset programs (4-50) need details and evidence.

Grey Water Systems

Comment: Meadowood should explore the feasibility of permits for individual dwelling units to install "grey water" recovery systems for irrigation.

Appendix O-1 (May 2009)

Water Availability - Appendix O-1, p. 3-19. "The Water Authority currently operates the treated water pipelines in both aqueducts at or near their capacity during the summer months."

Comment: Since the two aqueducts serving the proposed project area are already at capacity in summer months, how will Meadowood provide supplies during the summer? The EIR needs to address this additional restriction on the availability of water.

Irrigation Systems - will be owned and managed by the Meadowood HOA, and a Recycled Water Site Supervisor will be required who answers to the HOA. (2-9)

K-12 The study area roadways around the Proposed Project and around Stewart Canyon Road are calculated to operate at acceptable levels of service in the horizon year with the current roadway classifications without a Stewart Canyon/I-15 interchange. The cumulative analysis included the Palomar Community College North Education Center, Campus Park, and Campus Park West projects. The cumulative analysis also included all other known projects identified in the General Plan Update Modified Series 10 Model. Like the General Plan Update Modified Series 10 Model, the Proposed Project's cumulative analysis did not identify significant impacts necessitating the construction of this interchange. In addition, there are no current plans by Caltrans for the construction of a new interchange at 1-15/Stewart Canyon Road.

K-13 The County acknowledges this comment and concurs that a school location closer to Lake Rancho Viejo may be more accessible to a larger number of students. However, the Proposed Project has set aside a building site for a school in consultation with the School District. Whether the School District chooses to pursue the construction of a school on this site would be a School District decision that is independent of the approvals being sought for the Proposed Project.

K-14 Please refer to response to comment K-5. Additionally, to avoid potential encroachment into fire access lanes, these lanes will be delineated by striping/curb painting.

K-15 Please refer to response to comment K-10.

K-16 The County concurs with this comment. The Proposed Project is required to contribute fees pursuant to the Transportation Impact Fee (TIF) program. The Proposed Project's contribution to the TIF is discussed in Subchapter 2.3.5 of the Final EIR.

K-17 Please see responses to comments G-26 and G-27.

2. An interchange is needed at Stewart Canyon, especially since there will be a great deal of traffic attending the Palomar College campus from Riverside. An e-mail was sent by Sid Morel to Supervisor Bill Horn regarding this need. *(Also see long-standing request for this interchange, page 11, item 6: 2005 Motion of the FCPG.)*
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6. The Traffic Impact Fees need to be applied to the areas that are affected by the project paying the fees.

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Water and Wastewater issues need to be considered for ALL projects in the I-15/76 area before selecting any single project for approval.

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Comment: All water conclusions in the DEIR are based on incomplete and outdated data. The analyses do not account for the effects of the third year of drought, the delta smelt decision or reduced supplies from the Colorado River. K-19

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Comment: Water supply data needs to be updated throughout the EIR and all conclusions about current water availability which are based on pre-2008 data should be deleted. K-20

Comment: The proposals for Offset programs (4-50) need details and evidence. K-21

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Irrigation Systems - will be owned and managed by the Meadowood HOA, and a Recycled Water Site Supervisor will be required who answers to the HOA. (2-9)

K-18 Implementation of the Proposed Project will not create a negative impact on existing water users, for either imported water or groundwater. For a detailed response regarding the adequacy of imported water supply, please refer to the response to comment Q-2. With respect to groundwater supply, Subchapters 4.2.1, 4.2.2, 4.2.3, 4.2.4, Groundwater levels (Guideline 7) and 4.2.6 of the Final EIR have been revised to clarify that the Proposed Project will have a less than significant impact on groundwater resources.

K-19 The County disagrees that the water supply conclusions quoted in the comment are "based on incomplete and outdated data." Please refer to response to comment Q-2, which addresses that although METs water supply has not been developed as planned due to drought conditions, the delta smelt decision and reduced supply from the Colorado River, that sufficient water supply exists to serve the Proposed Project and other existing planned development in the area.

K-20 At the time that the EIR was released for public review, the water supply information was based on the most current documents and water supply information available. In response to this comment and comments received from the SDCWA (Letter Q), both the WSA and EIR have been revised to include the most current water supply data, including implementation of a Drought Management Plan (DMP) and Water Supply Allocation Plans (WSAPs). However, this information does not change the conclusion that there is sufficient water available to serve the Proposed Project. Please refer to response to comment Q-2.

K-21 Please refer to response to comment Q-7 detailing the revisions to the EIR, clarifying the Proposed Project's participation in off-set programs, to assure net-zero demand on SDCWA water supplies. In summary, the specific offset program(s) will be identified during the annexation proceedings and the SOI update process, which will occur after approval of the Proposed Project. Implementation of the offset project shall be a condition of annexation into the SDCWA and MWD prior to the delivery of water.

2. An interchange is needed at Stewart Canyon, especially since there will be a great deal of traffic attending the Palomar College campus from Riverside. An e-mail was sent by Sid Morel to Supervisor Bill Horn regarding this need. *(Also see long-standing request for this interchange, page 11, item 6: 2005 Motion of the FCPG.)*
3. The project school is improperly located too close to the Bonsall School District boundary. It should be closer to Highway 76 near Lake Rancho Viejo to accommodate the large number of students south of Highway 76.
4. Parking for the entire project is inadequate. Cars cannot be parked in front of garages without spilling into the alleyways which will encroach on fire truck access.
5. The definition of a transit node is too vague. The draft EIR only addresses a bus turn out and does not address park-and-ride or transfer stations which will be needed for this area.
6. The Traffic Impact Fees need to be applied to the areas that are affected by the project paying the fees.

Public Facilities Committee

Water

General Comments:

Water and Wastewater issues need to be considered for ALL projects in the I-15/76 area before selecting any single project for approval.

The Project Proponent must demonstrate that adequate water is available on a sustainable basis and that project approval does not have a negative impact on existing water users, both for imported supplies and current groundwater supply.

DEIR Conclusions about water:

The DEIR's following conclusions about water are not supported by the evidence submitted:

"MET's reliability assessment showed that MET can maintain reliable water supplies to meet projected demand through 2030." (4-42)

MET can "meet demands" based on latest data from April, 2009. (4-46)

"There is sufficient water supply to service the Proposed Project and the existing and other certain planned projects in the SDCWA area." (4-55)

Comment: All water conclusions in the DEIR are based on incomplete and outdated data. The analyses do not account for the effects of the third year of drought, the delta smelt decision or reduced supplies from the Colorado River.

The only reference to these issues which have dramatically impacted water supply is an acknowledgement of "unforeseen challenges" - p. 4-51 - and a suggestion that "the EIR must explain, however, given these factors, that water is still available" (4-51)

Comment: Water supply data needs to be updated throughout the EIR and all conclusions about current water availability which are based on pre-2008 data should be deleted.

Comment: The proposals for Offset programs (4-50) need details and evidence.

Grey Water Systems

Comment: Meadowood should explore the feasibility of permits for individual dwelling units to install "grey water" recovery systems for irrigation. } K-22

Appendix O-1 (May 2009)

Water Availability - Appendix O-1, p. 3-19. "The Water Authority currently operates the treated water pipelines in both aqueducts at or near their capacity during the summer months."

Comment: Since the two aqueducts serving the proposed project area are already at capacity in summer months, how will Meadowood provide supplies during the summer? The EIR needs to address this additional restriction on the availability of water. } K-23

Irrigation Systems - will be owned and managed by the Meadowood HOA, and a Recycled Water Site Supervisor will be required who answers to the HOA. (2-9) } K-24

K-22 The Proposed Project does not currently include gray water systems for the individual dwelling units. Utilization of grey water recovery systems on individual lots would be up to each individual homeowner. The project would not prevent those systems from being installed.

K-23 Water supplies will be provided during the summer months in the same manner as year-round. The SDCWA treated water pipelines, in both aqueducts, supply the SDCWA member agencies water demands. The Proposed Project will receive its potable water from these pipelines, via the LAFCO-selected Municipal Water District. So as not to increase the member agencies demand for SDCWA supplies, the Proposed Project will reduce existing demands, in an amount equal to what the Proposed Project requires. Therefore, with no net impact on SDCWA supplies, there will be no net impact on the capacity of the treated water pipelines.

Although there will be no net impact to the capacity of the SDCWA aqueducts as a whole, the SDCWA may favor a new connection to one treated water pipeline over another based on water delivery procedures in place at that time. The EIR provides connection alternatives to both aqueducts.

K-24 Comment is noted. As stated in the Water Study (Appendix N – 1, page 2-9), the recycled water supply and distribution facility will be owned and managed by the municipal water district selected to provide recycled water services. For HOA-owned parcels that require irrigation, the irrigation systems will be owned and managed by the HOA. The one exception to this statement is the water meters owned by the municipal water district which are used to monitor recycled water usage. As pointed out in the Water Study, it is typical for the municipal water district that is providing recycled water to end-users, to require each recycled water customer to obtain a recycled water user permit. Additionally, the municipal water district requires minimum criteria to be satisfied, on an ongoing basis, for the safe and efficient use of the recycled water.

Comment: Details should be provided to explain the operations and oversight of this system, not only for the technical aspects but also for financial accountability. The EIR should consider the feasibility of requiring that the Common HOA Areas be managed by an independent firm since HOA's do not always have adequate and sustainable self-enforcement. K-24

Water OFFSET programs (Appendix O-1, pages 2-11 & 12) - The Project Proposal bases its offset program, in part, on available groundwater supplies.
Comment: The groundwater supply figures are based on estimates of likely historical usage (no actual records were kept). There is no hydrological data to support these figures. A water study should be conducted which includes a thorough hydrological assessment of the ground water supply - its quantity, quality, and an assessment of how the future supply will be affected by both environmental influences and the extent of development proposed for the area. K-25

Comment: The estimated 421 AFY in excess groundwater supplies (used as their offset) is not potable water. What is the source of the project's potable water supplies? And what is the mechanism for exchanging their offset groundwater supplies for potable water? K-26

The list of possible offset proposals is generalized and unconvincing, (develop new sources, recycled water outside project, desalinated water, and groundwater).
Comment: Details should be added to specify how these offset proposals will be developed and what their impact will be. For example: Where are the new sources that can be developed? Since there is only one proposed desalination plant in the San Diego County area (many years in the making), how could this project access desalinated water? K-27

Contradictory Information: (Appendix L, Chapter XII, p. 20) - "The Proposed Project does not propose groundwater usage except during the drier months as a secondary source of irrigation…."
Comment: Project has already allocated all the excess groundwater for their Offset.

Meadowood Water Study- Appendix O-2 (June 2009)
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They reference the New April 2008 Five Year Supply Plan which "identifies new supplies for MET to consider" and "demonstrates" that firm demands on MET can be met.
They conclude that "Independent of the LAFCO determination of the ultimate water service provider, an adequate supply of water is available from the Water Authority to serve the Meadowood Project's demands." (p. 17)
Comment: This Information is completely misleading and needs to be based on current data.

Wastewater Treatment Plant
Comment: Ensure that the Project's approval is contingent on the availability of a wastewater treatment and disposal sewer service commitment prior to land preparation.

Comment: The Wastewater Treatment Plant is too close to homes. The EIR needs details on provisions that will protect homeowners from noise, odors, air pollution, and visual impacts with special attention to the open treatment basins detailed in project blueprints. The Project should consider re-locating the Wastewater Treatment Plant to an industrial area far from any residential dwellings.

Landfill - The discussion on landfills and solid waste disposal assumes that Gregory Canyon Landfill will be operational, (p. 4-26).
Comment: The EIR should consider other viable alternatives if Gregory Canyon is not available.

K-25 Subchapter 4.2.4, Groundwater levels (Guideline 7) of the Final EIR, has been revised to clarify that the Proposed Project would not use groundwater as part of an imported water offset program. Groundwater may, however, be used on-site for irrigation purposes to supplement recycled water use during drier and hotter periods of the year.

Existing on-site agricultural groundwater demand, at the site, is estimated to be approximately 619 acre-feet per year. The Proposed Project will require approximately 329 acre-feet per year of non-potable water for outdoor irrigation at the school, park, HOA areas, rights-of-way, and retained groves. Recycled water deliveries from the proposed wastewater treatment plant would provide approximately 189 acre-feet per year towards the demand, and approximately 140 acre-feet per year of on-site groundwater would supply the remainder. The proposed approximately 140 acre-feet per year groundwater demand, at the Project Site, would result in a reduction of approximately 478 acre-feet per year in the overall use of groundwater, as compared to existing conditions. Groundwater use would be managed by the municipal water district. Also, please see response to comment H-5 for additional information.

K-26 Please refer to response to comment K-25.

K-27 As detailed in response to comment Q-7, Subchapter 4.6.4, Water Supply, Table 1-5 and Subchapter 8 (MMRP) of the Final EIR has been revised to reflect that the Proposed Project will be conditioned to provide a net-zero demand on SDCWA supplies, regardless of the existence of off-set programs. The EIR identifies examples of off-set programs and projects that the Proposed Project could potentially implement.

The comment that there is only one proposed desalination plant in San Diego County is incorrect. There are two desalination plants proposed for San Diego County (Oceanside and Sweetwater), which could provide desalinated water to the Proposed Project.

Comment: Details should be provided to explain the operations and oversight of this system, not only for the technical aspects but also for financial accountability. The EIR should consider the feasibility of requiring that the Common HOA Areas be managed by an independent firm since HOA's do not always have adequate and sustainable self-enforcement.

Water OFFSET programs (Appendix O-1, pages 2-11 & 12) - The Project Proposal bases its offset program, in part, on available groundwater supplies.
Comment: The groundwater supply figures are based on estimates of likely historical usage (no actual records were kept). There is no hydrological data to support these figures. A water study should be conducted which includes a thorough hydrological assessment of the ground water supply - its quantity, quality, and an assessment of how the future supply will be affected by both environmental influences and the extent of development proposed for the area.

Comment: The estimated 421 AFY in excess groundwater supplies (used as their offset) is not potable water. What is the source of the project's potable water supplies? And what is the mechanism for exchanging their offset groundwater supplies for potable water?

The list of possible offset proposals is generalized and unconvincing, (develop new sources, recycled water outside project, desalinated water, and groundwater).
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Comment: Project has already allocated all the excess groundwater for their Offset. } K-28

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Comment: This Information is completely misleading and needs to be based on current data. } K-29

Wastewater Treatment Plant
Comment: Ensure that the Project's approval is contingent on the availability of a wastewater treatment and disposal sewer service commitment prior to land preparation. } K-30

Comment: The Wastewater Treatment Plant is too close to homes. The EIR needs details on provisions that will protect homeowners from noise, odors, air pollution, and visual impacts with special attention to the open treatment basins detailed in project blueprints. The Project should consider re-locating the Wastewater Treatment Plant to an industrial area far from any residential dwellings. } K-31

Landfill - The discussion on landfills and solid waste disposal assumes that Gregory Canyon Landfill will be operational, (p. 4-26).
Comment: The EIR should consider other viable alternatives if Gregory Canyon is not available.

K-28 Appendix K correctly states the Proposed Project's planned use for groundwater. Groundwater will be used in drier periods to supplement recycled water for on-site irrigation purposes. This comment confuses the Proposed Project's intent to "offset" (make up for) potable water use by using non-potable, groundwater for irrigation purposes, with the Proposed Project's condition to participate in off-set programs (as referenced in response to comment K-5 and detailed in response to comment Q-7) as a means to reduce overall water demand.

K-29 Please refer to response to comment K-20.

K-30 This comment is acknowledged. Table 1-5, Subchapter 8 (MMRP) and Subchapter 1.2.1, Water/Wastewater Services, of the Final EIR have been revised to reflect that approval of the Proposed Project will be conditioned to ensure that sewer services are available prior to construction.

K-31 The proximity of the WWTP to the homes north of SR-76 is acknowledged. Due to comments received during public review of the Proposed Project, the applicant has agreed to include design measures to assure the WWTP is located a minimum of 250 feet from any residences. Subchapter 1.2.1, Water/Wastewater Services, Table 1-5 and Subchapter 8 (MMRP) of the Final EIR have been revised to reflect this condition.

Furthermore, the Proposed Project has been designed to incorporate features that minimize the potential impacts and protect homeowners from noise, air pollution, and visual impacts associated with the WWTP, including the open treatment basins. Regarding potential impacts to noise, this analysis can be found in Subchapter 3.4.3, Stationary Noise (Guideline 2), Wastewater Treatment Plant, of the Final EIR. Noise associated with

Comment: Details should be provided to explain the operations and oversight of this system, not only for the technical aspects but also for financial accountability. The EIR should consider the feasibility of requiring that the Common HOA Areas be managed by an independent firm since HOA's do not always have adequate and sustainable self-enforcement.

Water OFFSET programs (Appendix O-1, pages 2-11 & 12) - The Project Proposal bases its offset program, in part, on available groundwater supplies.
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Comment: The estimated 421 AFY in excess groundwater supplies (used as their offset) is not potable water. What is the source of the project's potable water supplies? And what is the mechanism for exchanging their offset groundwater supplies for potable water?

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K-31 (cont.)

operation of the on-site WWTP was analyzed to ensure that noise levels would not exceed the applicable County Noise Ordinance standards of (50 dB(A) L_{eq} from 7:00 A.M. to 10:00 P.M. and 45 dB(A) L_{eq} from 10:00 P.M. to 7:00 A.M.). The analysis in the EIR is based on the assumption that the closest on-site residential property line would be located approximately 95 feet north of the center of the WWTP building, concluding that, should the on-site WWTP option be constructed, the noise level at the residential property line due to the WWTP would be 64 dB(A) L_{eq}. Please refer to Subchapter 3.4.3, Stationary Noise (Guideline 2), Wastewater Treatment Plant of the Final EIR. Based on the Noise Ordinance, this impact is considered significant; however, Mitigation Measure M-N-4 requires the construction of a 10-foot noise barrier south of the residential area reducing noise to a level that is less than significant. These measures assure that homeowners would be protected from noise related impacts associated with the WWTP.

As stated above, the applicant has agreed to increase the distance between the WWTP and the adjacent residential area to 250 feet. The current analysis in the EIR represents a worst case scenario. The property owners at residences located 250 feet away from the WWTP would actually experience less day time noise; however, the proposed mitigation would still be required due to night time noise levels. No changes to the EIR are required.

Regarding potential impacts to odors, this analysis can be found in Subchapter 2.2.3, Air Quality Standards (Guideline 2), On-Site Operation and Area Source Emissions, of the Final EIR. As stated therein, odor control measures would be provided to reduce any potential impacts to the surrounding areas. Specifically, the treatment building, equalization basins, and solids dewatering facilities would be enclosed and the air would be conveyed to either wet scrubbers or activated carbon odor control units. Additionally, as stated in Subchapter 2.2.3, Odors (Guideline 4), of the Final EIR, "Pursuant to Section 6300 of the

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K-31 (cont.)

County of San Diego Zoning Ordinance odor control units would be designed to treat odorous air from within treatment structures, so as to not emit matter causing unpleasant odors, which are perceptible by the average person at or beyond the lot line of the WWTP. The WWTP would be located within relative proximity to residential areas. Therefore, odor treatment units would be required to provide a dilution ratio of one volume of odorous air to eight volumes of clean air. The treatment structures for which odor control would be provided are the inlet pump station, preliminary treatment building, equalization basin, and solids handling building. Objectionable levels of odors are not expected within the other treatment structures. Wastewater treatment processes such as aeration and disinfection basins that are not enclosed within buildings would be covered."

These measures assure that homeowners would be protected from odor-related impacts associated with the WWTP.

Subchapter 2.2.3, Air Quality Standards (Guideline 2), On-Site Operation and Area Source Emissions of the Final EIR has been revised to reflect that the WWTP is not expected to be a source of air pollutant emissions. The WWTP is expected to be run on electricity with diesel generators standing-by, only in the case of an emergency. Therefore, homeowners will be protected from air pollution-related impacts associated with the WWTP.

Regarding potential visual impacts, this analysis can be found in Subchapter 2.1.3, Change in Visual Pattern or Character (Guideline 1), Public Roadways, of the Final EIR. The homeowners, within the residential area located 250 feet from the WWTP, are separated by trees planted on the slopes and landscape plantings, as well as a sound wall. This provides a visual buffer and homeowners will be protected from visual-related impacts associated with the WWTP.

Comment: Details should be provided to explain the operations and oversight of this system, not only for the technical aspects but also for financial accountability. The EIR should consider the feasibility of requiring that the Common HOA Areas be managed by an independent firm since HOA's do not always have adequate and sustainable self-enforcement.

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Comment: The EIR should consider other viable alternatives if Gregory Canyon is not available. } K-32

K-31 (cont.)

As detailed in the Sewer Study, located in Appendix N-3 of the EIR, the applicant has considered two alternative locations for construction of the WWTP, in addition to the preferred site. Alternative A places the WWTP and wet weather ponds off-site (Sewer Study Figures 5A and 6A). This alternative would require additional property acquisition, possible floodplain protection, and construction of a treated water forcemain across the San Luis Rey River. Alternative C places the WWTP on-site with the associated wet weather ponds located off-site (Sewer Study, Figure 5C). This alternative would require at least one acre to support the wet weather ponds. The proposed option provides for on-site placement of all necessary facilities, within a compact area, already owned by and accessible to the applicant. Because design features are included in the Proposed Project to assure that all adjacent homeowners will be protected from potential impacts, from their proximity to the WWTP, it is the preferred option.

K-32 The EIR concludes that there is adequate capacity at area landfills to serve the Proposed Project and would not rely on the Gregory Canyon landfill. As stated in Subchapter 4.3.1, Existing Conditions/Regulations, Solid Waste, of the Final EIR, "Of the existing sites, five have remaining capacity. These are Miramar, Ramona, Sycamore, Otay and Borrego Landfills." Activation of the Gregory Canyon Landfill would serve to augment the capacity of area landfills in meeting the solid waste management needs of the Proposed Project.

School - Project Proposal describes that 145 students in FUESD will be assigned to Fallbrook Street School and Live Oak Elem. (4-27) and 191 students in the Bonsall District would be served by a new school. K-33
Comment: Inconsistent numbers of students are referred to in various parts of the DEIR, as well as inconsistent numbers of dwelling units to determine the number of students.
Comment: If no school is built, Meadowood proposes 42 additional DUs after two years, but the school acreage should be undeveloped and held for the construction of a future school. K-34
Comment: Has proper consideration been given to the increase in high school students generated by the Meadowood project, given that the Fallbrook High School is already at over-capacity? K-35

Law Enforcement - The County's acceptable response time for priority calls is 8 minutes, yet the 2005 response time for the Meadowood area was 11.9 minutes. (4-28) K-36
Comment: How can this discrepancy result in a "less than significant impact?"

The new Sheriff's sub-station at I-15 is not scheduled to be available until at least 2019.
Comment: This further reduces the likelihood of adequate service to the proposed area. What mitigations are proposed?

Energy - Insufficient discussion of energy in Chapter 8 -Mitigation
Comment: The EIR needs to address the possibilities for solar energy, photovoltaic, grey water recovery, and renewable energy, and explore emerging energy technologies such as regional biomass/biogas and dwelling unit solar energy generation.

Backwards Approval Process - Appendix L - General Plan Compliance p. 19: "Supervisors approve project first, then LAFCO will assign water and sewer district."
Comment: Why aren't water and sewer issues resolved first as called for in all County Planning Regulations?

Design Review Committee

General Comments: DEIR has Numerous times stated that this project is inconsistent with regional and general plans. We agree. Changing and/or amending Land Use and Zoning elements or designations, as well as the General Plan and Fallbrook's Community Plan will not mitigate any of the significant impacts that have been identified. It would just allow the project to be built.

The Meadowood Specific Plan Amendment and Design process would not change the significant adverse effects that this project would have on community character, visual environment, and physical changes that would degrade this area. This DEIR is deficient and does not demonstrate in any way how these significant negative impacts would be mitigated

Applicant should comply with their goals to create a project that is compatible with the surrounding area. DIER as presented does not accomplish this.

Community Design - 1.2.1 Project Component Parts Page 8 & 10
Comment: The Fallbrook Community Guidelines and the permitting process should be included in this section.

Grading and Construction
Comment: Cut and fill slopes are inconsistently listed. Some sections state a max of 80 ft. others 100 ft. Regardless, this is an enormous amount of grading and will forever change the topography of the land. Changing the Land Use designation to allow these slopes, will not mitigate the changes in topography.

Land Use Planning Changes - In order to develop the Proposed Project, a number of land use and zone changes to the General Plan and the Fallbrook Community Plan are required.

K-33 The County agrees with the comment. Subchapters 4.3.1, Existing Conditions and 4.3.3, Schools, of the Final EIR have been revised to provide consistency regarding the number of students that would be anticipated to attend schools in each of the affected districts.

K-34 Please refer to response to comment K-4.

K-35 Subchapter 4.3.1 acknowledges that current enrollment of Fallbrook Union High School is at capacity. Because the Proposed Project will introduce 132 additional students to the school, the Proposed Project would be conditioned to pay applicable school fees.

K-36 The County acknowledges that page 69 of the Meadowood Specific Plan/General Plan Amendment, indicates that the 2005 response time to the Project Site was 11.9 minutes. However, as noted in the Final EIR in Subchapter 4.3.3, Law Enforcement, the Proposed Project has received a letter from the Sheriff's Department dated June 5, 2006 indicating that the Proposed Project would not impact response time or law enforcement services. The letter also indicates that the Proposed Project, in combination with the surrounding cumulative projects, would require the need for a new Sheriff's station in the 1-15 corridor, south of the SR-76, possibly to be located within the adjacent Campus Park West project site. Therefore, because the County Sheriff's Department has indicated that its long range plans include locating a substation in this location, in order to reduce response time, the EIR concludes that impacts are less than significant.

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Comment: Inconsistent numbers of students are referred to in various parts of the DEIR, as well as inconsistent numbers of dwelling units to determine the number of students.
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Comment: The EIR needs to address the possibilities for solar energy, photovoltaic, grey water recovery, and renewable energy, and explore emerging energy technologies such as regional biomass/biogas and dwelling unit solar energy generation. K-38

Backwards Approval Process - Appendix L - General Plan Compliance p. 19: "Supervisors approve project first, then LAFCO will assign water and sewer district."
Comment: Why aren't water and sewer issues resolved first as called for in all County Planning Regulations?

Design Review Committee

General Comments: DEIR has Numerous times stated that this project is inconsistent with regional and general plans. We agree. Changing and/or amending Land Use and Zoning elements or designations, as well as the General Plan and Fallbrook's Community Plan will not mitigate any of the significant impacts that have been identified. It would just allow the project to be built.

The Meadowood Specific Plan Amendment and Design process would not change the significant adverse effects that this project would have on community character, visual environment, and physical changes that would degrade this area. This DEIR is deficient and does not demonstrate in any way how these significant negative impacts would be mitigated

Applicant should comply with their goals to create a project that is compatible with the surrounding area. DIER as presented does not accomplish this.

Community Design - 1.2.1 Project Component Parts Page 8 & 10
Comment: The Fallbrook Community Guidelines and the permitting process should be included in this section.

Grading and Construction
Comment: Cut and fill slopes are inconsistently listed. Some sections state a max of 80 ft. others 100 ft. Regardless, this is an enormous amount of grading and will forever change the topography of the land. Changing the Land Use designation to allow these slopes, will not mitigate the changes in topography.

Land Use Planning Changes - In order to develop the Proposed Project, a number of land use and zone changes to the General Plan and the Fallbrook Community Plan are required.

K-37 The County acknowledges that construction of a new station along the I-15 corridor, as identified in the Sheriff's Department's Law Enforcement Master Plan (2005), is listed as a Priority 4 project with an estimated occupancy date of 2019. The four cumulative projects, which necessitate the need for the new station, are not anticipated to be built-out, by the year 2019. For example, both the Campus Park and Campus Park West are still under review by DPLU. The County will ensure that planning for the station will occur concurrently with approval of these other projects. Therefore, no mitigation is required.

K-38 Subchapter 8 of the EIR, referenced as the MMRP, provides the Proposed Project's list of mitigation measures and environmental design considerations. The Proposed Project complies with current County policies and guidelines regarding residential energy efficiency and conservation. The County acknowledges the numerous possibilities for alternative energy sources, all appropriate to reduce non-renewable energy use. As detailed throughout Subchapter 2.2, energy efficiency design measures are incorporated into the Proposed Project.

As detailed in Subchapter 2.2.3, Global Climate Change (Guideline 5), Operational Emissions (Transportation), of the Final EIR, measures to reduce transportation/vehicle emissions include the construction of bike lanes and wide trails and pathways throughout the Proposed Project, to promote non-motorized transportation. Additionally, the Proposed Project will contribute funds for the acquisition, design, and construction of a future Transit Node.

Energy Efficiency Measures, detailed in Subchapter 2.2.3, Global Climate Change (Guideline 5), Operational Emissions (Energy Use), of the Final EIR, include building homes that comply with the U.S. Environmental Protection Agency's Energy Star criteria, which results in 30 percent more energy efficient than required by Title 24, creation of outdoor and indoor shaded areas to reduce energy use, avoidance of large parking lots and use of plantings throughout the site, and minimization of site lighting to that necessary for security.

School - Project Proposal describes that 145 students in FUESD will be assigned to Fallbrook Street School and Live Oak Elem. (4-27) and 191 students in the Bonsall District would be served by a new school.
Comment: Inconsistent numbers of students are referred to in various parts of the DEIR, as well as inconsistent numbers of dwelling units to determine the number of students.
Comment: If no school is built, Meadowood proposes 42 additional DUs after two years, but the school acreage should be undeveloped and held for the construction of a future school.
Comment: Has proper consideration been given to the increase in high school students generated by the Meadowood project, given that the Fallbrook High School is already at over-capacity?

Law Enforcement - The County's acceptable response time for priority calls is 8 minutes, yet the 2005 response time for the Meadowood area was 11.9 minutes. (4-28)
Comment: How can this discrepancy result in a "less than significant impact?"

The new Sheriff's sub-station at I-15 is not scheduled to be available until at least 2019.
Comment: This further reduces the likelihood of adequate service to the proposed area. What mitigations are proposed?

Energy - Insufficient discussion of energy in Chapter 8 -Mitigation
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Land Use Planning Changes - In order to develop the Proposed Project, a number of land use and zone changes to the General Plan and the Fallbrook Community Plan are required.

K-38

Water conservation and efficiency measures, detailed in Subchapter 2.2.3, Global Climate Change (Guideline 5), Operational Emissions (Water Use), of the Final EIR, include use of either reclaimed water or groundwater to irrigate common areas, utilizing the new stormwater regulations, installation of low water usage appliances, and the Proposed Project shall offset the remainder of its delivered water requirement to achieve a net-zero water demand.

As detailed Subchapter 2.2.3, Global Climate Change (Guideline 5), Operational Emissions (Solid Waste), of the Final EIR, the measures included to reduce the generation of solid waste are the requirement to meet or exceed the County's Construction and Demolition Debris Ordinance (Sections 68.508 through 68.518 of the County Code of Regulatory Ordinances), which means recycling 90 percent of inerts and 70 percent of other materials, providing recycling bins, and conforming to the applicable County recycling requirements.

The Proposed Project also promotes sustainable water conservation, by including a recycled water storage and distribution system which has been designed to potentially accommodate future projects.

Overall, the Proposed Project includes the design measures, as listed in Subchapter 8 (MMRP), which are meant to affect a reduction of energy use and the promotion of non-renewable resources conservation.

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Comment: Inconsistent numbers of students are referred to in various parts of the DEIR, as well as inconsistent numbers of dwelling units to determine the number of students.
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Comment: Why aren't water and sewer issues resolved first as called for in all County Planning Regulations? } K-39

Design Review Committee

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The Meadowood Specific Plan Amendment and Design process would not change the significant adverse effects that this project would have on community character, visual environment, and physical changes that would degrade this area. This DEIR is deficient and does not demonstrate in any way how these significant negative impacts would be mitigated

Applicant should comply with their goals to create a project that is compatible with the surrounding area. DIER as presented does not accomplish this.

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K-39 As detailed in Subchapter 1.2.1, *LAFCO*, of the Final EIR, because the Project Site is not completely situated, within the boundaries of a municipal water district, LAFCO must identify the appropriate district to provide water and wastewater service. This is done through the MSR/SOI process. LAFCO has indicated it will not undertake this process until after the County Board of Supervisors makes a decision on the Proposed Project. Thereafter, as assured in the General Plan Compliance Report, Chapter XII, "A commitment letter from the MWD, as identified by LAFCO, will be required prior to issuance of construction permits." This condition is likewise included in Table 1-5 and Subchapter 8 (MMRP) of the Final EIR.

County planning regulations cover all aspects of planning activities. In particular, Board of Supervisor's Policy I-84 requires the reasonable expectation that public facilities (water, sewer, fire and schools) providing that such facilities must be available prior to the approval of final maps. As discussed in Subchapter 4.6.4, Wastewater, of the Final EIR, the Proposed Project is in compliance with Board Policy I-84 because the Proposed Project is conditioned on the provision of service availability forms from the selected MWD, prior to recordation of a Final Map and issuance of building permits.

Recently, the Board of Directors of VCMWD has adopted a resolution supporting annexation of the Proposed Project into the district. However, annexation cannot occur until the LAFCO process is completed following approval of the Proposed Project and certification of the Final EIR by the County of San Diego Board of Supervisors.

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Design Review Committee

General Comments: DEIR has Numerous times stated that this project is inconsistent with regional and general plans. We agree. Changing and/or amending Land Use and Zoning elements or designations, as well as the General Plan and Fallbrook's Community Plan will not mitigate any of the significant impacts that have been identified. It would just allow the project to be built.
The Meadowood Specific Plan Amendment and Design process would not change the significant adverse effects that this project would have on community character, visual environment, and physical changes that would degrade this area. This DEIR is deficient and does not demonstrate in any way how these significant negative impacts would be mitigated
Applicant should comply with their goals to create a project that is compatible with the surrounding area. DIER as presented does not accomplish this.

K-40

Community Design - 1.2.1 Project Component Parts Page 8 & 10
Comment: The Fallbrook Community Guidelines and the permitting process should be included in this section.

K-41

Grading and Construction
Comment: Cut and fill slopes are inconsistently listed. Some sections state a max of 80 ft. others 100 ft. Regardless, this is an enormous amount of grading and will forever change the topography of the land. Changing the Land Use designation to allow these slopes, will not mitigate the changes in topography.

K-42

Land Use Planning Changes - In order to develop the Proposed Project, a number of land use and zone changes to the General Plan and the Fallbrook Community Plan are required.

K-40 The Proposed Project is not currently consistent with the regional designation or the land use designation in the General Plan and Fallbrook Community Plan. Approval of the GPA and SPA would cause the Proposed Project to be brought into conformance with the various regulatory plans and policies. The County acknowledges that approval of the GPA/SPA would not mitigate project impacts. Mitigation measures for impacts associated with community character, visual environment and physical changes to the area are identified in Subchapters 2 and 3 under each topic area and in Subchapter 8, the Mitigation Monitoring and Reporting Program. Please refer to response to comment K-9 for details on the Proposed Project's compatibility with Community Character related regulations.

K-41 The County concurs with this comment. Subchapter 1.2.1, *County of San Diego*, Community Design, of the Final EIR have been revised as follows, "The Community Design Element conforms to the Fallbrook Community Plan and Fallbrook Design Guidelines as detailed Appendix 1 of the Meadowood Specific Plan and General Plan Amendment." Additionally text has been added to detail the site plan permitting process. Appendix 1 of the Meadowood Specific Plan/General Plan Amendment contains a checklist illustrating the Proposed Project's compliance with all relevant community design documents including the Fallbrook Community Plan, Fallbrook Design Guidelines, and I-15 Corridor Subregional Plan and Guidelines.

K-42 The County concurs that the cut and fill slopes were inconsistently stated in the EIR. Please refer to response to Comment K-9 which identifies that the Final EIR has been clarified to state that manufactured slopes would be up to 80 feet in height. The County has concluded that the Meadowood Community Design Guidelines, which include grading measures, would reduce impacts to a level that is less than significant.

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Land Use Planning Changes - In order to develop the Proposed Project, a number of land use and zone changes to the General Plan and the Fallbrook Community Plan are required. } K-43

K-43 The County acknowledges that land use and zoning changes are required for the Proposed Project. As discussed in Subchapter 4.1, and summarized in Subchapter 1.6, of the Final EIR, the Proposed Project is not consistent with the current land use designations contained in the adopted County General Plan and Fallbrook Community Plan and the current use regulations contained in the County Zoning Ordinance. However, as part of the Proposed Project, the applicant is processing a GPA and Rezone, which would render the Proposed Project consistent with all applicable land use regulations. It is a matter for the decision makers, not the EIR, to determine whether there are sufficient reasons to approve the Proposed Project.

These include:
1) "Amend Regional Land Use Element Map to change the regional land use category from Special Study Area (SSA) and Rural Development Area (RDA) to Current Urban Development Area (CUDA);"
Comment: This is NOT an Urban Area.
2) "Amend the Fallbrook Community Plan to change the land use designation from (21) Specific Plan Area and (18) Multiple Rural Use to (21) Specific Plan Area for the entire Project Site;
Comment: This IS a rural Area
3) "Rezone the property from S90, Holding Area and A70, Limited Agriculture, to S88, Specific Plan Area. "
Comment: DEIR has not demonstrated in any way the necessity for these Land Use Changes.

K-43

Inconsistencies of Project with Applicable Regional and General Plans- 1.6
"The Proposed Project contains residential densities that are not consistent with the existing Fallbrook Community Plan (18) Multiple Rural Use land use designation for the eastern 297.5 acres of the Project Site ….A General Plan Amendment and Rezone are proposed to bring the Proposed Project into conformance with the General Plan Regional Land Use Map, Land Use, Fallbrook Community Plan land use designation, and zoning. ….."
Comment: Fallbrook is a rural community. Our community plan reflects our rural lifestyle. While future development has been envisioned in this area, DEIR is overstating what was envisioned. Project proposes to change long standing ordinances that protect the beauty of this open space, to build a project that is huge in scale and completely out of character with the surrounding community. Project proposes to build a large urban project in a rural area.
As the DEIR states, the project is inconsistent with regional and general plans. DEIR has not demonstrated how amendments to Land Use designations would mitigate the project's significant impacts.

K-44

Conclusion 1.8.6 - In conclusion, the Proposed Project will not result in growth inducing effects for the following reasons.
1) "The Proposed Project is located in an area envisioned to support additional development as identified by the SANDAG Smart Growth Concept Map, the I-15 Corridor Subregional Plan, the I-15/Highway 76 Master Specific Plan, and the General Plan Update.
Comment: DIER's conclusions are based on concepts & reference materials that appear outdated. While growth has been envisioned for this area, project densities far exceed this vision. DEIR does not demonstrate how their density is relevant or of public advantage, with today's economic conditions, the decline in long range housing projections and long term water shortages.
2. The additional housing is proposed in an area which is planned to support residential and commercial developments.
Comment: Projects density exceeds what was planned.
3. Roadway construction will serve traffic from only the Proposed Project and two additional cumulative development projects for which applications have already been submitted, along with the approved Palomar College campus.
4. The area has anticipated growth since at least 1983 and is included in the 2007 Update to the 2005 Urban Water Management Plan.
Comment: Although growth has been anticipated for this area, projections may be outdated. The necessity for this project's density has not been demonstrated. Additionally major water shortages for this area are anticipated for many years.
5. The proposed parks are scaled to comply with State and County requirements for parks and to serve the proposed number of homes.
6. The availability of a new school site would assist the BUESD in meeting the student enrollment demands created by the Proposed Project.
Comment: In conflict with portion of DEIR that states that if the school is not built in 2 years, 42 DUs would be built.

K-45

K-44 The Proposed Project contains residential densities that are not consistent with the existing Fallbrook Community Plan designation for the Project Site. However, as described in Subchapters 1 and 4.1, there are other plans and overlays (e.g., SANDAG Smart Growth Concept Map, the I-15 Corridor Subregional Plan, the I-15/Highway 76 Master Specific Plan, and the General Plan Update) which envision this quadrant as a development node because of its strategic location and conformance with smart growth concepts. Subchapter 4.1.4of the Final EIR, acknowledges that, "the Proposed Project is not consistent with the current land use designations contained in the adopted County General Plan, Fallbrook CP, and I-15 Corridor Subregional Plan, or the current use regulations contained in the County Zoning Ordinance." Approval of the General Plan Amendment and rezone would render the Proposed Project consistent with all applicable land use regulations and allow the Project Site to be developed as foreseen in the above-mentioned planning documents. Also, please see responses to Comments K-8, which addresses issues of rural character, and K-40 addressing mitigation of impacts.

K-45 The County disagrees with the assertion that the concepts and reference materials referred to in this comment are outdated. The documents relied upon to address growth inducing effects represent planning tools created to guide long term build out of the area. The SANDAG Smart Growth Concept Maps (SGCMs) were developed as an implementation tool for the Regional Comprehensive Plan (RCP). The RCP serves to provide a development framework for the County, based on smart growth and sustainability. Adopted in 2004, the RCP provides direction for growth, to the build-out year of 2030, and is reviewed through Annual Performance Monitoring Reports. Like the RCP and associated SGCMs, the I-15 Corridor Subregional Plan and I-15/Highway 76 Master Specific Plan were adopted in the early 1980s, to guide the long-term development of the area. I-15 Corridor Subregional Plan was specifically adopted by the County to address sensitive environmental resources within the I-15 viewshed.

These include:
1) "Amend Regional Land Use Element Map to change the regional land use category from Special Study Area (SSA) and Rural Development Area (RDA) to Current Urban Development Area (CUDA);"
Comment: This is NOT an Urban Area.
2) "Amend the Fallbrook Community Plan to change the land use designation from (21) Specific Plan Area and (18) Multiple Rural Use to (21) Specific Plan Area for the entire Project Site;
Comment: This IS a rural Area
3) "Rezone the property from S90, Holding Area and A70, Limited Agriculture, to S88, Specific Plan Area. "
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K-45

K-45 (cont.)

The I-15/SR-76 Master Specific Planning Area (MSPA) was thereafter adopted to implement the I-15 Corridor Subregional Plan. Encompassing approximately 1,178 acres of land within the four quadrants of the interchange, the MSPA was anticipated to become a logical node of future development of both residential and commercial uses because of its location at the intersection of an interstate freeway and a state highway. The MSPA recommended that a final land use plan for the area not be adopted until further studies identified the needs of the area and the appropriate methods to address those needs. As individual projects propose development within the MSPA, the needs of the area are analyzed within the pages of the project EIRs. These planning documents have not been revised and continue to represent the County's vision for the area, as reflected in the General Plan Update. The Proposed Project seeks to implement these long-term plans while reflecting current economic conditions through the offering of a variety of housing types to accommodate an array of housing prices.

Long-term water supplies issues are addressed in response to comment K-20.

As detailed in Subchapters 5.6 and 5.7, of the Final EIR, implementation of the General Plan Update Draft Land Use Map would result in a total of 1,168 dwelling units while the General Plan Update Referral Map Alternative would result in 536 dwelling units; 322 fewer units than the Proposed Project. The density proposed by the Proposed Project represents a middle-ground, between the two proposed land use maps, which both meet the applicant's objectives and reduce the impacts associated with the high density map. As detailed throughout the EIR, significant impacts are addressed, mitigated or overriding considerations exist, to allow the proposed density. It is a matter for the decision makers, not the EIR, to determine whether, based on the information presented, there are sufficient reasons to approve the Proposed Project.

These include:
1) "Amend Regional Land Use Element Map to change the regional land use category from Special Study Area (SSA) and Rural Development Area (RDA) to Current Urban Development Area (CUDA);"
Comment: This is NOT an Urban Area.
2) "Amend the Fallbrook Community Plan to change the land use designation from (21) Specific Plan Area and (18) Multiple Rural Use to (21) Specific Plan Area for the entire Project Site;
Comment: This IS a rural Area
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Comment: In conflict with portion of DEIR that states that if the school is not built in 2 years, 42 DUs would be built.

K-46

K-47

K-46 As explained in Subchapter 2.3.4 of the Final EIR, the cumulative traffic impact discussion provides an analysis of, "all of the known cumulative project traffic but does not include the necessary roadway mitigation measures required to support all of the other cumulative projects." The analysis assumes that due to the size of some of the other cumulative projects, significant roadway improvements would be forthcoming to satisfy CEQA requirements. The analysis additionally assumes completion of the Caltrans SR-76 East Project.

Based on these reasonable assumptions, the mitigation measures included as conditions of approval would reduce direct impacts of the Proposed Project to a less than significant level. As further addressed in Subchapter 2.3.6 of the Final EIR, completion of the Caltrans SR-76 East Project is a State project and cannot be guaranteed by the County. If this Caltrans project is not completed, prior to occupancy of the Proposed Project, the EIR finds that direct impacts, on two State Route segments, could remain significant and unmitigated.

The remaining portion of this comment regarding anticipated growth is an accurate statement of fact and requires no further response.

K-47 Please refer to response to comment K-45 which addresses the issue of outdated growth projections and project density. As stated previously, the EIR is not required to demonstrate necessity, but rather provide the information required for the decision makers to make a determination regarding the project's merits.

Please refer to response to comment Q-2 for a discussion on the adequacy of water supply.

The last part of this comment regarding proposed parks is an accurate statement of fact and requires no further response.

These include:
1) "Amend Regional Land Use Element Map to change the regional land use category from Special Study Area (SSA) and Rural Development Area (RDA) to Current Urban Development Area (CUDA);"
Comment: This is NOT an Urban Area.
2) "Amend the Fallbrook Community Plan to change the land use designation from (21) Specific Plan Area and (18) Multiple Rural Use to (21) Specific Plan Area for the entire Project Site;
Comment: This IS a rural Area
3) "Rezone the property from S90, Holding Area and A70, Limited Agriculture, to S88, Specific Plan Area. "
Comment: DEIR has not demonstrated in any way the necessity for these Land Use Changes.

Inconsistencies of Project with Applicable Regional and General Plans- 1.6
"The Proposed Project contains residential densities that are not consistent with the existing Fallbrook Community Plan (18) Multiple Rural Use land use designation for the eastern 297.5 acres of the Project Site ….A General Plan Amendment and Rezone are proposed to bring the Proposed Project into conformance with the General Plan Regional Land Use Map, Land Use, Fallbrook Community Plan land use designation, and zoning. ….."
Comment: Fallbrook is a rural community. Our community plan reflects our rural lifestyle. While future development has been envisioned in this area, DEIR is overstating what was envisioned. Project proposes to change long standing ordinances that protect the beauty of this open space, to build a project that is huge in scale and completely out of character with the surrounding community. Project proposes to build a large urban project in a rural area.
As the DEIR states, the project is inconsistent with regional and general plans. DEIR has not demonstrated how amendments to Land Use designations would mitigate the project's significant impacts.

Conclusion 1.8.6 - In conclusion, the Proposed Project will not result in growth inducing effects for the following reasons.
1) "The Proposed Project is located in an area envisioned to support additional development as identified by the SANDAG Smart Growth Concept Map, the I-15 Corridor Subregional Plan, the I-15/Highway 76 Master Specific Plan, and the General Plan Update.
Comment: DIER's conclusions are based on concepts & reference materials that appear outdated. While growth has been envisioned for this area, project densities far exceed this vision. DEIR does not demonstrate how their density is relevant or of public advantage, with today's economic conditions, the decline in long range housing projections and long term water shortages.
2. The additional housing is proposed in an area which is planned to support residential and commercial developments.
Comment: Projects density exceeds what was planned.
3. Roadway construction will serve traffic from only the Proposed Project and two additional cumulative development projects for which applications have already been submitted, along with the approved Palomar College campus.
4. The area has anticipated growth since at least 1983 and is included in the 2007 Update to the 2005 Urban Water Management Plan.
Comment: Although growth has been anticipated for this area, projections may be outdated. The necessity for this project's density has not been demonstrated. Additionally major water shortages for this area are anticipated for many years.
5. The proposed parks are scaled to comply with State and County requirements for parks and to serve the proposed number of homes.
6. The availability of a new school site would assist the BUESD in meeting the student enrollment demands created by the Proposed Project.
Comment: In conflict with portion of DEIR that states that if the school is not built in 2 years, 42 DUs would be built.

K-48

K-48 Please refer to response to comment K-4 for a discussion of the Subdivision Map Act requirements, which govern the proposed school site. Additionally, as discussed in Subchapter 4.3.3, Schools, of the Final EIR, should the school site not be developed by BUESD, the Proposed Project will be required to pay school development fees. Under either scenario, impacts to school services would be considered less than significant.

Visual Impact
DIER states: The current project as proposed is incompatible with the rural character of Fallbrook
Comment: DEIR lists significant impacts in the Visual Impact Assessment Findings & Visual Impact Evaluation Conclusions, but goes on to say that these impacts can be mitigated to, or below, a level of significance by changing the current approved land use designations. DEIR has not demonstrated how this would be possible. Even with these amendments these impacts would still be significant and unmitigatible and have a major negative impact on the area, the local population and the entire character of Fallbrook.

K-49

1. Summary of Findings
"The following visual impacts are anticipated as a result of implementation of the Meadowood Specific Plan Amendment
1) The Visual Quality of the viewshed is anticipated to be impacted significantly due to major changes to the pattern character of the site as a result of the project.... . This significant impact would be reduced to below a level of significance with the incorporation of the Meadowood Specific Plan Amendment Guidelines and design review process.
Comment: DEIR does not demonstrate in any way how these significant negative impacts would be mitigated except by simply by changing the SPA & Design Review Process.
2) Manufactured slopes in excess of 100 feet, created by the project, will have a significant impact on the quality of landforms within the project viewshed....This impact would be reduced to below a level of significance with the incorporation of the Meadowood Specific Plan Amendment Guidelines and design.
Comment: DEIR does not demonstrate in any way how these significant negative impacts would be mitigated except by simply by changing the SPA & Design Review Process.
100 foot slopes contracts applicants statement in Grading under Community Design Section that the slopes will be a maximum of 80 feet. Regardless, these slopes violate the FCP which prohibits grading that will unduly change the natural topography.
3) The existing community character of the valley will be significantly changed due to the density and arrangement of buildings and forms associated with the project....This impact would be reduced to below a level of significance with the incorporation of the Meadowood Specific Plan Amendment Guidelines and design review process. .
Comment: DEIR does not demonstrate in any way how these significant negative impacts would be mitigated except by simply by changing the SPA & Design Review Process
6) Short-term visible construction activities would contrast with existing conditions due to removal of existing vegetation and the introduction of new, visually dominant elements. While temporary in nature and addressed through project design landscaping over the long-term, adverse visual impacts associated with construction activities would be significant but short term.
Comment: DEIR does not provide their definition of short term. If this project is anticipated to be done in phases over a period of many years, these impacts would not be short term.
7) Significant cumulative visual impacts are anticipated when considering the project in conjunction with other cumulatively considerable projects. This impact is considered to be significant and unmitigatible.
Comment: This project by itself would create significant and unmitigatible impacts. DEIR states in other sections that significant impacts from this project can be mitigated by changes in land use. DEIR has not demonstrated why then, if this DEIR project's impacts could be mitigated simply by land use changes, would the project still add to cumulative impacts when considered with other projects? This does not make sense.

K-50

Community Design Goal, Objectives And Policies 8.6 Goal
Comment: DEIR lists significant impacts that would be reduced to, or below a level of significance. However applicant's conclusions can only be reached by changing the current

K-49 Subchapter 2.1 of the EIR discusses potentially significant visual impacts associated with the Proposed Project. The Proposed Project includes design measures, which serve to ameliorate the significant impacts caused by the Proposed Project. These impacts are the result of changes to the visual pattern and character of the Project Site, as well as the visual quality of the viewshed. The Meadowood Community Design Guidelines (Appendix 2 of the Meadowood Specific Plan/General Plan Amendment) provide site planning, architecture and landscape design guidelines to assure protection of the character and rural integrity of the Project Site. As detailed in Subchapter 2.1.3, Change in Visual Pattern or Character (Guideline 1), of the EIR, design measures include:

- Minimal ridgeline and steep slope development
- Retention of groves
- Curved streets to follow natural topography
- Landscaping of manufactured slopes and streetscapes
- Minimal signage and limited lighting.

Additionally, the Proposed Project is designed to conform to the policies of the Fallbrook Community Plan, Fallbrook Design Guidelines and I-15 Corridor Subregional Plan and Guidelines. Please refer to responses to comments K-8 and K-9. Direct visual impacts are reduced through these design measures.

The County agrees that notwithstanding the implementation of design measures, the Proposed Project would contribute to a significant and unmitigable cumulative impact as identified in Subchapter 2.1.5 of the Final EIR.

K-50 Please refer to response to comment K-49.

Visual Impact
DIER states: The current project as proposed is incompatible with the rural character of Fallbrook
Comment: DEIR lists significant impacts in the Visual Impact Assessment Findings & Visual Impact Evaluation Conclusions, but goes on to say that these impacts can be mitigated to, or below, a level of significance by changing the current approved land use designations. DEIR has not demonstrated how this would be possible. Even with these amendments these impacts would still be significant and unmitigatible and have a major negative impact on the area, the local population and the entire character of Fallbrook.

1. Summary of Findings
"The following visual impacts are anticipated as a result of implementation of the Meadowood Specific Plan Amendment
1) The Visual Quality of the viewshed is anticipated to be impacted significantly due to major changes to the pattern character of the site as a result of the project.... . This significant impact would be reduced to below a level of significance with the incorporation of the Meadowood Specific Plan Amendment Guidelines and design review process.
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100 foot slopes contracts applicants statement in Grading under Community Design Section that the slopes will be a maximum of 80 feet. Regardless, these slopes violate the FCP which prohibits grading that will unduly change the natural topography. K-51
3) The existing community character of the valley will be significantly changed due to the density and arrangement of buildings and forms associated with the project....This impact would be reduced to below a level of significance with the incorporation of the Meadowood Specific Plan Amendment Guidelines and design review process. .
Comment: DEIR does not demonstrate in any way how these significant negative impacts would be mitigated except by simply by changing the SPA & Design Review Process K-52
6) Short-term visible construction activities would contrast with existing conditions due to removal of existing vegetation and the introduction of new, visually dominant elements. While temporary in nature and addressed through project design landscaping over the long-term, adverse visual impacts associated with construction activities would be significant but short term. K-53
Comment: DEIR does not provide their definition of short term. If this project is anticipated to be done in phases over a period of many years, these impacts would not be short term.
7) Significant cumulative visual impacts are anticipated when considering the project in conjunction with other cumulatively considerable projects. This impact is considered to be significant and unmitigatible.
Comment: This project by itself would create significant and unmitigatible impacts. DEIR states in other sections that significant impacts from this project can be mitigated by changes in land use. DEIR has not demonstrated why then, if this DEIR project's impacts could be mitigated simply by land use changes, would the project still add to cumulative impacts when considered with other projects? This does not make sense. K-54

Community Design Goal, Objectives And Policies 8.6 Goal
Comment: DEIR lists significant impacts that would be reduced to, or below a level of significance. However applicant's conclusions can only be reached by changing the current

K-51 Please refer to response to Comment K-9 which:

1) Provides clarification that the height of manufactured slopes would be 80 feet
2) Details where in the EIR revisions have been made to reflect this clarification, and
3) Addresses the Fallbrook Community Plan policies associated with grading natural topography.

The Specific Plan does not seek to change the design review process, but rather assures that implementation of the Proposed Project conforms to design review requirements.

K-52 This comment references the community character of the "valley" which can be assumed to mean the Proposed Project in conjunction with the cumulative projects. As discussed in Subchapters 2.1.4 and 2.1.5 of the Final EIR, cumulative impacts resulting from the change in character of the area when all of the cumulative projects are constructed, would be significant and unmitigated.

As stated above, the Specific Plan does not seek to change the design review process, but rather assures that implementation of the Proposed Project conforms to design review requirements avoiding direct impacts.

K-53 Construction activities are described as short-term since they are not a permanent impact. These impacts are those which occur from the time the Project Site is graded until growth of the required landscaping. Landscaping will be planted directly upon completion of construction activities. Nevertheless, the EIR concludes that visual impacts during construction would be significant and unmitigated due to removal of vegetation, and grading activities.

K-54 Please refer to responses to comments K-49, K-51, and K-52.

Visual Impact
DIER states: The current project as proposed is incompatible with the rural character of Fallbrook
Comment: DEIR lists significant impacts in the Visual Impact Assessment Findings & Visual Impact Evaluation Conclusions, but goes on to say that these impacts can be mitigated to, or below, a level of significance by changing the current approved land use designations. DEIR has not demonstrated how this would be possible. Even with these amendments these impacts would still be significant and unmitigatible and have a major negative impact on the area, the local population and the entire character of Fallbrook.

1. Summary of Findings
"The following visual impacts are anticipated as a result of implementation of the Meadowood Specific Plan Amendment
1) The Visual Quality of the viewshed is anticipated to be impacted significantly due to major changes to the pattern character of the site as a result of the project.... . This significant impact would be reduced to below a level of significance with the incorporation of the Meadowood Specific Plan Amendment Guidelines and design review process.
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Comment: DEIR does not provide their definition of short term. If this project is anticipated to be done in phases over a period of many years, these impacts would not be short term.
7) Significant cumulative visual impacts are anticipated when considering the project in conjunction with other cumulatively considerable projects. This impact is considered to be significant and unmitigatible.
Comment: This project by itself would create significant and unmitigatible impacts. DEIR states in other sections that significant impacts from this project can be mitigated by changes in land use. DEIR has not demonstrated why then, if this DEIR project's impacts could be mitigated simply by land use changes, would the project still add to cumulative impacts when considered with other projects? This does not make sense.

Community Design Goal, Objectives And Policies 8.6 Goal
Comment: DEIR lists significant impacts that would be reduced to, or below a level of significance. However applicant's conclusions can only be reached by changing the current

K-55

K-55 As discussed throughout the EIR, proposed mitigation results in reducing potentially significant impacts to a level that is less than significant except for impacts associated with short-term construction, cumulative visual impacts, conformance with regional air quality regulations, and direct impacts to SR-76 if Caltrans does not complete their road improvements. These impacts would remain significant and unmitigated. However, pursuant to CEQA Section 15093, the decision makers are permitted to balance the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve a project. If these overriding considerations are determined to outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered acceptable. The Proposed Project offers a number of benefits, detailed in the Findings and Statement of Overriding Considerations (SOC), which outweigh the significant and unmitigated impacts, stated above. The Board of Supervisors will make a decision on whether the Findings and the SOC outweigh the unavoidable impacts identified in the EIR.

approved land use designations. Even with these amendments, the results are unmitigatible and would have a major negative impact on the area, the local population and the entire character of Fallbrook

K-55

Project Description C
The architectural character as detailed in the Fallbrook Design Guidelines would be incorporated into the design of Meadowood. The buildings would be limited to two stories and a 35-foot maximum height limit. Non-residential buildings would have no strict design requirements but are limited to two stories and a 35-foot height limit.
Comment: Non-Residential building should be subject to the same design requirements as residential buildings.

K-56

Development within Meadowood would be subject to the "B" designator in accordance with the Fallbrook Community Plan and I-15 Corridor Plan. This means that design proposals require Site Plan review for any development permit. The intent of the "B" designator is to address manmade and natural features which affect the scenic quality of the Fallbrook Community and the I-15 Corridor area. This will help to ensure that every new development carefully considers the community context in which it takes place and make a conscientious effort to develop a compatible relationship to the natural setting, neighboring properties and community design goals.
Comment: In contradiction to other sections, clarification is needed so that ALL planning areas are subject to Fallbrook Design review for any development permit.

K-57

Meadowood Residential Guidelines
Site Design & Architecture
Comment: The Meadowood Residential Guidelines Site Design & Architecture shows residential units that are a maximum of two stories and height of 35 feet. We agree with this. The varied architecture styles are aesthetically pleasing.

However, the site design standards show an overall density that is completely out of character with the surrounding area, especially the medium density lots that are 47x55 and the high density neighborhoods.

DEIR states numerous times that the project will comply with the Fallbrook Design Guidelines. However, while each individual dwelling unit's architecture may be aesthetically pleasing and may appear to be consistent with the guidelines, dwelling units looked at together as a whole planning area or subdivision, are completely out of character with the applicant's goals to create a project that is compatible with Fallbrook's rural atmosphere and the surrounding environs, as required in the Fallbrook Design Guidelines, which states and is also noted in the DEIR....

DEIR states that certain planning areas will be subject to Fallbrook DR review and other areas will be subject to I-15 Corridor Design Review. All areas of this project should be subject to the Fallbrook Design Review permitting process.

K-58

Parks and Recreation Committee

Comment: The number of desired dwelling units Meadowood presented and their close proximity to one another, allows no room for family recreation. Additional parks should be added and the one small park now offered is completely inadequate.

Comment: Open Spaces and Parks, active and passive, are presently inadequately represented. Housing density is too heavy without adequate parks and park amenities; such as, soccer fields, ball fields, basketball, volleyball, etc., within these high-density housing areas. Parks should be provided for each neighborhood and be centrally located within each neighborhood.

K-56 The first part of this comment is an accurate statement of what is described within the EIR.

With regard to the second part of this comment, the non-residential buildings subject to the EIR, including the community buildings and recreation center, would be subject to the design guidelines, which conform to the Fallbrook Design Guidelines. The elementary school, however, if chosen to be built by BUESD, would be exempt from County regulations and not necessarily be designed to the Proposed Project/Fallbrook specifications.

K-57 The first part of this comment is an accurate statement of fact.

With regard to the second part of this comment, please refer to response to Comment K-56 which addresses that all development subject to review by the County and would meet Fallbrook Design Guidelines.

K-58 Please refer to response to Comment K-8 which addresses the character of the Project Site and its relationship with rural Fallbrook. The surrounding area is currently open space, so any development would appear at first glance to be "out of character." However, throughout all the Proposed Project neighborhoods, including the medium and higher density areas, the Fallbrook community character would be maintained through implementation of the Meadowood Residential Guidelines, which conform to the Fallbrook Design Guidelines. See Appendix 1, of the Meadowood Specific Plan/General Plan Amendment - Meadowood General Plan Compliance Report. Likewise, as detailed in Subchapter 2.1.3, Conformance with Visual Resources regulations (Guideline 6), of the Final EIR, the Proposed Project conforms to the Fallbrook CP Community Beautification and Design Goals. Therefore, although higher in density, these planning areas would maintain the character and integrity of the Fallbrook Design Guidelines.

approved land use designations. Even with these amendments, the results are unmitigatible and would have a major negative impact on the area, the local population and the entire character of Fallbrook

Project Description C
The architectural character as detailed in the Fallbrook Design Guidelines would be incorporated into the design of Meadowood. The buildings would be limited to two stories and a 35-foot maximum height limit. Non-residential buildings would have no strict design requirements but are limited to two stories and a 35-foot height limit.
Comment: Non-Residential building should be subject to the same design requirements as residential buildings.

Development within Meadowood would be subject to the "B" designator in accordance with the Fallbrook Community Plan and I-15 Corridor Plan. This means that design proposals require Site Plan review for any development permit. The intent of the "B" designator is to address manmade and natural features which affect the scenic quality of the Fallbrook Community and the I-15 Corridor area. This will help to ensure that every new development carefully considers the community context in which it takes place and make a conscientious effort to develop a compatible relationship to the natural setting, neighboring properties and community design goals.
Comment: In contradiction to other sections, clarification is needed so that ALL planning areas are subject to Fallbrook Design review for any development permit.

Meadowood Residential Guidelines
Site Design & Architecture
Comment: The Meadowood Residential Guidelines Site Design & Architecture shows residential units that are a maximum of two stories and height of 35 feet. We agree with this. The varied architecture styles are aesthetically pleasing.
However, the site design standards show an overall density that is completely out of character with the surrounding area, especially the medium density lots that are 47x55 and the high density neighborhoods.
DEIR states numerous times that the project will comply with the Fallbrook Design Guidelines. However, while each individual dwelling unit's architecture may be aesthetically pleasing and may appear to be consistent with the guidelines, dwelling units looked at together as a whole planning area or subdivision, are completely out of character with the applicant's goals to create a project that is compatible with Fallbrook's rural atmosphere and the surrounding environs, as required in the Fallbrook Design Guidelines, which states and is also noted in the DEIR....
DEIR states that certain planning areas will be subject to Fallbrook DR review and other areas will be subject to I-15 Corridor Design Review. All areas of this project should be subject to the Fallbrook Design Review permitting process. } K-59

Parks and Recreation Committee

Comment: The number of desired dwelling units Meadowood presented and their close proximity to one another, allows no room for family recreation. Additional parks should be added and the one small park now offered is completely inadequate. } K-60

Comment: Open Spaces and Parks, active and passive, are presently inadequately represented. Housing density is too heavy without adequate parks and park amenities; such as, soccer fields, ball fields, basketball, volleyball, etc., within these high-density housing areas. Parks should be provided for each neighborhood and be centrally located within each neighborhood. } K-61

K-59 The County concurs with this comment, with the exception of the proposed elementary school, which would be exempt from County land use regulations. Subchapter 1.2.1, *County of San Diego*, Community Design, of the Final EIR, has been revised to reflect that the Proposed Project is subject to the "B" Designator Site Plan Review Process as required by the Fallbrook Design Review Guidelines.

K-60 The Proposed Project provides recreational opportunities in the form of a neighborhood park, two pocket parks and 5.9 miles of trails. The County has determined the Proposed Project's contribution to parks to be adequate pursuant to the County Park Land and Dedication Ordinance (PLDO). In addition, the applicant will pay fees, in accordance with the PLDO, for the development of future parks. Refer to response to comment K-61 for additional details.

K-61 The Proposed Project conforms to the County PLDO and provides adequate park land and/or in lieu payment of fees. The Proposed Project includes a 10.1-acre neighborhood park, two pocket parks and 5.9 miles of trails. The neighborhood park is centrally located in Planning Area 3 and the pocket parks are located north and south within Planning Areas 1 and 6. As illustrated in Figure 1-3 of the Final EIR, the trails circulate throughout the entirety of the Project Site. Planning Area 4, the multi-family neighborhood, also contains a recreational center. While there is no regulatory requirement relating to the location of park land within a development, the Proposed Project assures convenient access to the on-site facilities, whether through trails, or road access.

In addition to the land reserved for parks, the Proposed Project will be required to contribute fees, based on the standards expressed in the PLDO. These fees are due prior to issuance of building or other development permits.

Overall, the Proposed Project provides centrally located park land and will pay fees as allowed under the PLDO to assure adequacy of park and recreational uses.

Comment: The pathways and trails look good. However, our primary concern is a staging area that has been requested in the past and has not currently been detailed on the maps. Additionally, there is inadequate distribution of active and passive open spaces and parks within the high-density residential areas as presently represented. The community college and elementary school recreational areas should not be considered as part of the project, as they are customarily fenced and locked during after-school hours. K-62 K-63

Comment: We recommend that the 12.7 acre area presently proposed for an elementary school be dedicated to become a park and open space area if no school is built after completion of housing project." K-64

Comments from Individual Members of the Planning Group and the Public

Project Alternatives

Comment: The Project Alternatives were poorly selected and were evaluated in a questionable manner. This was evident based on the conclusions drawn about the various alternatives. For instance, the environmentally sensitive development option would increase the development unit counts to 1138 units or the finding that the 'no project alternative' would extinguish agriculture in the area. Fallbrook is comprised of many large lots with agricultural features and that is what makes our community unique. These inconsistencies in Section 5 of the DEIR (Project Alternatives) invalidate the DEIR on the grounds that the CEQA guidelines to identify and study viable alternatives have not been met. K-65

Stated Goal of Meadowood's Project Alternatives: To evaluate the Project Alternatives based on their "ability to meet the basic objectives of the Proposed Project." (5-1)
Comment: This goal and this process assume that the basic objectives are valid. However, an analysis of the following four objectives for the Proposed Project, reveal that they are patently invalid:

Objective 1: Provide a variety of residential land uses to allow for residential development that … (is) consistent with the rustic charm of Fallbrook.
Comment: "Variety" is a standard that applies to the entire community of Fallbrook, not a standard to be applied to a single project. Meadowood as a single project is not entitled to "variety." To reject any Project Alternative based on its inability to provide "variety" is a false objection. Furthermore, there is nothing about any project of 800+ homes that can be "consistent with rustic."

Objective 2: Provide an opportunity for home ownership by increasing the housing supply with a variety of housing types in Fallbrook.
Comment: "Variety" is also misused as a standard in Objective 2 and is equally false as an objection to an alternative. "Increasing the housing supply" can be achieved by a broad range of increases in the supply of housing. To reject alternatives because they do not "increase the housing supply" is a false conclusion based on an undefined, and therefore unattainable, standard.

Objective 4: Provide for land uses that relate to the community in conjunction with the two neighboring projects.
Comment: Neighboring projects should not be a standard for comparison, especially when the neighboring projects are still in the proposal stages, and are as equally unacceptable as the Proposed Project. And to compare it to the one existing project, Lake Rancho Viejo, is an equally invalid standard since that project was designed and approved as a mobile home park., thus its small lot sizes.

Objective 6: Provide educational and recreational opportunities.
Comment: There is no assurance from Meadowood itself that their Proposed Project will provide any educational opportunities. Given current conditions, it is most likely that no

K-62 With regard to the staging area, parking is provided at the park site (Planning Area 3). Since the trail system is connected to the park, this area would function as the staging area.

K-63 The Proposed Project does not consider the adjacent community college facilities or the potential elementary school site in determining the adequacy of parkland. Please refer to response to comment K-60.

K-64 This comment suggests additional parkland be included in the design of the Proposed Project should the District decide not to construct the elementary school. If the Proposed Project constructs the additional residential homes in lieu of the District building a school, the Proposed Project will be required to either dedicate park land or pay addition PLDO fees.

K-65 The County disagrees with the assertion that the project alternatives were poorly selected and disagrees with the commenter's opinions regarding the analysis of the alternatives.

Section 15126.6(a) of the State CEQA Guidelines requires the discussion of "a reasonable range of alternatives to a project, or the location of a project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." The CEQA Guidelines provide several factors that should be considered with regard to the feasibility of an alternative: (1) site suitability; (2) economic viability; (3) availability of infrastructure; (4) general plan consistency; (5) other plans or regulatory limitations; (6) jurisdictional boundaries; and (7) whether the project applicant can reasonably acquire, control or otherwise have access to the alternative site (if an off-site alternative is evaluated).

Comment: The pathways and trails look good. However, our primary concern is a staging area that has been requested in the past and has not currently been detailed on the maps. Additionally, there is inadequate distribution of active and passive open spaces and parks within the high-density residential areas as presently represented. The community college and elementary school recreational areas should not be considered as part of the project, as they are customarily fenced and locked during after-school hours.

Comment: We recommend that the 12.7 acre area presently proposed for an elementary school be dedicated to become a park and open space area if no school is built after completion of housing project."

Comments from Individual Members of the Planning Group and the Public

Project Alternatives

Comment: The Project Alternatives were poorly selected and were evaluated in a questionable manner. This was evident based on the conclusions drawn about the various alternatives. For instance, the environmentally sensitive development option would increase the development unit counts to 1138 units or the finding that the 'no project alternative' would extinguish agriculture in the area. Fallbrook is comprised of many large lots with agricultural features and that is what makes our community unique. These inconsistencies in Section 5 of the DEIR (Project Alternatives) invalidate the DEIR on the grounds that the CEQA guidelines to identify and study viable alternatives have not been met.

K-65

Stated Goal of Meadowood's Project Alternatives: To evaluate the Project Alternatives based on their "ability to meet the basic objectives of the Proposed Project." (5-1)
Comment: This goal and this process assume that the basic objectives are valid. However, an analysis of the following four objectives for the Proposed Project, reveal that they are patently invalid:

Objective 1: Provide a variety of residential land uses to allow for residential development that … (is) consistent with the rustic charm of Fallbrook.
Comment: "Variety" is a standard that applies to the entire community of Fallbrook, not a standard to be applied to a single project. Meadowood as a single project is not entitled to "variety." To reject any Project Alternative based on its inability to provide "variety" is a false objection. Furthermore, there is nothing about any project of 800+ homes that can be "consistent with rustic."

Objective 2: Provide an opportunity for home ownership by increasing the housing supply with a variety of housing types in Fallbrook.
Comment: "Variety" is also misused as a standard in Objective 2 and is equally false as an objection to an alternative. "Increasing the housing supply" can be achieved by a broad range of increases in the supply of housing. To reject alternatives because they do not "increase the housing supply" is a false conclusion based on an undefined, and therefore unattainable, standard.

Objective 4: Provide for land uses that relate to the community in conjunction with the two neighboring projects.
Comment: Neighboring projects should not be a standard for comparison, especially when the neighboring projects are still in the proposal stages, and are as equally unacceptable as the Proposed Project. And to compare it to the one existing project, Lake Rancho Viejo, is an equally invalid standard since that project was designed and approved as a mobile home park., thus its small lot sizes.

Objective 6: Provide educational and recreational opportunities.
Comment: There is no assurance from Meadowood itself that their Proposed Project will provide any educational opportunities. Given current conditions, it is most likely that no

K-65 (cont.)

The six alternatives evaluated in detail within the alternative subchapter include:

1) No Project (No Development) Alternative
2) No Project (Development Consistent with the Adopted General Plan) Alternative
3) Groundwater Dependent Alternative
4) Reduced Grading Alternative
5) Proposed General Plan Update Draft Land Use Map Alternative
6) Proposed General Plan Updated Referral Map Alternative.

Each of these alternatives was selected in order to either: (1) avoid or minimize significant impacts associated with the Proposed Project, or (2) compare potential effects with General Plan Update alternatives, which are considered viable development options for planning purposes. These alternatives permit informed decision making and public participation because there is enough variation amongst the alternatives that provide a reasonable range. As required under CEQA, the alternatives would avoid or minimize significant impacts associated with the Proposed Project while also meeting the project objectives.

The Proposed Project was determined to result in potentially significant and unmitigated impacts related to aesthetics, air quality, and transportation and traffic. Furthermore, the Proposed Project was determined to result in potentially significant, yet mitigated, impacts to biological resources, agricultural resources, geology and soils, cultural resources, noise and hazards and hazardous materials. The six alternatives are compared to the impacts of the Proposed Project and are assessed relative to their ability to meet the basic objectives of the Proposed Project. Please refer to Table 5-1 for a breakdown of project alternatives impact comparison.

Comment: The pathways and trails look good. However, our primary concern is a staging area that has been requested in the past and has not currently been detailed on the maps. Additionally, there is inadequate distribution of active and passive open spaces and parks within the high-density residential areas as presently represented. The community college and elementary school recreational areas should not be considered as part of the project, as they are customarily fenced and locked during after-school hours.

Comment: We recommend that the 12.7 acre area presently proposed for an elementary school be dedicated to become a park and open space area if no school is built after completion of housing project."

Comments from Individual Members of the Planning Group and the Public

Project Alternatives

Comment: The Project Alternatives were poorly selected and were evaluated in a questionable manner. This was evident based on the conclusions drawn about the various alternatives. For instance, the environmentally sensitive development option would increase the development unit counts to 1138 units or the finding that the 'no project alternative' would extinguish agriculture in the area. Fallbrook is comprised of many large lots with agricultural features and that is what makes our community unique. These inconsistencies in Section 5 of the DEIR (Project Alternatives) invalidate the DEIR on the grounds that the CEQA guidelines to identify and study viable alternatives have not been met. K-65

Stated Goal of Meadowood's Project Alternatives: To evaluate the Project Alternatives based on their "ability to meet the basic objectives of the Proposed Project." (5-1)
Comment: This goal and this process assume that the basic objectives are valid. However, an analysis of the following four objectives for the Proposed Project, reveal that they are patently invalid: K-66

Objective 1: Provide a variety of residential land uses to allow for residential development that … (is) consistent with the rustic charm of Fallbrook.
Comment: "Variety" is a standard that applies to the entire community of Fallbrook, not a standard to be applied to a single project. Meadowood as a single project is not entitled to "variety." To reject any Project Alternative based on its inability to provide "variety" is a false objection. Furthermore, there is nothing about any project of 800+ homes that can be "consistent with rustic." K-67

Objective 2: Provide an opportunity for home ownership by increasing the housing supply with a variety of housing types in Fallbrook.
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Objective 6: Provide educational and recreational opportunities.
Comment: There is no assurance from Meadowood itself that their Proposed Project will provide any educational opportunities. Given current conditions, it is most likely that no

K-65 (cont.)

The environmentally sensitive alternative, referred to in the EIR as the "Reduced Grading Alternative," provides an alternative which reduces the development potential by clustering a total of 1,138 multi-family units within an 89.5-acre area. The remaining acreage would be preserved as biological and agricultural open space. This alternative is included to focus an alternative on minimization of significant impacts related to the Proposed Project footprint and sensitive biological resources. Sensitive plant species impacted by the Proposed Project would not be affected and significant impacts to southern riparian forest, Diegan coastal sage scrub, and non-native grassland would be reduced.

The EIR does not state that the "No Project" alternative would extinguish agriculture; rather Subchapter 5.3.2 of the Final EIR explains that the "No Project – Development Consistent with the Adopted General Plan" would not ensure the retention of groves in dedicated open space, like the Proposed Project, because under this alternative, development would be spread across the entire Project Site.

K-66 This comment is introductory to the comments which follow. Please see appropriate responses below.

K-67 The cited Objective 1 presents the Proposed Project's interest in assuring a variety (a number of different types) of residential land uses. This refers to meeting the needs of potential homeowners, by allowing both higher priced single-family homes, as well as lower priced multi-family options. The rustic charm applies to the allowable styles of architecture and site planning, and has no bearing on the actual number of units. Alternatives 1, 2, 3, 4, and 6 would not meet this Objective, as these Alternatives would not provide for the construction of different types or styles of dwelling units.

Comment: The pathways and trails look good. However, our primary concern is a staging area that has been requested in the past and has not currently been detailed on the maps. Additionally, there is inadequate distribution of active and passive open spaces and parks within the high-density residential areas as presently represented. The community college and elementary school recreational areas should not be considered as part of the project, as they are customarily fenced and locked during after-school hours.

Comment: We recommend that the 12.7 acre area presently proposed for an elementary school be dedicated to become a park and open space area if no school is built after completion of housing project."

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Objective 6: Provide educational and recreational opportunities.
Comment: There is no assurance from Meadowood itself that their Proposed Project will provide any educational opportunities. Given current conditions, it is most likely that no K-70

K-68 This Objective applies to the Proposed Project's interest in providing different residential types to meet the needs of a variety of homeowners. As discussed in response to comment K-67, any alternative which fails to provide the opportunity for diverse housing types would not meet this Objective.

K-69 This Objective was intended to ensure coordination between the property owners, to ensure that circulation, drainage, provision of services, design guidelines, and land uses are compatible. Alternative 1, the No Build Alternative, would not meet this objective.

K-70 This Objective seeks to provide future residents with those opportunities that coincide with recreational and educational facilities being close to home. Notwithstanding the decision of the BUESD to build an elementary school, the Proposed Project is located adjacent to the approved Palomar College Campus, to provide close-by academic opportunities. Additionally, the Proposed Project provides recreational facilities, including trails. Please further note that no alternatives were rejected as a result of their inability to meet this Objective.

elementary school will be built in the foreseeable future. It is invalid to reject any Project Alternative because it does not meet Objective 6. K-70

Grading
Comment: All the proposed alternatives violate the grading standards. K-71

Density
Comment: Meadowood needs to provide a reasonable Project Alternative that is based on the density recommendation proposed by the Fallbrook Community Planning Group ever since 2005: 650 dwelling units. *(This recommendation is found in the May 2005 FCPG motion, found on page 11, item 2).* K-72

All the currently proposed alternatives include either too many units or add a combination of high density units with commercial acreage or result in so few units that the County's goals for additional housing cannot be met. K-73

In addition, the project's "Multi-Family" designation is improperly used to describe single family units on 2,500 SF lots. K-74

Wastewater Treatment Plant
Comment: The prospect of installing a wastewater treatment plant immediately adjacent to a residential development is completely unacceptable. All the proposed alternatives (*and* the Proposed Project) include the wastewater treatment plant directly adjacent to a residential area. Instead, a wastewater treatment plant needs to be located in an industrial area. K-75

Avocado Groves
Comment: How will the 47.6 acres of avocado groves be maintained? How will pests on the trees be controlled? (Assuming you'd have to spray by helicopter - and need 100' from homes, this could be a potential environmental danger to residents.) K-76

What is the business plan for the groves? How will it be maintained? How will the fruit be marketed? If this becomes a responsibility of the Homeowners Association, what provisions are in place to facilitate and monitor this?

What is the compliance plan for water quality, especially taking into account the new agricultural waivers? (Nitrates will end up in the run-off and the landowner is held responsible, especially if reclaimed water is used.)

Water Availability:
Comment: The project has not received a commitment from Rainbow Water and it is inappropriate for the County to be considering the project without that commitment. Additionally in the water availability portion of the DEIR, the report describes that there will be more water availability in drought years than non-drought years.

School Site
Comment: The Bonsall School District requires a turnkey school to be built in the area of the Meadowood project. Meadowood is not planning on building a school. So the idea of just making a site available for a limited time puts the burden of constructing a school in the area on the taxpayers and that is inappropriate.

Density
Comment: Why didn't the developer just go ahead with the current approval on the land for 500 plus units which would have avoided all of the additional impacts the current proposal would cause?

Traffic
Comment: The Traffic portion of the Meadowood DEIR is inadequate, incorrect, incomplete, wrong, and/or misleading for several reasons and mistakes:

K-71 The County disagrees with this comment. All of the alternatives were designed to comply with all laws, regulations, policies, and standards. Furthermore, the comment does not specify, which grading standards were violated.

K-72 The County concurs with the comment and would like to note that Alternative 6, the General Plan Update Referral Map Alternative analyzed in Subchapter 5.7 of the Final EIR, proposes 536 units. This alternative is intended to closely match the FCPG's recommended density of 650 units.

K-73 Please see response to comment K-65 which addresses the rationale for the selection of alternatives.

K-74 The County disagrees with this comment. The 2,500-square-foot lots referred to in this comment are a type of development that resembles single-family lots in appearance, but which are constructed on a single lot, under one ownership, much like condominiums. Because of the similarity to condominium development, this type of development is designated as "multi-family."

K-75 Please refer to response to comment K-31, which addresses the Proposed Project design measure that would not place residences within 250 feet from the WWTP, as well as other design measures intended to protect homeowners from potential impacts associated with the WWTP.

K-76 The groves will be retained in an agricultural conservation easement and will be maintained by the HOA. As stated in Subchapter 3.5.3, Hazardous Materials Site (Guideline 5), Existing/Proposed Agricultural Use, of the Final EIR, "the HOA would have the control necessary to ensure that its ongoing operations and maintenance activities would utilize practices that would not endanger or inconvenience the residents."

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All the currently proposed alternatives include either too many units or add a combination of high density units with commercial acreage or result in so few units that the County's goals for additional housing cannot be met.

In addition, the project's "Multi-Family" designation is improperly used to describe single family units on 2,500 SF lots.

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Comment: How will the 47.6 acres of avocado groves be maintained? How will pests on the trees be controlled? (Assuming you'd have to spray by helicopter - and need 100' from homes, this could be a potential environmental danger to residents.)

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What is the compliance plan for water quality, especially taking into account the new agricultural waivers? (Nitrates will end up in the run-off and the landowner is held responsible, especially if reclaimed water is used.) K-78

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Comment: The project has not received a commitment from Rainbow Water and it is inappropriate for the County to be considering the project without that commitment. Additionally in the water availability portion of the DEIR, the report describes that there will be more water availability in drought years than non-drought years.

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K-77 As discussed in response to comment K-76 above, the HOA would be responsible for maintenance and operation of the grove. The Proposed Project will be conditioned to require the Master Home Owners Association for the Proposed Project, or an approved conservation entity, to be responsible for funding and/or contracting for maintenance services for the on-site agricultural lands. Such maintenance activities are required to be performed in perpetuity. At this stage, the specifics regarding a business plan or maintenance requirements have not been formulated.

K-78 As discussed, in Subchapter 4.2.2 of the Final EIR, the watershed associated with Proposed Project development is the Lower San Luis Rey Hydrologic Area, of the Bonsall Hydrologic Subarea (903.12). Runoff from the Proposed Project could affect runoff to Horse Ranch Creek, the San Luis Rey River, and ultimately the Pacific Ocean. According to the 2006 CWA 303(d) List, the lower 13 miles of the San Luis Rey River is impaired for chloride and Total Dissolved Solids (TDS), which occurs from urban stormwater exiting from runoff/storm sewers. The Pacific Ocean shoreline at the San Luis Rey River is impaired for bacteria, which usually occurs from animal wastes. These surface waters are not currently listed as impaired by nitrates.

Strategically located throughout the Proposed Project are seven proposed detention facilities. Each of these detention basins has been sized to meet the County's water quality requirements. All of the runoff from the single- and multi-family lots (with the exception of the northern drainage basin) will be conveyed to one of the seven detention facilities prior to being conveyed to Horse Ranch Creek. As for the northern drainage basin, located along Street E, the Proposed Project includes the use of mechanical water quality best management practices that are classified as a "high rate media filter." These filters, sized in accordance with the County's water quality requirements, will be inserted in the inlets along Street E. The filters will result in the treatment of nitrates and other pollutants with the use of a filtration media prior to being conveyed off-site.

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A site-specific Storm Water Management Plan has been prepared for the Proposed Project and is included in Appendix M-1 of the EIR. The SWMP discusses the water quality measures proposed for the Project Site in further detail. Additionally, the SWMP discusses the educational measures (regarding water quality) that will be performed with the homeowners and HOAs.

K-79 The Proposed Project is not within the sphere of influence of the RMWD or within the jurisdictional boundary of the RMWD. Therefore, absent a pre-annexation agreement, RMWD cannot provide a water availability commitment letter to the Proposed Project. The Proposed Project, however, is partially within the boundary of the SLRMWD with about 40 percent of the Project Site not within any municipal water district. SLRMWD does not have the legal authority to provide water, wastewater or recycled water services. It is for this reason that a MSR and SOI determination is required to be made by LAFCO to identify the most logical provider of such services. This process by LAFCO is required to follow approval of the Proposed Project by the County of San Diego Board of Supervisor. Please refer to response to comment H-3 for additional information.

K-80 The County disagrees that the EIR describes more water availability in drought years than non-drought years. Subchapter 4.6.2 of the Final EIR discusses that fact that both MET (wholesaler) and SDCWA (retailer) have drought management plans (DMP) in place. The DMPs identify actions to respond to different stages of drought, such as augmentation of supplies, conservation, curtailing of agricultural deliveries, purchasing water on the open market, and mandatory cutbacks of up to 50 percent in the case of a severe drought. SDCWA has also developed emergency supply strategies such as local emergency storage projects and transfer programs with other water districts in order to ensure reliable long-term water supplies for its member agencies. SDCWA also relies upon the

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Traffic
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K-80 fact that MET utilizes an integrated resource planning (IRP) process to evaluate the supplies necessary to meet demands over at least a 20-year period. The IRP must account for the recent and unprecedented five-year drought which influences the amount of water available to MET and its member agencies. The IRP shows that MET can maintain reliable supplies under conditions that existed in past dry periods through 2030 (UWMP 2005). Therefore, the EIR does not claim that there is more water available in drought years; rather, the EIR discusses the fact that the water agencies have plans in place to allow them to supplement shortages in drought years with alternative sources of water.

K-81 There is no nexus or mechanism for requiring the Proposed Project to construct the school. Once the BUESD accepts the property for a school site, the District would be responsible for actual construction of the school facilities.

K-82 While the County acknowledges the comment, it does not raise any specific issues regarding the EIR; therefore, no further response is required.

K-83 The County disagrees with this comment. Subchapter 2.3.4 of the Final EIR provides a cumulative traffic analysis. Cumulative projects were accounted for through a County created Modified Series 10 Year 2030 Model, which was developed for in conjunction with the County's General Plan Update traffic forecast. The Modified Series 10 Model accounts for the 95 cumulative projects listed in Chapter 3.5, Table 18, of the Traffic Impact Study. A summary of the cumulative projects is included in Table 2.3-8. The combined cumulative project volumes are shown on Figure 2.3-9.

-The Report projects total ADT of almost 9,000 vehicles for this project, but does not adequately include the possible traffic from the other projects in the NE Quarter of the I15/SR76 junction. K-83
-The Report does not realistically consider the cumulative overall effect of the 40,000 to 50,000 possible ADTs that will be caused by the total development on the 1,000 acres in this area. K-84
-The Report calculates Meadowood's project-generated traffic as being too small to need much more than TIF fees or proportionate cost-sharing for mitigation of the total cumulative traffic impacts. K-85
-Very little additional infrastructure is expected to be created to serve the traffic generated by this project.
-The Report uses CalTrans data which assumes less than ⅓ of the traffic to and from this project will travel north or south on I-15, and that split will be equally north or south. This apparently comes from a belief that San Diego is the likely destination of commuting and other travelers, but our local knowledge is that the Temecula area is much more important to our local residents (and presumably will be the same for the new people in the area) and therefore the northbound traffic volumes should be re-visited.
-The Northbound I-15 traffic will all flow through the East Mission/Old 395/I-15 interchange complex which CalTrans does not expect to improve within the next 30 years or more.
-The Report does not provide for any ramps to be built at the future diamond interchange to be located at the Stewart Canyon under-crossing of I-15. The Report ignores the continuous requests from the FCPG for construction of this interchange, (See item 6, page 11), and simply recites that there does not appear to be any "present need" for the intersection. Isn't the DEIR supposed to look to the future, not the present?
-The limited amount to be collected for "cumulative" impacts will presumably be spent all over the study area, which will also result in a lack of additional infrastructure. Given that the entire "3P" area at I-15/SR76 is substantially the same as development of a whole new town, it seems only reasonable that the funds to be generated from this area should be spent in the immediate area.

K-84 The County disagrees with this comment. The cumulative traffic approach for the Proposed Project did not include a summary of ADTs created by the total cumulative projects. Rather, the Modified Series 10 Traffic Model, with all known cumulative projects, was used to directly extract the cumulative volumes on the individual study roadways. Based on this approach the cumulative analysis does adequately consider the overall effect of anticipated traffic in the vicinity of the Proposed Project. (Overall, potentially significant cumulative impacts were identified at 19 intersections and 14 road segments (Table 2.3-21). These impacts will be mitigated through the applicant's participation on the County TIF Program, detailed in Subchapter 2.3.6 of the EIR.

K-85 The Proposed Project traffic generation is based on the local SANDAG rates. The Proposed Project will be required to contribute to the County TIF Program. The County TIF Program enables projects to complete CEQA compliance and move forward by contributing funds to an improvement Program, which represents paying a fair share. This payment contributes to the cost of future road improvements to obtain and maintain acceptable levels of service, which can erode over time, due to the increased traffic volume caused by the cumulative project impacts. The County's TIF Program goes into great detail in identifying anticipated development, the roads affected, roadway improvement costs and the existing and projected levels of service, on those roads.

The applicant's TIF payment mitigates for all Proposed Project cumulative impacts to roads.

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-Very little additional infrastructure is expected to be created to serve the traffic generated by this project. K-86
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-The Northbound I-15 traffic will all flow through the East Mission/Old 395/I-15 interchange complex which CalTrans does not expect to improve within the next 30 years or more. K-88
-The Report does not provide for any ramps to be built at the future diamond interchange to be located at the Stewart Canyon under-crossing of I-15. The Report ignores the continuous requests from the FCPG for construction of this interchange, (See item 6, page 11), and simply recites that there does not appear to be any "present need" for the intersection. Isn't the DEIR supposed to look to the future, not the present?
-The limited amount to be collected for "cumulative" impacts will presumably be spent all over the study area, which will also result in a lack of additional infrastructure. Given that the entire "3P" area at I-15/SR76 is substantially the same as development of a whole new town, it seems only reasonable that the funds to be generated from this area should be spent in the immediate area.

K-86 Please see response to Comment K-46, which discusses the basis of the Proposed Project's traffic analysis. This analysis anticipates the completion of the SR-76 infrastructure improvements that are associated with the Caltrans East Project. The mitigation measures proposed as M-TR-1 and M-TR-2, in Subchapter 2.3.5 of the EIR, would result in the following improvements: The segments of SR-76 between South Mission Road and Gird Road, and Sage Road and Old Highway 395 will be widened to four lanes under TransNet SR-76 Widening, and segment of SR-76 between Horse Ranch Creek Road and Couser Canyon Road will be widened to four lanes by Caltrans. These proposed improvements would properly mitigated direct impacts to these roadway segments. The construction of additional travels in each direction along SR-76 would require detailed engineering and construction beyond the capability of a single private applicant (including extensive conversion of existing land uses beyond their purview/ability). These improvements would constitute regional highway modifications of a magnitude and scope disproportionate to the current development project and outside the jurisdiction of the County to approve. The County, Caltrans, and the Project Applicant have met and conferred regarding Project impacts and appropriate mitigation, and the regional lead agency has accepted proposed mitigation as fully appropriate. Additionally, the applicant will participate in the TIF program, as a means to mitigate its share of cumulative impacts.

K-87 The approved traffic study for the Proposed Project used the County's Modified Series 10 Model, to distribute the Proposed Project traffic to the surrounding roadways. This Model provides an objective, computerized method for assigning traffic.

K-88 As discussed in the traffic study and EIR, the East Mission/Old 395/I-15 interchange was analyzed and documented to have cumulative impacts; however, these impacts are mitigated through TIF participation.

-The Report projects total ADT of almost 9,000 vehicles for this project, but does not adequately include the possible traffic from the other projects in the NE Quarter of the I15/SR76 junction.
-The Report does not realistically consider the cumulative overall effect of the 40,000 to 50,000 possible ADTs that will be caused by the total development on the 1,000 acres in this area.
-The Report calculates Meadowood's project-generated traffic as being too small to need much more than TIF fees or proportionate cost-sharing for mitigation of the total cumulative traffic impacts.
-Very little additional infrastructure is expected to be created to serve the traffic generated by this project.
-The Report uses CalTrans data which assumes less than ½ of the traffic to and from this project will travel north or south on I-15, and that split will be equally north or south. This apparently comes from a belief that San Diego is the likely destination of commuting and other travelers, but our local knowledge is that the Temecula area is much more important to our local residents (and presumably will be the same for the new people in the area) and therefore the northbound traffic volumes should be re-visited.
-The Northbound I-15 traffic will all flow through the East Mission/Old 395/I-15 interchange complex which CalTrans does not expect to improve within the next 30 years or more.
-The Report does not provide for any ramps to be built at the future diamond interchange to be located at the Stewart Canyon under-crossing of I-15. The Report ignores the continuous requests from the FCPG for construction of this interchange, (See item 6, page 11), and simply recites that there does not appear to be any "present need" for the intersection. Isn't the DEIR supposed to look to the future, not the present? K-89

-The limited amount to be collected for "cumulative" impacts will presumably be spent all over the study area, which will also result in a lack of additional infrastructure. Given that the entire "3P" area at I-15/SR76 is substantially the same as development of a whole new town, it seems only reasonable that the funds to be generated from this area should be spent in the immediate area. K-90

K-89 Please see response to comment K-12.

K-90 The County is the controlling body for determining TIF funded improvements. The traffic study cannot determine where or how the County will allocate TIF funds for improvements. The County's TIF program includes a list of deficient roadways that would be mitigated through TIF funds; however, anticipated timing is not provided. The traffic study cannot determine where or how the County will allocate funds for TIF improvements.

FCPG MOTION-*2020 Plans for the Northeast Quadrant of I-15 /SR76*
ADOPTED AT SPECIAL MEETING - MAY 2, 2005 (14 yes, 1 no)

1. We prefer the total land use density for dwelling units proposed by the "College Alternative" Plan, except that an additional 100 home sites should be included in the Pappas property.

2. We recommend continued work on the College Plan alternative to refine the allowed densities, with a targeted total, maximum yield of dwelling units to actually be built of not more than 1,400 residential dwelling units distributed as follows: Passerelle = 650, Pardee = 650, Pappas = 100.
The current County concept is on a General Plan Amendment level, which produces the "raw" number of allowable lots. It does not account for the density reductions that occur later in "project planning". Minimum lot sizes in each land use designation, setbacks, slopes, school and park areas, environmental restrictions, and other factors will normally reduce the number of lots in the Land Use Designations to the number of yielded (actual) lots to roughly 60 – 70% of the "raw number" density.

3. We recommend a maximum Floor Area Ratio of 40% of total land designated for Office Professional/ Light Industrial land. The sixty acres of office / industrial space proposed by Passerelle would then be limited to approximately one million square feet of building space.

4. We recommend that the Transit Node facilities should be located in the Pappas property, as follows: It should be located as close as possible to SR 76; It should be at least twenty acres in size, with parking for at least 1,500 cars; It should be landscaped with trees and bushes; And, it should be paid for by TransNet (the new ½ cent sales tax) or with gas tax or other public funds.

5. We recommend that only 100 home sites should be on the easterly part of the Pappas property, and there should not be any condos or apartments. The Commercial site (A) should not be more than eight acres, and (B) should be designed and designated as being "Neighborhood Serving Commercial", with no "regional" shopping characteristics, and (C) should have Floor Area Ratios that permit no more than 100,000 square feet of total building space, which will allow a commercial center substantially equivalent to the Major Market shopping center – with the addition of a drug store.

The balance of the Pappas property north of SR 76 (after portions used for commercial and Transit Node facilities) should be limited to Office Professional / Light Industrial uses with a Floor Area Ratio of not more than 40% of total designated land use. This motion does not address Pappas' property south of SR 76.

6. We strongly recommend the creation of a new Freeway interchange at the Canonita / Stewart Canyon crossing to relieve future traffic impacts at our two existing Freeway interchanges. A significant portion of these costs should be borne by the proposed developments.

7. We recommend that the road arrangement within the Pappas property should include a connection northeasterly to the central area of the Passerelle / Pardee projects.

8. We recommend that any "phasing plan" for actual development and construction in this quadrant should take into account the infrastructure improvements then in place on SR 76, both east and west of I-15.

Letter L

San Diego County Archaeological Society, Inc.

Environmental Review Committee

14 September 2009

To: Mr. Dennis Campbell
Department of Planning and Land Use
County of San Diego
5201 Ruffin Road, Suite B
San Diego, California 92123-1666

Subject: Draft Environmental Impact Report
Meadowood Project
GPA 04-002, SP 04-001, REZ 04-004, TM 5354, S 04-005, S 04-006, S 04-007, MUP 08-023, Log No. 04-02-004

Dear Mr. Campbell:

I have reviewed the cultural resources aspects of the subject DEIR on behalf of this committee of the San Diego County Archaeological Society.

The cultural resources reports in Appendix I are thorough and result in a comprehensive mitigation program that is appropriate given the significance of the loci of archaeological site SDI-682 that are present. Based on the information contained in Appendix I and the DEIR itself, we have the following additional comments: L-1

1. Per the County's standard conditions (*County of San Diego: Report Format and Content Requirements: Cultural Resources: Archaeological and Historic Resources)*, where curation is required it should be stated that the facility is to meet the requirements of 36 CFR 79, as well as being located in San Diego County. L-2
2. For the record, please confirm the current location of the collections previously excavated from SDI-682. L-3
3. We suggest that, if demolition of the Pankey Ranch structures could possibly disturb subsurface remains or deposits, archaeological monitoring should be required. L-4
4. Other than the above comments, we concur with the impact analysis and mitigation measures as specified. L-5

SEP 15 '09 PM 3:09

P.O. Box 81106 • San Diego, CA 92138-1106 • (858) 538-0935

L-1 The remarks are introductory and require no further response.

L-2 The County agrees with the comment. Mitigation measures CR-1, CR-3 and CR-5 in Subchapter 3.3.5 of the Final EIR have been revised to include that the measure "meets federal standards per 36 CFR Part 79".

L-3 Pursuant to telephone conversations with the cultural resources consultant, the collections from the D. L. True excavations at the Pankey Ranch are thought to be in the possession of the Pankey family. William Pankey, Jr.'s mother (Mrs. Rosemary Pankey) was a participant in some of the True excavations at the ranch.

L-4 The County agrees with the suggestion. The grading monitoring and mitigation currently required by the EIR includes the area where the structures are located.

L-5 Comment noted. No response is necessary.

SDCAS appreciates being included in the County's environmental review process for this project.

Sincerely,

James W. Royle, Jr., Chairperson
Environmental Review Committee

cc: ASM Affiliates
SDCAS President
File

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Letter M

SAN LUIS REY BAND OF LUISEÑO MISSION INDIANS

1889 Sunset Drive • Vista, California 92081
760-724-8505 • FAX 760-724-2172
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October 12, 2009

Dennis Campbell
Dept. of Planning and Land Use
County of San Diego
5201 Ruffin Rd., Ste. B
San Diego, CA 92123-1668

VIA ELECTRONIC MAIL
Dennis.Campbell@sdcounty.ca.gov

RE: Comment on Draft Environmental Impact Report and General Plan Amendment/Specific Plan Amendment for The Meadowood Project; GPA 04-002; SP 04-001; REZ 04-004; TM 5354; S 04-005; S 04-006; S 04-007; MUP 08-023; LOG NO. 04-02-004; SCH NO. 2004051028

Dear Mr. Campbell:

We, the San Luis Rey Band of Luiseño Mission Indians ("Tribe"), have received and reviewed the County of San Diego's ("County's") Draft Environmental Impact Report ("DEIR") and all of its supporting documentation as it pertains specifically to the protection and preservation of cultural resources located within the parameters of the Meadowood Project's ("Project's") property boundaries. After our review, it is clear that the recommendations propounded by ASM Affiliates, Inc. (ASM) have either been ignored by the author of the DEIR or have been regrettably unincorporated into Chapter 8.1.7 of the DEIR's Mitigation Measures for Impacts to Cultural Resources. The Tribe therefore is conflicted in its decision to oppose or support the Project and finds itself still very concerned about the preservation and protection of cultural, archaeological and historical sites within the area affected by the proposed Project. M-1 M-2 M-3

As you are aware, we are a San Diego County Tribe whose traditional territory includes the current cities of Oceanside, Carlsbad, Vista, Fallbrook, Bonsall and Escondido, among others. As you also know, we are always concerned about the preservation and protection of cultural, archaeological and historical sites within all these jurisdictions. We are concerned about the protection of unique and irreplaceable cultural resources and sacred sites which may be damaged or destroyed by the proposed Project given the current statements of mitigation. M-4

Although we are in favor of "capping" the Luiseño Village of Tom-Kav, as well as Loci A and Loci B, we do not favor the DEIR's exclusion of Native American Monitors during earth disturbing activities. The Tribe therefore formally requests that several M-5

M-1 Introductory comment noted. No response is necessary.

M-2 County staff reviewed and approved the ASM cultural resources report which correctly proposed mitigation for impacts to cultural resources as required by County Guidelines for Significance including site capping, temporary fencing during grading and open space easements. Portions of the cultural mitigation requirements were inadvertently left out of the EIR. All of the cultural mitigation measures have been revised to correct the oversight.

M-3 Comment noted. No response is necessary.

M-4 Comment noted. No response is necessary.

M-5 The main portion of the Luiseño Village of Tom-Kav is located on a hill to the east of the Project Site. No mitigation is proposed for the main village site, which will not be impacted. Loci A and B of this site are within the Proposed Project area and the mitigation calls for these sections to be capped. County staff did not intentionally exclude the presence of Native American monitors in the mitigation language of the EIR. The mitigation measures Subchapter 3.3.5, Table S-1 and the MMRP has been revised to include the required presence of and consultation with a Luiseno Native American representative.

elements be added and that additional conditions of approval be integrated into the Final EIR to ensure that this Project is handled in a manner consistent with the requirements of the law and which respects the Tribe's religious and cultural beliefs and practices.

M-5

A. Amendments Must Be Made To Chapter 8.1.7 "Mitigation for Impacts to Cultural Resources" to Satisfy the Recommendations Contained in the DEIR's Technical Appendix I - Cultural Resources Survey, Archaeological Testing and Historic Building Evaluation, Volume 1, April 2009, as well as in the Cultural Resources Preservation Plan in Appendix H, November 2008.

1. *M-CR-1 Must Be Amended to Include Language Requiring a Native American Monitor Be Present During the Grading Process Within the Area Believed to Hold the Rancho Monserrate Adobe.*

Currently, M-CR-1 states, "A professional archaeologist shall monitor grading in the vicinity of the mapped location of the Monserrate Adobe, as well as the area north of SR-76." We request that the language be amended to state, "A professional archaeologist and Native American shall monitor all grading in the vicinity of the mapped location of the Monserrate Adobe, as well as the area north of SR-76."

According to the Technical Appendix I of the Cultural Resources Survey, Archaeological Testing and Historic Building Evaluation, Volume 1 (April 2009) (page 79), "Given the potential for buried archaeological deposits and the purported occurrence of the Rancho Monserrate adobe house, grading monitoring is recommended . . [And] will involve the presence of a qualified archaeologist and Native American to observe all grading and other earth moving activities to ensure that not potentially CRHR eligible resources or human remains are discovered and inadvertently impacted." We agree with the recommendation and ask that the language of M-CR-1 be amended and incorporated into the Final EIR to include the presence of a Native American Monitor during the grading process of the area believed to hold the Rancho Monserrate Adobe.

M-6

2. *M-CR-2b Must Be Amended to Include Language Requiring a Native American Monitor Be Present During the Preparation and Implementation of the Temporary Fencing of the Luiseño Village of Tom-Kav, as well as Loci A and Loci B.*

At present, the DEIR states that in order to protect the Luiseño Village of Tom-Kav, also known as CA-SDI-682, and Loci A and B, Pardee Homes must prepare and implement a temporary fencing plan during "any grading activities with[in] 100 feet." The fence should be prepared in consultation with a qualified archaeologist and be to the satisfaction of the Director of the Department of Planning and Land Use. And that the fence must be installed under the supervision of the qualified archaeologist prior to any grading or brushing starting.

M-7

M-6 County staff agrees with this comment. Please see response to comment M-5.

M-7 The County agrees with this comment. Please see response to comment M-5.

Recently, a situation has arisen whereby sacred items of our Tribe have been unintentionally destroyed during the installation of fencing around known sacred areas. It is now the Tribe's position that in this Project and all other future projects, that whenever a fence is to be implemented and or erected around a sacred or culturally sensitive area, that a Native American Monitor be present to observe and ensure that no cultural resources be negatively impacted. Therefore, we request that the Final EIR include language requiring a Native American Monitor be present during the preparation and implementation of the temporary fencing around the Luiseño Village of Tom-Kav, Loci A and Loci B. M-7

3. *M-CR-3 Must Be Amended to Include Language Requiring a Native American Monitor to Be Present During Grading in the Vicinity of Loci C.*

At this time, the Tribe also requests that the language of M-CR-3 be amended to include the requirement of a Native American Monitor in conjunction with a professional archaeologist in monitoring all grading in the vicinity of Loci C, as well as the area north of SR-76. Loci C contains deeply buried archeological deposits and if grading is being recommended for the area, then the Tribe believes that a Native American Monitor must be present during the grading process, in addition to the presence of a professional archaeologist. M-8

4. *M-CR-4 Must Be Amended to Include Language Requiring a Native American Monitor During Grading and Subsurface Excavation in Off-Site Areas of the Project Area.*

M-CR-4 states that "a professional archaeologist shall monitor grading and subsurface excavation in off-site areas." If there are any earth disturbing activities that require grading or subsurface excavation in off-site locations of this Project, we insist that a Native American Monitor be notified and made apart of said monitoring. The area is rich with cultural resources as evidenced in Appendix G of the Addendum Report: Cultural Resources Survey for the Proposed Meadowood Off-Site Improvements (pages 2-3) and a Native American's presence is greatly justified. Therefore, it is the Tribe's position that M-CR-4 must be amended as suggested and be reflected in the Final EIR. M-9

5. *M-CR-5 Must Be Amended to Include Language Requiring a Native American Monitor to Be Present For Grading and Subsurface Excavation In On and Off-Site Areas Not Covered By M-CR-1 and M-CR-3.*

Right now, the Mitigated Measures for Impacts to Cultural Resources of the DEIR only state that a "professional archaeologist shall monitor grading and subsurface excavation in on- and off-site areas not covered by CR-1 and CR-3 (the Rancho Monserrate Adobe and Loci C, respectfully). The Tribe believes this to be inadequate and requests that the language of M-CR-5 be amended to require the presence of a Native American Monitor during all grading and subsurface excavation in on- and off-site areas not covered by CR-1 and CR-3. M-10

M-8 The County agrees with this comment. Please see response to comment M-5.

M-9 The County agrees with this comment. Please see response to comment M-5.

M-10 The County agrees with this comment. Please see response to comment M-5.

B. UNCOVERED ARTIFACTS OF LUISEÑO CULTURAL IMPORTANCE SHOULD BE RETURNED TO THE MOST LIKELY DESCEDENT.

Throughout the Mitigation Measures for Impacts to Cultural Resources of the DEIR repeated language was used to describe what should occur if a cultural resource, or archaeological artifact is discovered. It is as follows, "All artifacts recovered during all phases of survey, testing, and grading monitoring shall be curated according to current professional repository standards. The collections and associated records shall be transferred, including title, to an appropriate curation facility with San Diego County to be accompanied by payment of the fees necessary for permanent curation." The Tribe asks that to ensure the proper treatment of any cultural resources or Native American human remains that are uncovered during the course the Project's progress that the County and Pardee Homes agree to return those items to the Native American Tribe of the Most Likely Descendants. Any plans to curate any such items would blatantly disregard the respect due to these cultural resources. Instead, any such items or remains should be returned to the Most Likely Descendent ("MLD") as determined by the Native American Heritage Commission. This Project is located within the traditional and aboriginal territory of our Tribe and our sister tribes. The Tribe considers all cultural items found in this area to belong to their ancestors, and the ancestors of their sister tribes, rather than to the County or the Developers. This request should be included in the Final EIR.

M-11

C. A PRE-EXCAVATION AGREEMENT SHOULD BE ENTERED INTO AS A REQUIREMENT IN ORDER TO OBTAIN THE GRADING PERMIT FROM THE COUNTY.

The Tribe requests that Pardee Homes be required to enter into a Pre-Excavation Agreement with the Tribe prior to obtaining a grading permit. This agreement will contain provisions to address the proper treatment of any cultural resources or Native American human remains inadvertently uncovered during the course of the Project. The Pre-Excavation Agreement should be entered into prior to any ground-disturbing activities for this Project. The agreement will outline, to the satisfaction of the Tribe, the roles and powers of the Native American Monitors and the archaeologist. Such an agreement is necessary, as the County is aware, to guarantee the proper treatment of cultural resources or Native American human remains displaced during a project development. The Tribe requests that the Pre-Excavation Agreement be added as a requirement to obtain the Grading Permit from the County and be included in the Final EIR.

M-12

The San Luis Rey Band of Luiseño Mission Indians appreciates this opportunity to provide comments on the Meadowood Project. The Tribe hopes the County will adopt and amend the mitigation measures as requested and that they will appear in the Final EIR.

M-11 Under CEQA, the County has a legal obligation to curate and preserve recovered artifacts, except for human remains and associated grave goods, for their informational and educational potential. If human remains or associated grave goods are identified, the MLD may make recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98. The landowner or his authorized representative, in consultation with the Luiseño representative, rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance. In most cases when human remains are found, they, along with any associated grave goods that may be identified, are not curated, but reburied as close as possible to their original location, or returned to the MLD for reburial at a different location.

M-12 The County does not agree that a pre-excavation agreement is required in this case. The site consists of a historic component, the Pankey ranch complex, and a prehistoric component consisting of significant Pankey site CA-SDI-682. The main part of the Pankey site is to the east of the Proposed Project and will not be impacted. Three loci are identified and will be directly impacted (locus C) and indirectly impacted (loci A and B). Mitigation that includes capping, fencing and open space easement will protect and preserve loci A and B. Grading monitoring at locus C will ensure that should features or artifacts be uncovered during grading, they will be evaluated for significance. No further archaeological excavation, such as data recovery, is required. In addition, grading monitoring supervised by a County qualified archaeologist with a Native American representative on site will ensure that should Native American human remains be uncovered, or should significant artifacts or features are uncovered at any time during grading, the procedures for handling human remains, or other cultural features will take effect. Therefore, County staff cannot support the request for a pre-excavation agreement between the Developer and the Tribe for this Proposed Project.

B. UNCOVERED ARTIFACTS OF LUISEÑO CULTURAL IMPORTANCE SHOULD BE RETURNED TO THE MOST LIKELY DESCEDENT.

Throughout the Mitigation Measures for Impacts to Cultural Resources of the DEIR repeated language was used to describe what should occur if a cultural resource, or archaeological artifact is discovered. It is as follows, "All artifacts recovered during all phases of survey, testing, and grading monitoring shall be curated according to current professional repository standards. The collections and associated records shall be transferred, including title, to an appropriate curation facility with San Diego County to be accompanied by payment of the fees necessary for permanent curation." The Tribe asks that to ensure the proper treatment of any cultural resources or Native American human remains that are uncovered during the course the Project's progress that the County and Pardee Homes agree to return those items to the Native American Tribe of the Most Likely Descendants. Any plans to curate any such items would blatantly disregard the respect due to these cultural resources. Instead, any such items or remains should be returned to the Most Likely Descendent ("MLD") as determined by the Native American Heritage Commission. This Project is located within the traditional and aboriginal territory of our Tribe and our sister tribes. The Tribe considers all cultural items found in this area to belong to their ancestors, and the ancestors of their sister tribes, rather than to the County or the Developers. This request should be included in the Final EIR.

C. A PRE-EXCAVATION AGREEMENT SHOULD BE ENTERED INTO AS A REQUIREMENT IN ORDER TO OBTAIN THE GRADING PERMIT FROM THE COUNTY.

The Tribe requests that Pardee Homes be required to enter into a Pre-Excavation Agreement with the Tribe prior to obtaining a grading permit. This agreement will contain provisions to address the proper treatment of any cultural resources or Native American human remains inadvertently uncovered during the course of the Project. The Pre-Excavation Agreement should be entered into prior to any ground-disturbing activities for this Project. The agreement will outline, to the satisfaction of the Tribe, the roles and powers of the Native American Monitors and the archaeologist. Such an agreement is necessary, as the County is aware, to guarantee the proper treatment of cultural resources or Native American human remains displaced during a project development. The Tribe requests that the Pre-Excavation Agreement be added as a requirement to obtain the Grading Permit from the County and be included in the Final EIR.

The San Luis Rey Band of Luiseño Mission Indians appreciates this opportunity to provide comments on the Meadowood Project. The Tribe hopes the County will adopt and amend the mitigation measures as requested and that they will appear in the Final EIR. M-13

M-13 Comment noted. No response is necessary.

As always, we look forward to working with the County to guarantee that the requirements of the CEQA are rigorously applied to this Project and all projects. We thank you for your continuing assistance in protecting our invaluable Luiseño cultural resources. M-14

Sincerely,

Merri Lopez-Keifer

Merri Lopez-Keifer
Tribal Legal Counsel

cc: Melvin Vernon, Tribal Captain
Carmen Mojado, Secretary of Government Relations and President of Saving Sacred Sites

M-14 Closing comment noted. No response is necessary.

Letter N

GATZKE DILLON & BALLANCE LLP
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OF COUNSEL
MICHAEL SCOTT GATZKE
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October 12, 2009

By E-mail and U.S. Mail

Dennis Campbell
County of San Diego
Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego, California 92123

Re: *Comments on the Draft Environmental Impact Report for the Meadowood Project (SCH No. 2004051028, Log No. ER 04-02-004)*

Dear Mr. Campbell:

On behalf of Pappas Investments ("Pappas"), we submit this letter commenting on the adequacy of the Draft EIR for the above-referenced Meadowood project. As you know, Pappas, the owner of record of the property located west of the Meadowood project site, is currently processing development applications through the County of San Diego ("County") for its Campus Park West project. As lead agency for the Meadowood project, we request that the County make this letter part of the County's administrative record for the proposed Meadowood project and its associated environmental review process. N-1

Introduction

The proposed Meadowood project site, comprised of approximately 389 acres, is located just north of State Route 76 ("SR-76"), approximately one-quarter mile east of Interstate 15 ("I-15") in the Fallbrook Community Planning Area within the unincorporated area of San Diego County. The Draft EIR acknowledges that the proposed Meadowood project is located directly east and adjacent to the approved Palomar College campus project and the Campus Park (applicant, Passerelle) and Campus Park West (applicant, Pappas) projects, both of which are proposed planned communities active in the County's planning process. (DEIR, p. S-1.) The Draft EIR also acknowledges that the proposed Meadowood project "is one of four projects (including Campus Park, Palomar Community College District, and Campus Park West) that are currently planned in the northeast quadrant of I-15 and SR-76." (DEIR, p. 1-2.) Further, the Draft EIR acknowledges the proposed development that is associated with all four proposed projects -- Meadowood, Palomar College, Campus Park, and Campus Park West: N-2

> "The Proposed Project [Meadowood] would provide the addition of 886 housing units that would be located in an area identified by the SANDAG

N-1 Introductory comment is noted. No response is necessary.

N-2 The comment is an accurate overview of the project description.

Smart Growth Concept Map as a potential Special Use Center smart growth area. . . . *The quadrant* northeast of I-15 and SR-76 *also includes the Campus Park, Campus Park West, and Palomar College projects*. The Proposed Project and Campus Park combined would provide up to 1,058[1] multi-family housing units which would be relatively affordable. The Proposed Project, in conjunction with the other three projects in the quadrant, would provide jobs, housing, retail, and recreational opportunities within walking distance of one another and within close proximity to transit service. This would aid in addressing the air quality, traffic, increased energy consumption, and commute time impacts associated with single-use development types." (DEIR, p. 4-32, italics added.)

N-2

Both the proposed Specific Plan and Draft EIR for the Meadowood project also emphasize the "coordination" that has occurred with respect to the adjacent projects (*e.g.*, Campus Park and Campus Park West). For example, the Meadowood Specific Plan states that close coordination occurred with respect to infrastructure, public services, and land uses:

"The Proposed Project [Meadowood] was *closely coordinated* with adjacent property owners to ensure *coordination* of infrastructure and public service." (Specific Plan, p. 21, italics added.)

"The Campus Park and Campus Park West projects are proposed immediately adjacent to Meadowood on the west. The owners of all three projects have *coordinated* their land[] uses to ensure the development of a cohesive, full-service community, providing educational, commercial and public services." (Specific Plan, p. 41, italics added.)

Further, the Specific Plan claims that coordination took place with respect to the traffic circulation network shown for the proposed Meadowood project:

N-3

[1] Additionally, Section 4.4 of the Draft EIR (Population and Housing) discusses the "886 new single- and multi-family residences" proposed by the Meadowood project, but does not include information about the total number of residential units (single-family and multi-family) proposed for the Meadowood, Campus Park, and Campus Park West projects. Further, this cumulative information is not included in the Population section at pages 1-25 through 1-31. Therefore, the Draft EIR's Population and Housing section must be revised to reflect the total number of residential units for the known cumulative development in the immediate vicinity of the proposed Meadowood project.

N-4

N-3 Comment noted. This comment accurately reflects statements in the Proposed Project's Specific Plan and EIR regarding coordination with respect to the adjacent projects: Campus Park and Campus Park West. This comment does not raise any specific issues with the EIR; therefore no additional response is required.

N-4 Table 1-7, Cumulative Projects, provides a list of projects that were considered in developing the cumulative impacts discussion in the EIR. The list includes both the Campus Park and Campus Park West projects. The cumulative impacts associated with development of these projects are discussed throughout the EIR. Chapter 4-4, beginning on page 4-33 of the Final EIR, specifically addresses potential impacts associated with population and housing. Page 4-33 of the Final EIR has been revised to reflect the total number of residential units for the Campus Park and Campus Park West projects, concluding that the cumulative impacts to population and housing would be less than significant.

The County acknowledges that implementation of the Proposed Project, Campus Park and Campus Park West projects would result in the construction of up to 2,325 new housing units, As identified in Chapter 4.4, this is consistent with growth envisioned in this area as identified by the SANDAG Smart Growth Concept Map, RCP, and RTP; I-15 Corridor Subregional Plan; I-15/Highway 76 Master Specific Plan; and General Plan Update.

As required by CEQA Guidelines Section 15126(d), Chapter 1.8 of the EIR addresses whether or not the Proposed Project may be growth inducing. Specifically, this section discusses whether the Proposed Project would foster economic or population growth within the area and whether the Proposed Project would induce additional development. This section focuses only on the effects of the Proposed Project and is not intended, or required, to include cumulative information.

"Traffic circulation was *carefully coordinated* with adjacent landowners. . . . The Applicant has also worked extensively with . . . VCMWD, LAFCO . . . to *coordinate* a water and wastewater solution *for the Proposed Project*." (Specific Plan, p. 21, italics added.)

"The internal road system was *developed jointly* with the owners of Campus Park and Campus Park West Projects to ensure adequate circulation through all three projects." (Specific Plan, p. 27, italics added.)

N-4

Indeed, the project objectives identified in both the Specific Plan (p. 26) and the Draft EIR reference the three neighboring projects (Palomar College, Campus Park, and Campus Park West) and make coordination of land uses, public facilities, and infrastructure with the adjacent landowners "specific" objective of the Meadowood project:

"Provide for land uses that relate to the community *in conjunction with the three neighboring projects*." (DEIR, p. S-12 [Paragraph 4], italics added.)

"*Coordinate* public facilities and infrastructure with adjacent land owners and ensure availability concurrent with need." (DEIR, p. S-3 [Paragraph 7], italics added.)

N-5

Despite the explicit Meadowood project objectives, the applicant for the Meadowood project has not coordinated with Pappas, the owner of Campus Park West, to the degree implied with respect to important subregional infrastructure and public service issues for the immediate area. As explained below, there has been inadequate coordination with respect to: (a) wastewater infrastructure and, in particular, the Meadowood project's proposed wastewater treatment plant ("WWTP") and associated facilities; (b) traffic impacts and associated circulation network; (c) fire services; (d) drainage; (e) the Pankey Road alignment; and (f) associated trail alignment.

N-6

Coordination on these important issues is not only a specific Meadowood project objective, it is also critical from a County and LAFCO perspective in order to ensure development of a cohesive community in this immediate area. The lack of adequate coordination also explains the reason for the submittal of this comment letter. These important infrastructure and public facilities/services must be coordinated to avoid or minimize significant environmental impacts that will only be exacerbated without such coordination. As lead agency, the County is required to ensure this coordination in accordance with the California Environmental Quality Act ("CEQA"), Public Resources Code, §§21000, *et seq*., and the State

N-7

N-5 Comment noted. This comment accurately reflects objectives stated in the Proposed Project's Specific Plan and EIR regarding coordination with respect to the adjacent projects: Palomar College, Campus Park and Campus Park West. This comment does not raise any specific issues with the EIR; therefore no additional response is required.

N-6 The County disagrees with the comment. There has been sufficient coordination with respect to "important sub regional infrastructure." Responses to items specifically identified as a-f are addressed in the following responses, below:

a) Coordination of the WWTP is addressed in responses to Comments N-12 through N-16.

b) Traffic impacts and associated circulation network issues are addressed in responses to comments N-28 through N-43.

c) Fire services are addressed in responses to Comments N-44 through N-47.

d) Drainage issues are discussed in responses to comments N-48 through N-52.

e) The Pankey Road alignment is addressed in responses to Comments N-53 through N-56.

f) The trail alignment is discussed in response to comment N-56.

N-7 Comment is noted. The County acknowledges that as lead agency it is required to ensure coordination. Please see response to comment N-6.

CEQA Guidelines, Title 14, California Code of Regulations, §§15000, *et. seq.* ("CEQA Guidelines"). N-7

The WWTP Is Not Adequately Sized To Serve Meadowood And The Other Known Projects In The Immediate Vicinity Of The Meadowood Project

As stated in the Draft EIR, the Meadowood project includes a proposed WWTP, located at the southern entry of the site. (DEIR, pp. 1-2-1-3.) It is planned for the southern most portion of Meadowood Planning Area 1. (DEIR, p. 1-3, Figures 1-6, 1-11.) The proposed WWTP would consist of a conveyance pump station, treatment facilities, equalization and disinfection basins, recycled water storage tanks and pump station, wet weather ponds, solids handling building, and administrative facilities. (DEIR, p. 1-6.) The WWTP infrastructure, including the treatment plant site and wet weather pond project components, are summarized in Table 1-4a of the Draft EIR. (DEIR, p. 1-53.) The WWTP and associated infrastructure would be constructed within the boundaries of the proposed Meadowood project. (See, DEIR, p. 1-6; and Figure 1-6.) Figure 1-7 of the Draft EIR illustrates the proposed layout of the WWTP, wet weather ponds, and associated facilities. (DEIR, p. 1-38.) N-8

Although not clearly stated in the Draft EIR text, the proposed WWTP would be "sized to handle flow from the Meadowood development only." (See, DEIR, Appendix 0-3, Wastewater Service Alternative Analysis for Meadowood, prepared by R.W. Beck, Inc., p. 2-1 ["Beck Report"].) Although the WWTP and associated facilities are sized only for the proposed Meadowood project, the Draft EIR, nonetheless, asserts that in the future, the designated municipal water district that would operate the WWTP "may require that this WWTP be expanded, and this could be accommodated, with off-site wet weather ponds." (DEIR, p. 1-6.) N-9

However, there is nothing in the Draft EIR, Beck Report, or any other document to substantiate the claim that the proposed WWTP and associated facilities could be "expanded." There also is no information or analysis in the Draft EIR or Beck Report, explaining that the WWTP could be expanded to accommodate the other actively planned development projects in the immediate vicinity (*e.g.*, Campus Park/Campus Park West). The Draft EIR simply states that the expansion "could be accommodated, with off-site wet weather ponds." The Draft EIR should be revised to analyze: (a) which facilities would need to be expanded; (b) what those expanded facilities would "accommodate;" and (c) whether the expanded facilities could accommodate the other, known development projects in the immediate vicinity (*e.g.*, Campus Park/Campus Park West), which are currently part of the County's active planning process for this particular area. N-10

Later, the Draft EIR states that, depending upon the needs of the selected municipal water district, "a WWTP could be sized and sited to accommodate the Proposed Project and any nearby projects." (DEIR, p. 1-6.) However, this statement is unsubstantiated and contradicted by the Beck Report. On Page 3-2, the Beck Report states: N-11

N-8 Comment noted. This comment provides an accurate description from the EIR of the WWTP which is a component of the Proposed Project.

N-9 In response to this and other comments received during public review, the County facilitated the preparation of the County of San Diego Fallbrook Projects- Feasibility Study dated October 19, 2010 ("Feasibility Study")). The Feasibility Study was prepared to address and meet the anticipated needs of the subregion and to provide a coordinated, planned approach to wastewater service to the region. The Feasibility Study primarily reviewed the service demand for the Proposed Project in addition to that of the adjacent the Campus Park West project and other areas in the direct vicinity (See Feasibility Study, Figure 1).

The Final EIR was revised to reflect the conclusions of the Feasibility Study. Any text which refers to the on-site WWTP as being capable of expansion has been deleted to clarify that the Proposed Project would include an interim, individual project serving WWTP. The Feasibility Study concluded that the Campus Park West project site would be the most suitable location for a regional WWTP. While the Feasibility Study concluded the Campus Park West site to be the most appropriate for a regional WWTP, if one project is not approved or not built, the regional WWTP would not be necessary or feasible. Therefore, an allowance would be necessary for the installation and construction of an individual project serving WWTP. The applicant has agreed to make the necessary arrangements to ensure that wastewater is collected and treated at a regional facility in order to provide a coordinated, planned approach to wastewater service for the region.

N-10 Please see response to comment N-9. Regarding regional wastewater demand from the adjacent Campus Park project, subsequent to public review, the Campus Park project was refined to be served entirely by the RMWD.

"This alternative [*i.e.*, the preferred on-site WWTP] treats wastewater flows from Meadowood only, as *expansion* would *not be possible due to size limitations of the site.*" (Beck Report, p. 3-2, italics added.) N-11

The Draft EIR must be revised to substantiate that the proposed on-site WWTP and associated facilities can and will accommodate wastewater flows from not only Meadowood, but also the proposed Campus Park and Campus Park West projects. If the Draft EIR is not revised accordingly, then, under the project applicant's approach, there would be *three separate* WWTPs and associated facilities for the three projects -- all in close proximity to one another. This approach is inconsistent with sound planning practices; it would unnecessarily duplicate infrastructure and facilities needed for this particular subregion; and it would give rise to needless additional environmental impacts. N-12

Enclosed with this letter is a Fax memorandum, dated September 15, 2008, from Gary Arant, General Manager, of the Valley Center Water District ("VCWD"). In the memorandum, Mr. Arant provides VCWD's Board with information about requests for annexation by both the project applicant and Pappas, and includes related recommendations. Mr. Arant identifies several "very basic issues" that are "apparent," including the fact that:

"Besides requiring water service, both developments will require wastewater treatment and water reclamation services. *It would not be prudent to accept ownership and operational responsibility for two separate systems from developments in such close proximity and, as such, Pardee and Pappas would have to coordinate a joint treatment and disposal system.*" (VCWD Fax memorandum, p. 3 [Paragraph 3], italics added.)

The above memorandum was prepared for the Board meeting that occurred on September 15, 2008. At that Board meeting, Mr. Arant stated that VCWD will accept only one treatment plant to serve both projects. It is our understanding that the project applicant (Pardee) also received the same or similar direction from Mr. Arant at VCWD. Please confirm whether the applicant was apprised of VCWD's directive for the applicant and Pappas to coordinate a *joint* treatment and disposal system. Please also confirm that VCWD apprised the applicant well before release of the Draft EIR. N-13

Importantly, County representatives also were informed of VCWD's position. Pappas representatives have made several requests of County staff to facilitate discussions between the parties and VCWD in order to coordinate and resolve such issues. In response, we ask that the County confirm the facts set forth in this paragraph and that it respond to the question of why the County circulated the Draft EIR with a proposed WWTP that is to be sized to handle flow from the Meadowood project only. N-14

N-11 Please refer to response to comment N-9.

N-12 Please see responses to comments N-9 and N-10.

N-13 The County acknowledges that the VCMWD, if identified by LAFCO as the logical provider of water, wastewater and recycled water services in the area, would likely require a region-wide serving WWTP. Furthermore, the County acknowledges that both the County and the Proposed Project applicant (Pardee Homes) was in receipt of the VCMWD's Board recommendations. Please see responses to comment letter I which addresses all of the concerns raised by VCMWD. See also response to comment N-9.

N-14 Comment is noted. Meetings have been coordinated between the parties, County Staff and VCMWD representatives to discuss this subject. Additionally, please see response to comment N-9.

We also take issue with the Draft EIR's statement that:

> "In the future, if a more region-wide-serving wastewater facility is identified by the appropriate MWD, additional environmental review will be required for siting and sizing of this region-wide-serving wastewater facility." (DEIR, pp. 1-6-1-7.)

First, the County knows now that a subregional WWTP and associated facilities are needed to serve the three pending development projects in the vicinity (*i.e.*, Meadowood, Campus Park, and Campus Park West). As a result, the County cannot defer environmental review of an appropriate joint facility. Second, the Draft EIR itself identifies VCWD as the "preferred" provider for water and wastewater services. (DEIR, p. 1-12.) As the preferred provider, VCWD already has made clear it would not be prudent to accept ownership and operational responsibility of two separate WWTPs and associated facilities for developments in such close proximity. VCWD has advised both the project applicant (Pardee) and Pappas that:

> "Pardee and Pappas should, as appropriate, initiate discussions and planning on how to coordinate wastewater treatment and disposal facilities to jointly meet their respective needs, maximize the joint use of reclaimed water and other local non-potable sources, and construct facilities amendable to expansion to meet possible future needs in that area." (VCWD "Fax" memorandum, dated September 15, 2008, p. 5.)

VCWD's recommended coordination on wastewater treatment and disposal facilities to jointly meet the respective needs of Meadowood and other developments in the immediate vicinity (*e.g.*, Campus Park and Campus Park West) cannot be legitimately deferred under CEQA.

Further, deferral of environmental review is inappropriate, here, because the Draft EIR is addressing the project applicant's request for a "major use permit" for operation of the WWTP and associated facilities. (DEIR, p. 1-2.) In addition, the proposed WWTP is planned for the first planning area within the Meadowood project (*i.e.*, Planning Area 1). (See, DEIR, p. 1-3.) As such, the Draft EIR cannot defer environmental review of the cumulative impacts of the wastewater flows from Meadowood in conjunction with the other pending development projects in the immediate vicinity (*e.g.*, Campus Park and Campus Park West). Accordingly, the Draft EIR must be revised to identify and analyze such cumulative impacts, which are not yet addressed.

We also take issue with Section 4.6, Utilities, of the Draft EIR. In that section, the Draft EIR quotes the San Diego County General Plan Public Facility Element. (DEIR, p. 4-41.) The "primary goal" of the wastewater section of the General Plan's Public Facility Element "is to *provide* wastewater treatment and disposal *capacity to adequately meet future demands*." (*Id.*,

N-15 Please see responses to comments N-9 and N-10 as well as G-26 and G-27. The Final EIR was revised to delete the text stated in the comment. The Final EIR adequately analyzes all environmental impacts, including those associated with direct, cumulative and growth inducing impacts which may result from the individual project serving WWTP.

N-16 The County agrees that there should be a coordinated approach to water and wastewater services to the subregion. As a result and in response to this and other comments, the County facilitated the preparation the Feasibility Study identified above. The Feasibility Study was prepared to address and meet the anticipated needs of the subregion and to provide a coordinated, planned approach to water and wastewater service to the region. The Feasibility Study primarily reviewed the service demand for the Proposed Project in addition to that of the adjacent the Campus Park West project and other areas in the direct vicinity (See, feasibility Study, Figure 1).

The Feasibility Study concluded that the Campus Park West project site would be the most suitable location for a regional WWTP. While the Feasibility Study concluded the Campus Park West site to be the most appropriate for a regional WWTP, if one project is not approved or not built, the regional WWTP would not be necessary or feasible. Therefore, an allowance would be necessary for the installation and construction of an individual project serving WWTP. The applicant has agreed to make the necessary arrangements to ensure that wastewater is collected and treated at a regional facility in order to provide a coordinated, planned approach to wastewater service for the region.

We also take issue with the Draft EIR's statement that:

> "In the future, if a more region-wide-serving wastewater facility is identified by the appropriate MWD, additional environmental review will be required for siting and sizing of this region-wide-serving wastewater facility." (DEIR, pp. 1-6-1-7.)

First, the County knows now that a subregional WWTP and associated facilities are needed to serve the three pending development projects in the vicinity (*i.e.*, Meadowood, Campus Park, and Campus Park West). As a result, the County cannot defer environmental review of an appropriate joint facility. Second, the Draft EIR itself identifies VCWD as the "preferred" provider for water and wastewater services. (DEIR, p. 1-12.) As the preferred provider, VCWD already has made clear it would not be prudent to accept ownership and operational responsibility of two separate WWTPs and associated facilities for developments in such close proximity. VCWD has advised both the project applicant (Pardee) and Pappas that:

> "Pardee and Pappas should, as appropriate, initiate discussions and planning on how to coordinate wastewater treatment and disposal facilities to jointly meet their respective needs, maximize the joint use of reclaimed water and other local non-potable sources, and construct facilities amendable to expansion to meet possible future needs in that area." (VCWD "Fax" memorandum, dated September 15, 2008, p. 5.)

VCWD's recommended coordination on wastewater treatment and disposal facilities to jointly meet the respective needs of Meadowood and other developments in the immediate vicinity (*e.g.*, Campus Park and Campus Park West) cannot be legitimately deferred under CEQA.

N-16

Further, deferral of environmental review is inappropriate, here, because the Draft EIR is addressing the project applicant's request for a "major use permit" for operation of the WWTP and associated facilities. (DEIR, p. 1-2.) In addition, the proposed WWTP is planned for the first planning area within the Meadowood project (*i.e.*, Planning Area 1). (See, DEIR, p. 1-3.) As such, the Draft EIR cannot defer environmental review of the cumulative impacts of the wastewater flows from Meadowood in conjunction with the other pending development projects in the immediate vicinity (*e.g.*, Campus Park and Campus Park West). Accordingly, the Draft EIR must be revised to identify and analyze such cumulative impacts, which are not yet addressed.

N-17

We also take issue with Section 4.6, Utilities, of the Draft EIR. In that section, the Draft EIR quotes the San Diego County General Plan Public Facility Element. (DEIR, p. 4-41.) The "primary goal" of the wastewater section of the General Plan's Public Facility Element "is to *provide* wastewater treatment and disposal *capacity to adequately meet future demands*." (*Id.*,

N-16 (cont.)

The VCMWD has identified and accepted the Proposed Project's on-site WWTP as potentially an interim WWTP facility. These statements were made by the VCMWD under an assumption that the VCMWD would be identified by LAFCO as the wastewater service provider for the Proposed Project. Recently, the Board of Directors of VCMWD has adopted a resolution supporting annexation of the Proposed Project into the district. However, annexation cannot occur until the LAFCO process is completed following approval of the Proposed Project and certification of the Final EIR by the County of San Diego Board of Supervisors.

There has been no deferral under CEQA as to reasonably foreseeable project facilities and/or needs as a consequence of the Proposed Project because the various potential water and wastewater providers and associated facilities for the Project Site have been identified and analyzed as required by CEQA in Chapter 4.6, beginning on page 4-41 of the Final EIR.

N-17 In response to comments, the Final EIR was revised to reflect the conclusions of the Feasibility Study as discussed above in N-9 and N-10. Please also see responses to comments G-26 and G-27.

We also take issue with the Draft EIR's statement that:

> "In the future, if a more region-wide-serving wastewater facility is identified by the appropriate MWD, additional environmental review will be required for siting and sizing of this region-wide-serving wastewater facility." (DEIR, pp. 1-6-1-7.)

First, the County knows now that a subregional WWTP and associated facilities are needed to serve the three pending development projects in the vicinity (*i.e.*, Meadowood, Campus Park, and Campus Park West). As a result, the County cannot defer environmental review of an appropriate joint facility. Second, the Draft EIR itself identifies VCWD as the "preferred" provider for water and wastewater services. (DEIR, p. 1-12.) As the preferred provider, VCWD already has made clear it would not be prudent to accept ownership and operational responsibility of two separate WWTPs and associated facilities for developments in such close proximity. VCWD has advised both the project applicant (Pardee) and Pappas that:

> "Pardee and Pappas should, as appropriate, initiate discussions and planning on how to coordinate wastewater treatment and disposal facilities to jointly meet their respective needs, maximize the joint use of reclaimed water and other local non-potable sources, and construct facilities amendable to expansion to meet possible future needs in that area." (VCWD "Fax" memorandum, dated September 15, 2008, p. 5.)

VCWD's recommended coordination on wastewater treatment and disposal facilities to jointly meet the respective needs of Meadowood and other developments in the immediate vicinity (*e.g.*, Campus Park and Campus Park West) cannot be legitimately deferred under CEQA.

Further, deferral of environmental review is inappropriate, here, because the Draft EIR is addressing the project applicant's request for a "major use permit" for operation of the WWTP and associated facilities. (DEIR, p. 1-2.) In addition, the proposed WWTP is planned for the first planning area within the Meadowood project (*i.e.*, Planning Area 1). (See, DEIR, p. 1-3.) As such, the Draft EIR cannot defer environmental review of the cumulative impacts of the wastewater flows from Meadowood in conjunction with the other pending development projects in the immediate vicinity (*e.g.*, Campus Park and Campus Park West). Accordingly, the Draft EIR must be revised to identify and analyze such cumulative impacts, which are not yet addressed.

We also take issue with Section 4.6, Utilities, of the Draft EIR. In that section, the Draft EIR quotes the San Diego County General Plan Public Facility Element. (DEIR, p. 4-41.) The "primary goal" of the wastewater section of the General Plan's Public Facility Element "is to *provide* wastewater treatment and disposal *capacity to adequately meet future demands*." (*Id.*, N-18

N-18 The County disagrees with the comment. The Proposed Project would comply with these General Plan requirements. In response to this comment and in order to address the General Plan Public Facility Element to which the comment refers, thy County facilitated the preparation of the Feasibility Study, identified above. The Feasibility Study was prepared to address and meet the anticipated needs of the subregion and to provide a coordinated, planned approach to wastewater service to the region. The Feasibility Study primarily reviewed the service demand for the Proposed Project in addition to that of the adjacent the Campus Park West project and other areas in the direct vicinity (See, Feasibility Study, Figure 1). The Campus Park project would be served by the RMWD because the project site is entirely within the boundaries of the District.

The project is consistent with the recommendations and conclusions of the Feasibility Study both as to location and design. The Feasibility Study concluded that the Campus Park West project site would be the most suitable location for a regional WWTP. While the Feasibility Study concluded the Campus Park West site to be the most appropriate for a regional WWTP, if one project is not approved or not built, the regional WWTP would not be necessary or feasible. Therefore, an allowance would be necessary for the installation and construction of an individual project serving WWTP. The applicant has agreed to make the necessary arrangements to ensure that wastewater is collected and treated at a regional facility in order to provide a coordinated, planned approach to wastewater service for the region.

See also response to comment N-15 regarding cumulative demands from other projects in the area.

italics added.) It also seeks the "'*assurance* that privately-proposed wastewater treatment plants . . . meet the anticipated needs of the project *and subregion*.'" (*Id.*, italics added.) First, the proposed Meadowood project does not comply with these General Plan requirements because the Draft EIR fails to identify and analyze the wastewater treatment and disposal capacity to adequately meet Meadowood's demands, plus the related cumulative demands of other development pending in the immediate vicinity (*e.g.*, Campus Park and Campus Park West). Second, neither the Specific Plan nor the Draft EIR provide the General Plan-required assurance that the proposed WWTP will "meet the anticipated needs" of Meadowood and the projects in the subregion (*e.g.*, Campus Park and Campus Park West). N-18 N-19

In addition, General Plan Public Facility Policy Element 2.1 states that the County will regulate the use of privately proposed wastewater treatment plants "to ensure that they are properly located . . . " (DEIR, p. 4-41.) The project applicant's proposal to construct and operate a WWTP and associated facilities onsite, but which would serve only its development, ignoring the other pending development in the immediate vicinity, does not satisfy this policy. N-20

On page 4-55, the Draft EIR states, without support, that the location and design of the proposed WWTP "must be approved and be consistent with the LAFCO selected MWD's reclaimed water master plan" and that "[w]ith approval from the MWD, the Proposed Project would be consistent with these policies." However, the proposed location, design, and capacity of the WWTP must first be approved by the County. As proposed, the WWTP does not comply with County General Plan policies and, therefore, should not be approved. In addition, we know that the preferred provider (VCWD) will not accept ownership and operational responsibility for two separate wastewater/recycling systems from developments in such close proximity. We also know that the preferred provider has directed the project applicant and Pappas to coordinate a joint treatment and disposal system. As a result, the proposed Meadowood project's WWTP is not consistent with County General Plan policies and VCWD directives and recommendations. N-21

Also on page 4-55, the Draft EIR states, without support, that "[a]t this time, it cannot be determined whether [expansion of the WWTP would be required to serve other projects] or the timing, siting, or sizing of such a regional-serving WWTP." In response, it can and should be determined, now: (a) that the proposed WWTP and associated facilities must have the capacity to serve the other known projects in the immediate subregion (*e.g.*, Campus Park and Campus Park West); and (b) that the joint treatment and disposal system and associated facilities can be appropriately sited and sized to accommodate Meadowood as well as Campus Park and Campus Park West. N-22

We also take issue with the Draft EIR's conclusion that the proposed WWTP and associated facilities result in less-than-significant impacts. At present, the Draft EIR inadequately addresses the proposed WWTP and associated facilities in conjunction with the project and the cumulative need in the immediate vicinity. As a result, we cannot accurately determine if those impacts ultimately will result in less-than-significant impacts. N-23

N-19 Please see response to comment N-18.

N-20 Policy 2.1 is intended to "ensure that treatments plants are properly located, meet the sewer needs of the project, do not cause premature urbanization and create no unmitigable environmental effects". In order to address this policy, the General Plan requires findings to be made pursuant to Implementation Measure 2.1.1. The findings have been made and are included in the General Plan Compliance Report for the Meadowood Project (see Final EIR Appendix C-2, Appendix 1). The Feasibility Study was prepared to address findings (b) and (g) of Implementation Measure 2.1.1.and meet the anticipated needs of the subregion and to provide a coordinated, planned approach to wastewater service to the region. Please see responses to comments N-9 and N-18.

N-21 Please see responses to comments N-9, N-10, N-16, N-18 and N-20.

N-22 Please see responses to comments N-9, N-10, N-16, N-18 and N-20.

N-23 Please see responses to comments G-26 and G-27.

The Draft EIR also concludes, without support, that the cumulative demand for wastewater services would not be a significant impact. (DEIR, p. 4-55.) The problem is that the Draft EIR has not yet identified and analyzed the known project and cumulative demand for wastewater services in the immediate project vicinity. As a result, it is premature for the Draft EIR to conclude that there are no significant cumulative impacts -- the impacts were not identified and analyzed, so we do not yet know if there are any significant cumulative impacts. There may not be significant cumulative impacts; however, we do not know that based on the Draft EIR. The Draft EIR must be revised to identify and analyze both the project and the cumulative demand for wastewater services resulting from the known, pending development projects (*e.g.*, Campus Park and Campus Park West) in the immediate vicinity of the Meadowood project. N-24

Although not stated in the Draft EIR, the revised Draft EIR also must clarify whether the proposed WWTP site and all associated facilities are considered an "interim" facility. If so, the revised Draft EIR also must confirm that the Meadowood project applicant will commit to: (a) full fair-share participation in the bonds for the costs of a permanent facility; (b) reservation of land for the permanent facility; and (c) assurances that the permanent site and all associated facilities will accommodate all of the wastewater flows and recycled water needs of the Meadowood, Campus Park, and Campus Park West projects. N-25

In light of the above comments, we ask that the Draft EIR and Beck Report be revised to incorporate a WWTP and associated facilities with the capacity to address wastewater flows from not only Meadowood, but also the Campus Park and Campus Park West projects. Of course, Pappas and any other developments that benefit from the subregional WWTP will be responsible for paying their fair share toward the costs of the joint wastewater treatment/ recycling infrastructure and facilities. This point also should be covered in the revised Draft EIR. N-26

In addition to the comments above, please refer to the attached memorandum prepared by PBS&J, dated September 29, 2009. This memorandum provides separate and additional comments on the Draft EIR's water and wastewater technical studies. Please *separately* respond to each comment in the attached memorandum, apart from the comments provided in this letter. N-27

The Draft EIR And Associated Traffic Study Underestimates Campus Park West's Daily Trips; And In Doing So, Understates Cumulative Traffic Impacts

The Draft EIR states that it reviewed available cumulative projects in the area for purposes of both traffic volumes and roadway improvement construction and phasing. (DEIR, pp. 2.3-82.3-9.) However, the Meadowood traffic study (DEIR, Appendix E) underestimates the Campus Park West project size and land uses by approximately 10,921 ADT. As such, cumulative impacts and associated mitigation measures recommended in the Meadowood traffic N-28

N-24 Please see responses to comments G-26 and G-27.

N-25 In response to the comment, the Final EIR has been revised to clarify that the on-site WWTP would serve as an interim facility until the selected municipal water district determines what would be the treatment needs of the Project Site and region. The applicant has agreed to make the necessary arrangements to ensure that wastewater is collected and treated at a regional facility. This would include fair-share participation in the bonds for the costs of a permanent facility as well as the decommissioning of the interim on-site WWTP. The Feasibility Study concluded that the Campus Park West project site would be the most suitable location for a regional WWTP. As stated above, the Feasibility Study concluded the Campus Park West site to be the most appropriate for a regional WWTP; therefore, the Proposed Project would not reserve land for the permanent, regional facility.

N-26 Please refer to responses to comments N-9, and N-16for an explanation as to why it is premature to address a WWTP that would serve other projects. The commenter's opinion will be included in the project record.

N-27 These comments are addressed in responses to comments N-58 through N-68 below.

study and EIR are inadequate, particularly with respect to the SR-76 corridor in the vicinity of the I-15 interchange and Pankey Road, the main access point to the Campus Park West project. N-28

First, the Meadowood traffic study does not identify the assumed trip generation for each specific cumulative project, which itself is an omission that requires correction in the revised Final EIR. Because of this omission, the traffic consultant for the Campus Park West project was required to analyze the trip generation for Campus Park West in the Meadowood traffic study by using published SANDAG rates for each of the Campus Park West land use components listed in the Meadowood Draft EIR's cumulative project table. The land uses used in the Meadowood Draft EIR for Campus Park West are as follows: N-29

> "Mixed-use development including approximately 395 MFR units, 110,000 s.f. General Commercial, 10 acres of Highway Commercial and 300,000 s.f. Office Professional. Located mostly north of SR-76 with a portion south of SR-76." (DEIR, p. 2.3-35; Traffic Report, Appendix E, p. 64.)

However, these land uses understate the total gross trip generation for the Campus Park West project as included in the Meadowood traffic study (32,160 ADT). The correct land use components comprising the Campus Park West project are as follows:

Campus Park West Land Use Summary	
North of SR-76	**South of SR-76**
255,536 square feet of Commercial Uses (Community Shopping Center)	93,731 square feet of Neighborhood Commercial Uses
194,619 square feet Light Industrial	
307 units (condominium)	
50,000 square feet Mixed Use Retail	
50,000 square feet Mixed Use Office	
48 units Mixed Use Condominium	
152,339 square feet Light Industrial	

Based on the application of published SANDAG rates to the above combination of land uses for the Campus Park West project, the gross total trip generation is 43,081 ADT. As stated above, this is a difference of 10,921 ADT when compared to the analysis in the Meadowood Draft EIR (43,081 ADT - 32,160 ADT).

Because the SR-76 (Pala Road)/Pankey Road intersection is expected to operate at an unacceptable LOS F during both AM and PM peak hours under existing + cumulative

N-28 This comment indicates that the cumulative impact analysis underestimated the Campus Park West project land use and associated trip generation potential by 10,921 ADT. However, the comment is comparing **gross** ADT (43,081), as opposed to the fact that the entire project area is allowed a 30% internal capture rate in the cumulative scenario. Campus Park West has previously supplied the County with trip generation information that confirms its **net trip** assumption/estimates, and which indicated that the project would generate a total of 29,906 external trips. Therefore the Campus Park West external ADT estimation is more accurately projected to be around 30,000, as used in the Proposed Project's EIR/TIS analysis, and which compensates for the 10,921 ADT difference. The Proposed Project used the Campus Park West project description information available at the time of the preparation of the TIS and subsequently has been approved (with coordination) by the County and Caltrans, and thus does not require reevaluation. Based on this analysis impacts and mitigation associated with cumulative traffic is adequate.

N-29 According to the County of San Diego traffic significance criteria (page 13 under the Report Format & Content Requirements Section); two options exist to assess cumulative impacts, 1) list of projects approach or 2) general plan summary approach. As stated on page 74 of the Proposed Project's traffic study "Cumulative projects were accounted for through a general plan summary approach where SANDAG provided a Series 10 Year 2030 model…" Therefore, individual cumulative project trip generations and assignments are not required because the SANDAG traffic model calculates all of the cumulative project trip generations and assigns the total traffic to the roadways. Furthermore, the Proposed Project used the accurate Campus Park West project description information available at the time of its traffic study and subsequently has been approved (with coordination) with the County and Caltrans and thus does not require reevaluation. For these reasons, the Proposed Project's traffic study is correct in the representation and analysis of cumulative projects.

study and EIR are inadequate, particularly with respect to the SR-76 corridor in the vicinity of the I-15 interchange and Pankey Road, the main access point to the Campus Park West project.

First, the Meadowood traffic study does not identify the assumed trip generation for each specific cumulative project, which itself is an omission that requires correction in the revised Final EIR. Because of this omission, the traffic consultant for the Campus Park West project was required to analyze the trip generation for Campus Park West in the Meadowood traffic study by using published SANDAG rates for each of the Campus Park West land use components listed in the Meadowood Draft EIR's cumulative project table. The land uses used in the Meadowood Draft EIR for Campus Park West are as follows:

> "Mixed-use development including approximately 395 MFR units, 110,000 s.f. General Commercial, 10 acres of Highway Commercial and 300,000 s.f. Office Professional. Located mostly north of SR-76 with a portion south of SR-76." (DEIR, p. 2.3-35; Traffic Report, Appendix E, p. 64.)

However, these land uses understate the total gross trip generation for the Campus Park West project as included in the Meadowood traffic study (32,160 ADT). The correct land use components comprising the Campus Park West project are as follows:

Campus Park West Land Use Summary	
North of SR-76	**South of SR-76**
255,536 square feet of Commercial Uses (Community Shopping Center)	93,731 square feet of Neighborhood Commercial Uses
194,619 square feet Light Industrial	
307 units (condominium)	
50,000 square feet Mixed Use Retail	
50,000 square feet Mixed Use Office	
48 units Mixed Use Condominium	
152,339 square feet Light Industrial	

N-30

Based on the application of published SANDAG rates to the above combination of land uses for the Campus Park West project, the gross total trip generation is 43,081 ADT. As stated above, this is a difference of 10,921 ADT when compared to the analysis in the Meadowood Draft EIR (43,081 ADT - 32,160 ADT).

N-31

Because the SR-76 (Pala Road)/Pankey Road intersection is expected to operate at an unacceptable LOS F during both AM and PM peak hours under existing + cumulative

N-32

N-30 Please see response to comment N-28.

N-31 Please see response to comment N-28.

N-32 Please see response to comment N-28.

conditions, the underestimation of an additional 10,000+ADT must be evaluated. (DEIR, pp. 2.3-9, 2.3-44.) N-32

Further, the proposed Project will have a significant cumulative impact on the intersection. (DEIR, p. 2.3-11, 2.3-47.) The mitigation proposed for these impacts is for the applicant to contribute to the County's Traffic Improvement Fees ("TIF") Program, as required by Mitigation Measures M-TR-3. (DEIR, p. 2.3-14.) Additionally, the Draft EIR mentions the necessary installation of a traffic signal and added lanes at the SR-76 (Pala Road)/Pankey Road intersection, to be implemented using TIF funding. (DEIR. p. 2.3-11, 2.3-57, Figure 2.3-11.) Even with implementation of this mitigation, the SR-76 (Pala Road)/Pankey Road intersection will remain at a LOS D during PM peak hours in the Horizon Year (2030). (DEIR, p. 2.3-50. 2.3-53.) Therefore, it is imperative that the Draft EIR address whether the unaccounted for 10,921 ADT will affect the level of service for this intersection in the Horizon Year. N-33

N-33 Please see response to comment N-28.

Both the Meadowood traffic study and Draft EIR analysis must be revised to ensure that cumulative traffic from the Campus Park West project is not understated, and that any reliance on the TIF contribution in Mitigation Measure TR-3 or additional improvements (such as capacity provided by the Granite Road Widening Project) will still mitigate the cumulative traffic impacts. N-34

N-34 Please see response to comment N-28.

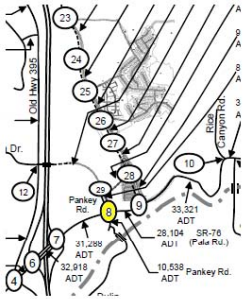
The Draft EIR And Associated Traffic Study Incorrectly Analyze Cumulative Project Trip Distribution At The Pankey Road/SR-76 Intersection

Related to the discussion above, the Meadowood Draft EIR and traffic study not only understate cumulative peak hour traffic for the Campus Park West project, but also incorrectly distribute Campus Park West trips at the Pankey Road/SR-76 intersection. This results in a flawed and understated analysis of geometric improvements required as mitigation. N-35

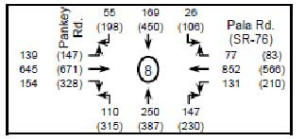
N-35 Please see response to comment N-28.

The Pankey Road/ SR-76 intersection provides primary access to the Campus Park West site. This intersection is analyzed as "Intersection #8" in the traffic report. (See Appendix E, p. 80, Figure 22.) In the matrix of Existing + Cumulative intersection traffic volumes, Intersection #8 assumes an unreasonably strong distribution of traffic oriented to/from the region south of SR-76 on Pankey Road at that intersection, particularly from eastbound SR-76. Similarly, traffic volumes on Pankey Road approaching SR-76 also show an unreasonably large distribution oriented southbound on Pankey Road, south of the SR-76. See below: N-36

N-36 Please see response to comment N-28.



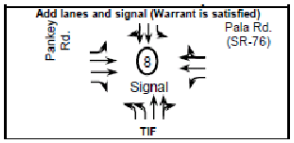
(Traffic Study, Appendix E, p. 79.)



(Traffic Study, Appendix E, p. 80, Figure 22.)

Although the existing residential subdivision located south of SR-76 on Pankey Road would generate background trips on this south leg (see Appendix E, p. 27, 29), the Campus Park West project (the majority of which is located north of SR-76, as discussed above) will generate a substantial number of primary trips, many of which would utilize and be distributed through the Pankey Road/SR-76 intersection. A significant portion of these trips will move northbound through the Pankey Road/SR-76 intersection from whichever direction they approach. N-37

Consequently, the apparent distribution of Campus Park West traffic between north and south is biased to the south, considering the Campus Park West land use summary. This faulty analysis affects not only the impacts to the intersection, but the geometric improvements required for appropriate mitigation. For example, the volume of vehicles moving eastbound on SR-76, turning left (northbound) on Pankey Road (139 AM, 147 PM) does not practicably represent the demand associated with the Campus Park West project. Further, and perhaps more importantly, the proposed mitigation measures showing a single eastbound left-turn lane would not suffice to provide sufficient capacity in either the near-term or long-term conditions. (See Appendix E, p. 120, Figure 27.) N-38 N-39



N-37 Please see response to comment N-28. The Proposed Project traffic study correctly represents cumulative volumes at the intersection of SR-76/Pankey Road based on information provided at the time the Proposed Project TIS was completed.

N-38 This comment is addressed as indicated in response to comment N-28. The Proposed Project TIS correctly represents cumulative volumes at the intersection of SR-76/Pankey Road based on information provided at the time the Proposed Project traffic study was completed.

N-39 The Proposed Project TIS was prepared with the most current cumulative information available when the study was prepared. Based on such cumulative information, a single eastbound left-turn lane is calculated to adequately service the traffic volumes from the SANDAG traffic model representing cumulative volumes.

In fact, dual eastbound left-turn lanes would be required. This would require widening the eastbound approach at this intersection to accommodate the additional width. Such an improvement would have cascading effects on the SR-76 corridor in both directions with respect to centerline alignment, transition and taper requirements, and the associated widening of the adjacent concrete bridge structure to the west, as well the need to assess potential impacts to adjacent habitat along SR-76 if approach widening is required. N-40

The revised analysis also may exceed what the County considers to be included in its TIF improvements, which the Meadowood project cites as the source of mitigation for this cumulative impact. (DEIR, p. 2.3-14.) If these improvements listed above are found to be required once the Meadowood traffic study is amended, and the County TIF does not include these additional measures, then the Meadowood traffic study cannot rely on the TIF to mitigate the cumulative impact, and must provide additional funding to ensure the intersection is built to accommodate forecasted traffic. N-41

Further, considering the overall project trip generation for the Campus Park West project (43,081 ADT), these peak hour volumes overall would be far larger than those reflected in Figure 22. Thus, the Meadowood traffic study understates the cumulative traffic peak hour contribution of the Campus Park West project. N-42

Both the Meadowood traffic study and EIR must be revised to adequately analyze Campus Park West traffic volumes at the Pankey Road/SR-76 Intersection to ensure that: (1) peak hour volumes are consistent with the trip generation estimates for Campus Park West as proposed; and (2) the cumulative traffic distribution through the intersection accurately reflects that the majority of Campus Park West project traffic would be oriented north of the SR-76. Additionally, both the Meadowood traffic study and EIR should reevaluate the mitigation measures proposed for this intersection to ensure that, at a minimum, dual eastbound left-turn lanes are required, and to address the feasibility of this mitigation measure with respect to the County's TIF requirements. If the required mitigation (*e.g.*, dual lefts, approach widening, bridge reconstruction, etc) is outside of the scope of the TIF, then both the Meadowood traffic study and EIR must be revised to provide the appropriate fair-share towards the ultimate cost of improvements to this intersection. N-43

The Draft EIR Does Not Adequately Analyze The Provision Of Fire Services For Meadowood And Other Known Cumulative Projects In The Immediate Vicinity

The Draft EIR does not adequately analyze fire services for the project and the other known cumulative development projects in the immediate project vicinity (*e.g.*, Campus Park and Campus Park West). First, the Draft EIR states that a "will serve" letter has been provided by the North County Fire Protection District ("NCFPD"). (DEIR, p. 4-27.) However, there is no "will serve" letter included in the Draft EIR or appendices. As a result, the Draft EIR's statement concerning issuance of a "will serve" letter is not substantiated. N-44

N-40 Please see response to Comment N-28. The Proposed Project TIS was prepared with the most current cumulative information available when the study was prepared. If the revised Campus Park West traffic requires dual-left turn lanes, then it is the responsibility of the Campus Park West applicant to ensure any direct impacts are mitigated to below a level of significance, including dual left-turn lanes.

N-41 Please see response to comment N-28. The Proposed Project TIS was prepared with the most current cumulative information available when the study was prepared. If the revised Campus Park West traffic exceeds the currently identified TIF improvements, then the Campus Park West project will be required to update the TIF improvements. The Proposed Project traffic study can rely on the TIF as mitigation because the cumulative analysis was based on the most current information available when the traffic study was prepared. No additional funding is required by the Proposed Project because the cumulative projects were correctly represented.

N-42 Please see response to comment N-28.

N-43 Please see response to comment N-28. Additionally, it is the responsibility of the Campus Park West applicant to determine if the Campus Park West project as defined after the approval of the Proposed Project traffic study will require dual eastbound left-turn lanes at SR-76/Pankey Road.

N-44 The County disagrees with this comment. EIR Chapter 4.3.3, beginning on page 4-28 of the Final EIR, outlines the cumulative impact analysis to public services, including fire services. As stated, design measures incorporated into surrounding cumulative projects will ensure any impacts are reduced to below a level of significance.

The EIR accurately states that the applicant has on file a Project Facility Availability (PFA) form for fire protection services from the North County Fire Protection District. The Project Facility Availability form or “will serve letter”—from 2006—with the District’s conditions was inadvertently omitted from the EIR. While this letter has now expired, an updated PFA form and has been included in the Final EIR as Appendix J-3.

Additionally, the Draft EIR states that the "Project Site is proposed to be annexed to the NCFPD which *has the capacity to serve the site.*" (DEIR, p. 4-29; see also pp. S-2, S-3, S-5, 4-25; and Fire Protection Plan, Appendix F-2, p. 1.) However, the Draft EIR provides no analysis as to whether the NCFPD has capacity to serve the proposed Project site *in addition to* the two actively planned projects (Campus Park and Campus Park West) and the approved Palomar College project. This cumulative analysis must be included in a revised EIR. N-45

Further, the proposed Fire Protection Plan is not consistent with the Draft EIR. It states that the project applicant is currently involved in discussions with the NCFPD regarding potential *provision or upgrade* of fire suppression facilities and/or equipment to address additional infrastructure and/or response demands that may be placed upon the District as a result of the proposed Meadowood project. (Fire Protection Plan, Appendix F-2, p. 1.) However, neither the Draft EIR nor the Fire Protection Plan identify or analyze these upgrades or how they will be obtained or implemented. In short, the Draft EIR does not disclose whether new fire protection/suppression facilities are needed, or whether upgrades are required for existing fire protection/ suppression facilities and/or equipment. These are the very issues that should have been addressed in the Draft EIR. Accordingly, the Draft EIR should be revised to reflect this information and analysis. N-46

For the County's information, Pappas has engaged in discussions with NCFPD representatives concerning the proposed Campus Park West project. Pappas also has received a letter from NCFPD indicating that existing fire protection/suppression facilities are inadequate to serve the proposed project in the I-15/SR-76 quadrant, which begs the question: How can existing fire protection/suppression infrastructure/facilities be "inadequate" for the Campus Park West project, but "adequate" for the Meadowood project? In short, these issues require coordination among the landowners in this quadrant, including the applicant of the proposed Meadowood project, and the Draft EIR will require revision to identify and analyze all of these issues. N-47

The Draft EIR Does Not Accurately Describe the Meadowood Project's Drainage Impacts N-48

Based on a review conducted by Project Design Consultants, the Meadowood Preliminary Drainage Study, dated August 18, 2009, (Draft EIR, Appendix M-2) makes several inaccurate statements regarding drainage impacts on the proposed Meadowood project.

First, Rick Engineering's floodplain model for Horse Ranch Creek shows peak 100-year flows overtopping SR-76 and inundating a significant portion of the Campus Park West property under existing conditions. Project Design Consultants has surveyed the existing SR-76 bridge at the Horse Ranch Creek crossing, and has completed a separate floodplain study for the creek. The surveyed cross-section geometry indicates that the bridge crossing has much more cross-sectional area than that modeled by Rick Engineering. Therefore, the bridge capacity was

N-45 The County disagrees with this comment. The Campus Park and Palomar College projects are already within the District's boundary for fire service. Additionally, as stated in response to comment N-44, Final EIR Chapter 4.3.3 outlines the cumulative impact analysis to public services, including fire services. As stated therein, design measures incorporated into surrounding cumulative projects will ensure any impacts are reduced to below a level of significance.

N-46 The County disagrees with this comment. The NCFPD is currently identifying its future needs to serve anticipated development. The project applicant is participating in discussions regarding these needs with the NCFPD. As specific facilities and/or equipment that may be required are currently unknown, it is impossible to analyze such.

Furthermore, there is currently a proposed annexation underway for 5,600 acres, including the Project Site. This annexation was initiated as part of the Orange Grove Energy power plant project, proposed by J-Power USA and located on a San Diego Gas & Electric site. As part of this annexation, extensive discussion will occur regarding the District's future needs. The project applicant is prepared to contribute its fair share toward these improvements, once identified.

N-47 As stated in response to comment N-44, the Final EIR Chapter 4.3.3 outlines the cumulative impact analysis to public services, including fire services and concludes that cumulative impacts would be less than significant. Additionally, the project applicant is currently engaged in conversations with the NCFPD regarding its future facilities/equipment needs. Once these needs are identified, the applicant is prepared to contribute its fair share toward these improvements.

N-48 This comment introduces statements regarding the Preliminary Drainage Study prepared for the Proposed Project. Responses to these comments are provided in N-49 through N-52 below.

Additionally, the Draft EIR states that the "Project Site is proposed to be annexed to the NCFPD which *has the capacity to serve the site*." (DEIR, p. 4-29; see also pp. S-2, S-3, S-5, 4-25; and Fire Protection Plan, Appendix F-2, p. 1.) However, the Draft EIR provides no analysis as to whether the NCFPD has capacity to serve the proposed Project site *in addition to* the two actively planned projects (Campus Park and Campus Park West) and the approved Palomar College project. This cumulative analysis must be included in a revised EIR.

Further, the proposed Fire Protection Plan is not consistent with the Draft EIR. It states that the project applicant is currently involved in discussions with the NCFPD regarding potential *provision or upgrade* of fire suppression facilities and/or equipment to address additional infrastructure and/or response demands that may be placed upon the District as a result of the proposed Meadowood project. (Fire Protection Plan, Appendix F-2, p. 1.) However, neither the Draft EIR nor the Fire Protection Plan identify or analyze these upgrades or how they will be obtained or implemented. In short, the Draft EIR does not disclose whether new fire protection/suppression facilities are needed, or whether upgrades are required for existing fire protection/ suppression facilities and/or equipment. These are the very issues that should have been addressed in the Draft EIR. Accordingly, the Draft EIR should be revised to reflect this information and analysis.

For the County's information, Pappas has engaged in discussions with NCFPD representatives concerning the proposed Campus Park West project. Pappas also has received a letter from NCFPD indicating that existing fire protection/suppression facilities are inadequate to serve the proposed project in the I-15/SR-76 quadrant, which begs the question: How can existing fire protection/suppression infrastructure/facilities be "inadequate" for the Campus Park West project, but "adequate" for the Meadowood project? In short, these issues require coordination among the landowners in this quadrant, including the applicant of the proposed Meadowood project, and the Draft EIR will require revision to identify and analyze all of these issues.

The Draft EIR Does Not Accurately Describe the Meadowood Project's Drainage Impacts

Based on a review conducted by Project Design Consultants, the Meadowood Preliminary Drainage Study, dated August 18, 2009, (Draft EIR, Appendix M-2) makes several inaccurate statements regarding drainage impacts on the proposed Meadowood project.

First, Rick Engineering's floodplain model for Horse Ranch Creek shows peak 100-year flows overtopping SR-76 and inundating a significant portion of the Campus Park West property under existing conditions. Project Design Consultants has surveyed the existing SR-76 bridge at the Horse Ranch Creek crossing, and has completed a separate floodplain study for the creek. The surveyed cross-section geometry indicates that the bridge crossing has much more cross-sectional area than that modeled by Rick Engineering. Therefore, the bridge capacity was

N-49

N-49 The County has reviewed the Preliminary Drainage Study prepared for the Proposed Project and concurs with its findings. To accurately reflect all of the existing improvements that are included in the hydraulic model for Horse Ranch Creek, Rick Engineering Company performed several steps. First, as-built plans for the SR-76 bridge were obtained from Caltrans. Copies of these plans are located in Appendix I of the Preliminary Drainage Study. From the plans it was determined that the bridge has a cross-sectional area of approximately 670 square feet. Next, Rick Engineering Company coordinated with URS, who was the engineer associated with the widening of SR-76. URS performed hydraulic analyses for the San Luis Rey River and Horse Ranch Creek. The as-built plans and URS report were then supplemented by updated topographic information to reflect the recent widening improvements. All of this information was then verified at a recent site visit. The topographic information and plans in the URS report were confirmed with the as-built plans. Based on the as-built plans, updated topographic information, and the URS report, the County does not believe that the hydraulic models require revision.

For point of clarification, the bridge crossing is not skewed. The skewed cross-sections are the cross-sections located immediately upstream and downstream of the bridge. From the CalTrans plans and topographic information, it was determined that the bridge has a skew angle of 40 degrees. For the purposes of the hydraulic model cross-sections are compiled immediately upstream and downstream of a bridge. If these cross-sections were not skewed it would drastically overestimate the conveyance area. Additionally, we utilized an n-value to represent the dense vegetation within the vicinity of the bridge and modeled the ineffective flow areas that are caused by the expansion contraction effects at the bridge. This modeling approach combined with the research was utilized to determine the hydraulic characteristics of Horse Ranch Creek.

The skew factor does not significantly affect the frictional losses pertaining to the bridge length with respect to the flow direction.

substantially underestimated in Rick Engineering's study. This portion of the technical report must be corrected to reflect the accurate modeling information. N-49

Second, the drainage report states that Horse Ranch Creek does not have a FEMA defined floodplain. (Appendix M-2, p. 31; see also DEIR, pp. 4-15, 4-19, 2.1-10.) This is inaccurate. A portion of Horse Ranch Creek south of SR-76 is defined as a special flood hazard area (SFHA) per FIRM panel 06073C0484. For purposes of clarity, the technical report and related Draft EIR text must be revised to state that Horse Ranch Creek does not have a FEMA defined floodplain *within the project limits*. It is our understanding that a Conditional Letter of Map Revision (CLOMR) will be required to revise the FEMA floodplain south of SR-76. N-50

Third, the drainage report inaccurately states that the southern Pankey Road crossing was not analyzed because it is currently located in the San Luis Rey 100-year floodplain. (Appendix M-2, p. 31.) This statement is incorrect according to the modeling performed for the Campus Park West project; specifically, based on the HEC-RAS model for Campus Park West and the Landmark model for Campus Park. N-51

Finally, it is not clear whether Rick Engineering included a tailwater condition for the detention analysis for the proposed Detention Basin DB8a. The bottom of the basin appears to be below the Horse Ranch Creek floodplain elevation, which may indicate that the detention will not function properly due to a high tailwater condition on the outlet structure. This analysis must be clarified. N-52

The Draft EIR Identifies The Wrong Alignment For Pankey Road

As stated above, the Specific Plan claims that "coordination" took place with respect to the traffic circulation network shown for the proposed Meadowood project. (See, Specific Plan, p. 27, italics added; see also p. 21.) However, the Draft EIR, Specific Plan and other technical studies include an incorrect alignment of Pankey Road from SR-76 northerly to Pala Mesa Drive through the Campus Park West property. (See, DEIR, Figures 2.1-8, 2.3-1 through 2.3-13, Appendix E, at pp. 73, 77, 79.) As presently shown, the Draft EIR reflects the following alignment: N-53

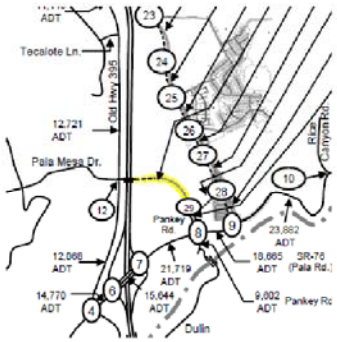
N-50 Based on the 1997 FEMA flood insurance rate map (FIRM Map Number 06073C0484 F), Horse Ranch Creek is not a FEMA mapped floodplain. There is a small area/finger, associated at the Horse Ranch Creek and San Luis Rey confluence that is shown within the floodplain, however the FIRM identifies it as the San Luis Rey Zone A 100-year floodplain.

As for the FEMA floodplain, south of SR-76, which is associated with the San Luis Rey River, it is understood that a Map Revision must be submitted upon Final Design to reflect the recent SR-76 improvements. It is anticipated that this Map Revision will be performed by Caltrans. However if at the time of the Proposed Project's final design, Caltrans has not submitted the Map Revision, it is understood that a Map Revisions will be required.

N-51 Based on the 1997 FEMA flood insurance rate map (Map Number 06073C0484 F) the portion of Pankey Road, south of SR-76 is inundated by the San Luis Rey River.

N-52 Rick Engineering Company has revised the grading associated with this detention facility. In addition, tentative map level volume calculations have been performed to account for the tailwater condition. Upon final design, detailed calculations will be submitted, in accordance with the County's drainage design manual, to include the tailwater condition.

N-53 The County acknowledges this comment. The proposed alignment of Pankey Road from SR-76 northerly to Pala Mesa Drive through the Campus Park West property is based on environmental and engineering studies which have been prepared and approved by the County and is consistent with the proposed Campus Park project. Any other alignment proposed as part of the Campus Park West project will require equivalent study. The applicant would have no objection, should another alignment be approved through the Campus Park West project. This would not affect the point of connection proposed on the Project Site as part of the Proposed Project.



(Traffic Study, Appendix E, at p. 73.)

The alignment shown in the Meadowood EIR and Appendix E does not conform to the alignment shown on the Campus Park West Tentative Map and Specific Plan submitted to the County on November 12, 2008:

N-53



(Campus Park West Tentative Map No. 5424.)

The Campus Park West digital files of the Pankey Road alignment were transmitted to the project applicant (Pardee) and its civil engineering consultant, Mike White of Rick Engineering, on December 17, 2008. (See enclosed email exchange from Russell Josue to Mike While and Curt Turner, dated December 17, 2008.) The County's Department of Planning and Land Use also was apprised of the proposed Pankey Road alignment shown on the Campus Park West project. To be consistent with the Campus Park West proposed alignment of Pankey Road, the Draft EIR and traffic study must be revised to reflect the alignment provided to the applicant in December 2008, well before the release of the Draft EIR for public review. N-54

In addition, please be advised that Pappas will not grant any access rights, permission, or rights of way for the alignment of Pankey Road as incorrectly depicted in the Draft EIR and traffic study for the Meadowood project. As a result, the proposed Pankey Road alignment reflected in the Draft EIR is infeasible under CEQA. N-55

The Draft EIR Also Identifies The Wrong Trail Alignment

Related to the incorrect alignment of Pankey Road through the Campus Park West property, the proposed trail shown on page 66 of the Specific Plan and Figure 1-3 of the Draft EIR also is incorrect. The trail traversing the Campus Park West site is intended to follow alongside Pankey Road. Therefore, the trail must be redesigned to run parallel to the corrected Pankey Road alignment. The Draft EIR also must be revised to show the correct trail alignment. N-56

We appreciate the opportunity to submit the above comments and look forward to detailed responses from the County, including separate and additional responses to the enclosed PBS&J memorandum, dated September 29, 2009. We also are willing to work with County staff to resolve the above issues, and look forward to hearing from the County. N-57

Very truly yours,

Mark J. Dillon
of
Gatzke Dillon & Ballance LLP

Enclosures: (1) Fax memorandum, dated September 15, 2008, from VCWD General Manager Gary Arant; (2) E-mail exchanges from and to Russell Josue, Mike While, and Curt Turner, dated December 17, 2008; and (3) PBS&J Draft comments on Meadowood EIR water and wastewater technical studies, dated September 29, 2009

cc: Thad Johnson, Pappas Investments

N-54 Please see response to comment N-53.

N-55 Comment noted.

N-56 Comment noted. Please see response to comment N-53 as related to the trail intended to follow alongside the alignment of Pankey Road.

N-57 Comment noted. Responses to the PBS&J memorandum are addressed in N-58 through N-70 below.

SEP. 12. 2008 10:06AM NO. 2217 P. 1

FAX Memo

To: Thad Johnson, Pappas Investments

From: Gary Arant, VCWD

Re: Formal Response to Request for Annexation

Thad;

Here is the memo which has gone to our Board about your annexation request. The meeting is Monday, 9/15/08 at 2:00 pm. Also, could I get your e-mail address?

Gary Arant
General Manager

DATE: **September 15, 2008**

TO: **Honorable President and Board of Directors**

FROM: **Gary Arant, General Manager**

SUBJECT: **REQUESTS FOR ANNEXATION FROM PARDEE HOMES AND PAPPAS INVESTMENTS**

PURPOSE:

To provide the Board information about the above referenced requests for annexation and a recommendation for initial response and how to proceed in processing the requests.

SUMMARY:

As reported at the regular meeting of September 2, 2008, staff is in receipt of two requests for annexation to the District.

Pardee – Meadowood Project - The first request, dated August 11, 2008, came from Jimmy Ayala of Pardee Homes, San Diego, Calif. Mr. Ayala is requesting the District annex the 390-acre Meadowood Project parcel slated for residential development. This parcel is principally located east of I-15 and north of Highway 76, and currently resides in the San Luis Rey MWD service area.

Over the last two years or so, the Board and staff have had numerous contacts with Pardee Homes concerning their proposed Meadowood Project. In fact, Pardee was one of the principal funding partners of the earlier effort to secure service either through the San Luis Rey MWD, or by annexation to VCWD; an effort which has been set aside at this time. Prior to this request, Pardee has developed a proposal entitled, ***"Meadowood - A Net Zero Water Community"*** identifying the net imported water demand for the project and how the level of net demand will be achieved through the use of state of the art inside and outside water conservation methods, as well as the use of local non-potable ground water and reclaimed wastewater to meet the outside landscape irrigation demands.

Pappas - Campus Park West - The second request is from Thad Johnson of Pappas Investment, Sacramento, Ca. for annexation of the 107-acre 'residential, mixed-use, general commercial and limited impact industrial land uses' Campus Park West Project, also principally situated east of I-15 and north of Highway 76. While most of the property is in the San Luis Rey MWD service area, a small portion of the property south of Highway 76 is located in the Rainbow MWD.

Staff has more recent and more limited contact with Pappas investments and has less knowledge about what is being proposed for this development and its associated net water demand.

In reviewing the letters as submitted, several very basic issues are apparent:

1. Both requests will involve detachment from existing water agencies, Pardee from San Luis Rey MWD and Pappas from both San Luis Rey and Rainbow MWD. It has been our policy to seek concurrence for the proposed detachment or re-organization from the water agency currently hosting the subject property. Staff assumes that the Board would adopt the same position in these two instances and require concurrence from both SLRMWD and RMWD.

2. Both requests involve concurrent annexations into both MWD and the SDCWA, and, as such, are subject directly and indirectly through VCWD to the annexation policies of both agencies. One of the annexation policy requirements of the SDCWA is that the annexation not create service area islands. If annexed as proposed, neither the Pardee or the Pappas Properties would be contiguous to VCWD without including other properties in the annexation proposals.

3. Besides requiring water service, both developments will require wastewater treatment and water reclamation services. It would not be prudent to accept ownership and operational responsibility for two separate systems from developments in such close proximity and, as such, Pardee and Pappas would have to coordinate a joint treatment and disposal system.

4. The over-riding issue is the availability of imported water to serve the needs of both new developments, after the District has considered the needs of the lands currently in the District. Serving land and development outside the District's current boundaries should in no way impair the ability to meet the water needs of development on lands currently inside our boundaries. While our region is not in mandatory water usage reduction for residential and commercial uses at this time, our IAWP customers are under a 30% mandatory reduction. Further, there is great concern and speculation about the adequacy of water supplies for 2009, 2010 and another 5 to 10 years beyond until physical solutions are completed to secure the reliability of our Sate Water Project supply and develop additional local supplies.

Given these circumstances, it is not too difficult to determine that over the period of time that these two annexation requests would be processed (18 to 24 months) our region will likely experience mandatory water usage reductions of some level. If this does occur, the Water Supply Shortage Response Program Level 2, 3, or 4 provisions concerning annexations would apply.

Level 2 - Under Level 2, *"Water Alert"* conditions, net water demand associated with annexations would need to be offset, as well as provide additional water supply (.5 af per edu) through development of their own supplies or participation in local or regional offset programs.

Level 3 - In a Level 3, *"Water Critical"* condition, annexation proposals would have to provide the same offsets, but such offsets could only come through providing their own supply, or participation in a local supply development project and not through a local

or regional supply offset program. Further, participation in a local supply project would only be allowed after it was determined that the demand offset requirements of developments on lands currently within the District service area could be met first.

Level 4 – In a Level 4, *"Water Emergency,"* condition, all annexation processing is terminated.

Even though we are currently in Level 1, a voluntary conservation mode, there is a great likelihood that we will be in at least Level 2 sometime during 2009 and certainly within the time frame covering the processing of these two annexation proposals. If it is assumed that this will be the case, these two proposals could only move forward under the auspices of local and regional demand offset programs, which are not yet in place.

RECOMMENDATION:

Given the circumstances discussed above, staff recommends that the Board:

I. Receive and file the Pardee and Pappas annexation requests; and

II. Defer action on the requests until such time that both local and regional offset programs are established; and

III. Direct staff to facilitate the development of a regional offset program and further define and quantify local resource development and offset opportunities within the District's service area; and

IV. Advise Pardee and Pappas to consider the following actions:

1. Pardee should further document, refine and finalize their report, "Meadowood – A Net Zero Water Community."

2. Pappas should begin the process of developing a similar analysis determining the net imported water demand for their proposed development.

3. Pardee and Pappas should seek counsel with both MWD and SDCWA on those agencies' respective positions on issuing Water Supply Assessments and general attitude toward processing large annexations under the current and pending water supply conditions.

4. Pardee and Pappas should initiate discussions with San Luis Rey MWD and Rainbow MWD, as appropriate, to seek concurrence for detachment from those agencies.

5. Pardee and Pappas should initiate discussions with properties lying between their properties and the existing District boundaries as to interest of those properties joining in the annexation process so as to achieve the service area contiguity as directed in the SDCWA Annexation Policy.

6. Pardee and Pappas should, as appropriate, initiate discussions and planning on how to coordinate wastewater treatment and disposal facilities to jointly meet their respective needs, maximize the joint use of reclaimed water and other local non-potable sources, and construct facilities amenable to expansion to meet possible future needs in that area.

SUBMITTED BY:

Gary Arant
General Manager

Attachments

Rachel Cook

From: Russell Josue [Russell@projectdesign.com]
Sent: Wednesday, December 17, 2008 1:49 PM
To: Mike While; Curt Turner
Cc: Karen Van Ert; Karen Kosup (E-mail); Greg Shields; Karen Beighley
Subject: RE: Street R

Attachments: 3631PRMA_2008-12-17.zip



3631PRMA_2008-12-17.zip (790 K...

Mike,

Attached please find the latest CL alignment information for Pankey Road (3631PRMA_2008-12-17.zip).

Feel free to let me know if you have any questions.

Thank you,
Russell Josue
Senior Civil Designer
Project Design Consultants
619.235.6471 Tel
619.234.0349 Fax
619.881.2572 Direct
russell@projectdesign.com
www.projectdesign.com
This communication may contain privileged or other confidential information. If you are not the intended recipient, or believe that you may have received this communication in error, please reply to the sender indicating that fact and delete the copy you received. This communication is for use by the recipient only.

-----Original Message-----
From: Mike While [mailto:mwhile@rickengineering.com]
Sent: Wednesday, December 17, 2008 1:18 PM
To: Curt Turner
Cc: Karen Van Ert; Karen Kosup (E-mail); Greg Shields; Karen Beighley; Russ Josue
Subject: RE: Street R

Thanks Curt,

We look forward to receiving the file.

-----Original Message-----
From: Curt Turner [mailto:Curt@Projectdesign.com]
Sent: Wednesday, December 17, 2008 11:26 AM
To: Mike While
Cc: Karen Van Ert; Karen Kosup (E-mail); Greg Shields; Karen Beighley; Russ Josue
Subject: RE: Street R

Mike,

We just received the ok from our client to provide you with alignment of the street you requested. We should be able to get this file to you by the end of the day today.

Curtis J. Turner, PE/PLS
Vice President
Project Design Consultants
(619) 881-2594 Direct
(619) 234-0349 Fax
curt@projectdesign.com
www.projectdesign.com

This communication may contain privileged or otherwise confidential information. If you are not the intended recipient, or believe that you may have received this communication in error, please reply to the sender indicating that fact and delete the copy you received. This communication is for use by the recipient only.

-----Original Message-----
From: Mike While [mailto:mwhile@rickengineering.com]
Sent: Tuesday, December 09, 2008 1:06 PM
To: Curt Turner (E-mail)
Cc: Karen Van Ert; Karen Kosup (E-mail)
Subject: FW: Street R

Hello Curt,

Hope all is well with you. As per Karen's direction, can you send me your latest design file for Pala Mesa Rd? Have you looked at how street R would connect to your new alignment? Let me know when I can expect the file. Thanks for your help.

Mike

-----Original Message-----
From: Kosup, Karen [mailto:karen.kosup@pardeehomes.com]
Sent: Monday, December 08, 2008 8:35 AM
To: Mike While
Subject: Fw: Street R

Mike, see Jimmys reply below. Please coordinate with Curt Turner at PDC for alignment details.
Fyi, This will change our impact analysis

Sent from my BlackBerry Wireless Handheld

----- Original Message -----
From: Ayala, Jimmy
To: Kosup, Karen
Sent: Mon Dec 08 08:32:33 2008
Subject: Re: Street R

We should yes.

----- Original Message -----
From: Kosup, Karen
To: Ayala, Jimmy
Sent: Mon Dec 08 08:22:59 2008
Subject: Street R

Are we showing Pappas alignment?

Sent from my BlackBerry Wireless Handheld

10/12/09
COMMENTS ON MEADOWOOD EIR
– WATER AND WASTEWATER TECHNICAL STUDIES

Comment 1: Sizing of Water System Facilities

Issue: **The water system facilities for the Meadowood project need to be planned in a manner that accommodates the area development anticipated in the County's draft General Plan update.**

The Meadowood Water Study (Dexter Wilson Engineering, May 2009) presents a water supply system sized and otherwise planned to serve only the Meadowood project (see Table ES-1, Executive Summary). The system as presented does not accommodate any of the neighboring development anticipated in the County's draft General Plan update. It is reasonable to assume that whichever retail water agency ends up serving the area will require the backbone water transmission facilities be sized to accommodate planned growth, and that the treated water storage facilities be master planned to allow for phased expansion as needed to accommodate planned growth. N-58

Implication:

The aqueduct connections, transmission pipelines, and treated water storage facilities identified in the Meadowood report are undersized in comparison to the facilities required to serve the anticipated water demands of the area. N-59

Requested Action:

The Meadowood Water Study and EIR should be revised to identify the major backbone water facilities required for service to the whole of the area planned for development in the County's draft General Plan update. Specifically: N-60

- *Aqueduct Connections and Transmission Pipelines:* The aqueduct connections and pipelines should be upsized. Pipeline diameters will increase from the 12-inch diameter identified in the Meadowood report, to perhaps 18-inches to 24-inches, with the actual size to be determined based on appropriate area planning analysis.
- *Treated Water Storage:* Treated water storage needs will increase commensurate with increased demands. As the Meadowood site is the only planned development parcel with adequate elevation for treated water storage, the Meadowood Water Study and EIR should identify master-planned opportunities to expand significantly the 5 MG of storage identified in the document. N-61

N-58 Comment noted. The EIR has identified and analyzed the water facilities necessary to accommodate the Proposed Project. The sizing of facilities to serve any future development in the project vicinity can only be made after LAFCO determines the MWD to provide service to the area. The MWD thereafter, can determine the appropriate sizing of water facilities for its service area.

N-59 Please see response to comment N-58.

N-60 Please see response to Comment N-58.

N-61 Please see response to Comment N-58.

Comment 2: Location of Water Transmission Mains

Issue: **The alignment of the Pala Mesa Drive water transmission pipeline needs to be adjusted to be within the planned road network of the Campus Park West development.**

Implication:

The Meadowood report shows water transmission pipeline alternatives originating in Pala Mesa Drive that are not within the planned road network of the Campus Park West project, and are therefore not compatible with the planned development of the site.

Requested Action:

The Meadowood Water Study and EIR should be revised to modify the alignments of water Pala Mesa Drive transmission pipelines, for consistency with the planned road network of the Campus Park West project.

N-62

Comment 3: Recycled Water System Facilities

Issue: **The recycled water system facilities for the Meadowood project need to be planned in a manner that accommodates the development of neighboring parcels as anticipated in the County's draft General Plan update.**

The Meadowood Water Study (Dexter Wilson Engineering, May 2009) presents a recycled water supply system sized and otherwise planned to serve only the Meadowood project (see Table ES-2, Executive Summary). The system as presented does not accommodate any of the neighboring development anticipated in the County's draft General Plan update. It is reasonable to assume that whichever retail water agency ends up serving the area will require the backbone recycled water facilities be sized to accommodate the planned growth of the area.

N-63

Implication:

The recycled water backbone transmission and storage facilities identified in the Meadowood report are undersized in comparison to the facilities required to serve the anticipated development of the area.

Requested Action:

The Meadowood Water Study and EIR should be revised to identify the major recycled water facilities required for service to the whole of the area planned for development in the County's draft General Plan update. Specifically:

- *Recycled Water Transmission Pipelines:* The recycled water transmission pipelines should be sized sufficient to serve the needs of the area. Pipeline diameters will increase

N-64

N-62 The County acknowledges this comment. The proposed alignment of the Pala Mesa Drive water transmission pipeline is consistent with environmental and engineering studies that have been prepared and approved by the County and the alignment is consistent with that on the proposed Campus Park project. Any other alignment proposed as part of the Campus Park West project will require equivalent study. The Proposed Project would have no objection to an alternative alignment, should another street alignment be approved by the County through the Campus Park West project.

N-63 Comment noted. The EIR has identified and analyzed the recycled water facilities necessary to accommodate the Proposed Project. The sizing of facilities to serve any future development in the project vicinity can only be made after LAFCO determines the municipal water district to provide service to the area. The district thereafter, can determine the appropriate sizing of water facilities for its service area. Please also see response to comment N-9.

N-64 Please see response to comment N-9 and N-63.

from the 6-inch diameter identified in the Meadowood report to perhaps 8-inches to 12-inches, with the actual size to be determined based on appropriate area planning analysis. N-64

- *Recycled Water Storage:* The recycled water storage facility should be sized to accommodate the planned development of the area. Storage capacity may increase from the 0.65 MG identified in the Meadowood reports, to approximately 1 to 1.5 MG, with the actual size to be determined based on appropriate area planning analysis. N-65

Comment 4: Sizing of Wastewater System Facilities

Issue: **The wastewater system facilities for the Meadowood project need to be planned in a manner that accommodates the area development anticipated in the County's draft General Plan update.**

The Meadowood Wastewater Study ("Wastewater Service Alternatives Analysis for Meadowood", RW Beck , June 2009) presents a wastewater supply system sized and otherwise planned to serve only the Meadowood project. The system as presented does not accommodate any of the neighboring development anticipated in the County's draft General Plan update. It is reasonable to assume that whichever retail wastewater agency serves the area will require the backbone wastewater facilities be sized or otherwise master-planned to accommodate the planned growth of the area. N-66

Implication:

The wastewater treatment plant and percolation ponds identified in the Meadowood report are undersized in comparison to the facilities required to serve the anticipated development of the area.

Requested Action:

The Meadowood Wastewater Study and EIR should be revised to identify the major wastewater facilities required for service to the whole of the area planned for development in the County's draft General Plan update. Specifically:

- *Wastewater Treatment Plant:* The wastewater treatment plant should be master-planned to allow for phased expansion, and with ultimate capacity sufficient to serve the needs of the area. Plant capacity may increase from 0.225 mgd as shown in the Meadowood report, to approximately 0.5 to 1 mgd, with the actual size to be determined based on appropriate area planning analysis. N-67

- *Percolation Ponds:* The percolation ponds (the Meadowood report calls these Wet Weather Ponds) should be master-planned to allow for phased expansion, and with ultimate capacity sufficient to serve the needs of the area. N-68

N-65 Please see response to comment N-63.

N-66 Comment noted. The EIR has identified and analyzed the wastewater facilities necessary to accommodate the Proposed Project. The sizing of facilities to serve any future development in the project vicinity can only be made after LAFCO determines the municipal water district to provide service to the area. The district thereafter, can determine the appropriate sizing of water facilities for its service area.

Please see response to comment N-9.

N-67 Please see response to comment N-66.

N-68 Please see response to comment N-66.

Comment 5: Percolation Pond Permitting

Issue: **There is uncertainty as to Meadowood's ability to obtain necessary permits from the San Diego Regional Water Quality Control Board for operation of the proposed percolation ponds.**

The Meadowood Wastewater Study ("Wastewater Service Alternatives Analysis for Meadowood", RW Beck , June 2009) indicates the project's proposed percolation ponds will require a Waste Discharge Permit, but not an NPDES permit. There appears to be uncertainty as to the possible need for an NPDES permit, and as to ability of the Regional Water Quality Control Board to permit the project as proposed. N-69

Implication:

If the wastewater disposal approach outlined in the Meadowood reports is not acceptable to the Regional Water Quality Control Board, then the approach will need to be revised.

Requested Action:

The Meadowood Wastewater Study and EIR should be revised to include confirmation from the Regional Water Quality Control Board of the acceptability of operating percolation ponds in the Bonsall Basin as proposed in the Meadowood reports. N-70

SUMMARY

In order to provide adequate support and documentation, the Meadowood water and sewer studies should be revised as outlined in the above comments. N-71

N-69 The specific approach for design and permitting of the treatment facilities, recycled water system, and wet weather ponds has been discussed with the San Diego Regional Water Quality Control Board which has agreed that the method and location of wet weather pond for disposal is generally acceptable, subject to additional comment during permit application and final design. The wet weather ponds will be located such that there will be no connection to surface waters of the US and therefore an NPDES permit and corresponding treatment to surface water standards is not required per San Diego Regional Water Control Board representatives. Proposed treatment will meet Basin Plan groundwater objectives and Title 22 criteria for reuse.

N-70 Please see response to comment N-69. The Report of Waste Discharge permit will be applied for as part of the final design of the wastewater treatment plant upon final approval of the Proposed Project by the County.

N-71 Please see response to comment N-9 and 11. Based on reasons described in responses to comments N-58 through N-70, these studies adequately address water, recycled water and wastewater impacts associated with the Proposed Project.

Letter O

Bobbi Herdes

From: Campbell, Dennis [Dennis.Campbell@sdcounty.ca.gov]
Sent: Monday, October 12, 2009 4:17 PM
To: Ayala, Jimmy; Bobbi Herdes
Cc: Blackson, Kristin; Real, Sami; Salazar, Salvador
Subject: FW: Meadowood DEIR Public Comments

Here are comments from a consultant hired by SmithTrager.

Dennis Campbell
Land Use and Environmental Planner
Department of Planning and Land Use
County of San Diego
5201 Ruffin Road, Suite B
San Diego, CA 92123
Ph.: 858.505.6380
Fax: 858.694.3373

-----Original Message-----
From: Sandy_Smith@casb.uscourts.gov [mailto:Sandy_Smith@casb.uscourts.gov]
Sent: Monday, October 12, 2009 4:13 PM
To: Campbell, Dennis
Subject: RE: Meadowood DEIR Public Comments

Dennis
Please except this email as comments on the DEIR for the THE MEADOWOOD PROJECT; GPA 04-002; SP 04-001; REZ 04-004; TM 5354; S 04-005; S 04-006, S04-007; MUP 08-023; LOG NO. 04-02-004; SCH NO. 2004051028. O-1

This project should be included in the I-15/SR-76 Master Specific Plan (MSP). Only the western 92 acres are in the MSP, yet the intent of the BOS was to use the MSP for the four quadrants of the interchange as the 'vehicle for an integrated planning approach where all necessary facilities and services are not available.' This project fits that description and is located contiguously to other projects in the MSP. The MSP is the vehicle for planning the development of the I-15/SR-76 interchange. Three projects in the northeast quadrant of I-15/76 are active - Campus Park, Campus Park West and Palomar Campus. Other projects in the Pala Mesa area in the northwest quadrant are also active. Planned separately, the impacts caused by each project are not analyzed in a fair, comprehensive manner. The first project through the process will use more of the underutilized infrastructure causing later projects to have more conditions. The BOS intended for this area to be planned in a comprehensive manner as the MSP outlines.
If the MSP is going to be amended, where is it? The MSP in the updated draft Fallbrook plan is the same as the original.
The unit counts for this project are too high. The existing General Plan allows for 288 dwelling units, while this project is asking for 844-886. Add in the 3 other residential projects and over 2315 units are in the northeast quadrant of MSP. The original MSP limited housing to 956 units. Why is this not be adhered to? Even the most intense GPU map- the Draft Land Use map allows 1892 units.
Urban densities are not justified for this project. The MSP limited parcel sizes to 15000 square feet, on land with slope with than 15%, no clustering.
There is no commercial planned for this project, so it is a pure bedroom community. All residents would be working somewhere outside of the project. This does not meet the definition of a rural village. In fact, the Smart Growth designation is Special Use, intended for the Palomar Campus, where by definition 'non-residential land uses dominate'.
Off-site road improvements are not identified. The impacts to the I-15 corridor and interchanges from all of these projects should be studied O-2

1

O-1 Introductory comment noted. No response is necessary.

O-2 The County concurs with this comment, in as much as a portion of the Proposed Project (western 92 acres) is included in the MSP Area (MSPA), identified in Appendix B of the I-15 Corridor Subregional Plan; therefore, the EIR includes a consistency analysis of the Proposed Project to the proposed studies identified for the I-15/SR-76 Interchange MSPA. Please note that this cited 92 acres is part of the original Campus Park Specific Plan Area, which was adopted in the early 1980s. The remainder of the Project Site is not included in that Campus Park Specific Plan Area or the MSPA.

Further, the I-15 Corridor Subregional Plan covers the approximately one-half acre to two-mile "viewshed" area on each side of I-15 (page14). In other words, it extends over the area of I-15 that can be seen by vehicular drivers and passengers moving on I-15. Only the western-most portion of the Project Site falls within this "viewshed." The entire Project Site should not necessarily be included within the MSPA, as the remainder of the Project Site is not located within the boundaries of the I-15 Corridor Subregional Plan, nor in the adopted Campus Park Specific Plan.

The analysis of the required studies found within Appendix B to the I-15 Corridor Subregional Plan (which provides guidelines for the preparation of the MSP) is located within Subchapter 4.1 of the Final EIR, at Appendix K (starting at page 18-23) to the Final EIR, as well as at Appendix 1 to the Meadowood Specific Plan Amendment/GPAR. As discussed in both Appendix 1 and Subchapter 4.1 of the Final EIR, the Proposed Project is consistent with Appendix B, given the fact that for the Proposed Project and Project Site, the necessary supporting MSPA studies are substantially complete. This conforms to the I-15 Corridor Subregional Plan Land Use Policy Number Five that requires the preparation of ". . . an overall Master Specific Plan for the Highway 76 – I-15 Interchange area in accordance with the conditions contained in Appendix B." Appendix B states that this overall or final MSP can be prepared by the County or the

Bobbi Herdes

From: Campbell, Dennis [Dennis.Campbell@sdcounty.ca.gov]
Sent: Monday, October 12, 2009 4:17 PM
To: Ayala, Jimmy; Bobbi Herdes
Cc: Blackson, Kristin; Real, Sami; Salazar, Salvador
Subject: FW: Meadowood DEIR Public Comments

Here are comments from a consultant hired by SmithTrager.

Dennis Campbell
Land Use and Environmental Planner
Department of Planning and Land Use
County of San Diego
5201 Ruffin Road, Suite B
San Diego, CA 92123
Ph.: 858.505.6380
Fax: 858.694.3373

-----Original Message-----
From: Sandy_Smith@casb.uscourts.gov [mailto:Sandy_Smith@casb.uscourts.gov]
Sent: Monday, October 12, 2009 4:13 PM
To: Campbell, Dennis
Subject: RE: Meadowood DEIR Public Comments

Dennis
Please except this email as comments on the DEIR for the THE MEADOWOOD PROJECT; GPA 04-002; SP 04-001; REZ 04-004; TM 5354; S 04-005; S 04-006, S04-007; MUP 08-023; LOG NO. 04-02-004; SCH NO. 2004051028.

This project should be included in the I-15/SR-76 Master Specific Plan (MSP). Only the western 92 acres are in the MSP, yet the intent of the BOS was to use the MSP for the four quadrants of the interchange as the 'vehicle for an integrated planning approach where all necessary facilities and services are not available.' This project fits that description and is located contiguously to other projects in the MSP. O-2

The MSP is the vehicle for planning the development of the I-15/SR-76 interchange. Three projects in the northeast quadrant of I-15/76 are active - Campus Park, Campus Park West and Palomar Campus. Other projects in the Pala Mesa area in the northwest quadrant are also active. Planned separately, the impacts caused by each project are not analyzed in a fair, comprehensive manner. The first project through the process will use more of the underutilized infrastructure causing later projects to have more conditions. The BOS intended for this area to be planned in a comprehensive manner as the MSP outlines. O-3

If the MSP is going to be amended, where is it? The MSP in the updated draft Fallbrook plan is the same as the original.
The unit counts for this project are too high. The existing General Plan allows for 288 dwelling units, while this project is asking for 844-886. Add in the 3 other residential projects and over 2315 units are in the northeast quadrant of MSP. The original MSP limited housing to 956 units. Why is this not be adhered to? Even the most intense GPU map- the Draft Land Use map allows 1892 units.
Urban densities are not justified for this project. The MSP limited parcel sizes to 15000 square feet, on land with slope with than 15%, no clustering.
There is no commercial planned for this project, so it is a pure bedroom community. All residents would be working somewhere outside of the project. This does not meet the definition of a rural village. In fact, the Smart Growth designation is Special Use, intended for the Palomar Campus, where by definition 'non-residential land uses dominate'.
Off-site road improvements are not identified. The impacts to the I-15 corridor and interchanges from all of these projects should be studied

1

O-2 (cont.)

property owners within the MSPA (page 31 of Appendix B). Via the EIR, Specific Plan and GPA Report, this requirement of Appendix B has been satisfied and therefore, the I-15 Corridor Subregional Plan's Land Use Policy Five.

O-3 The County concurs that all projects proposed within the area identified within Appendix B should be planned comprehensively. In order to meet this goal, the County has worked with the applicants and property owners within the northeast quadrant of the MSPA to ensure that consistent thresholds have been applied to the environmental analyses and that the projects have coordinated directly regarding their respective project elements. In addition, since the MSP identifies regional infrastructure concerns, such as roadways, water, wastewater, trails, and drainage, the EIR and corresponding appendices document the infrastructure improvements throughout the northeast quadrant of the Interchange and interrelate in terms of trail and road connections, identification of public transit stops, timing of internal roadway improvements, etc.

The provisions of the MSP allow for individual property owners to prepare the studies required by Appendix B of the I-15 Corridor Subregional Plan and for individual property owners to propose development, which is based on the studies, to be processed and implemented via subsequent individual Specific Plans (e.g., Meadowood, Campus Park, and Campus Park West). The EIRs associated with each project include both project direct and cumulative environmental analysis. The cumulative impacts addressed in the EIR are associated with projects in the northeast quadrant of I-15/SR-76, as well as other projects within the cumulative analysis impact area (Table 1-7, as well as Figure 1-19 of the Final EIR).

Bobbi Herdes

From: Campbell, Dennis [Dennis.Campbell@sdcounty.ca.gov]
Sent: Monday, October 12, 2009 4:17 PM
To: Ayala, Jimmy; Bobbi Herdes
Cc: Blackson, Kristin; Real, Sami; Salazar, Salvador
Subject: FW: Meadowood DEIR Public Comments

Here are comments from a consultant hired by SmithTrager.

Dennis Campbell
Land Use and Environmental Planner
Department of Planning and Land Use
County of San Diego
5201 Ruffin Road, Suite B
San Diego, CA 92123
Ph.: 858.505.6380
Fax: 858.694.3373

-----Original Message-----
From: Sandy_Smith@casb.uscourts.gov [mailto:Sandy_Smith@casb.uscourts.gov]
Sent: Monday, October 12, 2009 4:13 PM
To: Campbell, Dennis
Subject: RE: Meadowood DEIR Public Comments

Dennis
Please except this email as comments on the DEIR for the THE MEADOWOOD PROJECT; GPA 04-002; SP 04-001; REZ 04-004; TM 5354; S 04-005; S 04-006, S04-007; MUP 08-023; LOG NO. 04-02-004; SCH NO. 2004051028.

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If the MSP is going to be amended, where is it? The MSP in the updated draft Fallbrook plan is the same as the original. O-4

The unit counts for this project are too high. The existing General Plan allows for 288 dwelling units, while this project is asking for 844-886. Add in the 3 other residential projects and over 2315 units are in the northeast quadrant of MSP. The original MSP limited housing to 956 units. Why is this not be adhered to? Even the most intense GPU map- the Draft Land Use map allows 1892 units. O-5

Urban densities are not justified for this project. The MSP limited parcel sizes to 15000 square feet, on land with slope with than 15%, no clustering.
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Off-site road improvements are not identified. The impacts to the I-15 corridor and interchanges from all of these projects should be studied

1

O-3 (cont.)

The County does not agree that the "first project through the process will use more of the underutilized infrastructure causing later projects to have more conditions." Every project at this Interchange quadrant has different objectives and each would affect resources/require infrastructure in different ways. Nonetheless, the projects are all being processed within the same general timeframe and County staff monitors each project relative to the others. Each project will be individually required to mitigate for each project's own direct impacts and/or pay its fair share of regional infrastructure improvements. Staff believes this process is meeting the comprehensive planning intended in the MSP.

O-4 The 1988 Appendix B recommended that the area covered by the proposed MSP would be designated as an interim S90 Holding Area until supporting studies were completed and alternative zoning would be implemented. These studies have now been completed (or are in the process of being completed) by the individual property owners and the zoning reclassification will occur, as part of the Proposed Project, should the decision makers approve it. This is consistent with the intent of Appendix B. The Final EIR contains a complete analysis of the required studies cited on pages 33-34 of Appendix B, of the I-15 Corridor Subregional Plan, at Appendix K starting at page 18 of 23. This fulfills the requirement of Land Use Policy Five within the I-15 Corridor Subregional Plan, which is the responsibility of the property owners of land located at the four quadrants of the I-15 and SR-76 Interchange. Please see the parenthetical note after Land Use Policy Five, which identifies the responsible party to fulfill each Land Use Policy.

O-5 It is agreed that Appendix B to the I-15 Corridor Subregional Plan recommended a maximum of 956 residential dwelling units within the I-15/SR-76 Interchange quadrants. However, this provision was written in 1988 and the County's land use conditions have changed since that time to the present. At this time, SANDAG has identified a housing shortage in San Diego County, which indicates that vacant land should be considered for higher densities to increase the housing supply.

Bobbi Herdes

From: Campbell, Dennis [Dennis.Campbell@sdcounty.ca.gov]
Sent: Monday, October 12, 2009 4:17 PM
To: Ayala, Jimmy; Bobbi Herdes
Cc: Blackson, Kristin; Real, Sami; Salazar, Salvador
Subject: FW: Meadowood DEIR Public Comments

Here are comments from a consultant hired by SmithTrager.

Dennis Campbell
Land Use and Environmental Planner
Department of Planning and Land Use
County of San Diego
5201 Ruffin Road, Suite B
San Diego, CA 92123
Ph.: 858.505.6380
Fax: 858.694.3373

-----Original Message-----
From: Sandy_Smith@casb.uscourts.gov [mailto:Sandy_Smith@casb.uscourts.gov]
Sent: Monday, October 12, 2009 4:13 PM
To: Campbell, Dennis
Subject: RE: Meadowood DEIR Public Comments

Dennis
Please except this email as comments on the DEIR for the THE MEADOWOOD PROJECT; GPA 04-002; SP 04-001; REZ 04-004; TM 5354; S 04-005; S 04-006, S04-007; MUP 08-023; LOG NO. 04-02-004; SCH NO. 2004051028.

This project should be included in the I-15/SR-76 Master Specific Plan (MSP). Only the western 92 acres are in the MSP, yet the intent of the BOS was to use the MSP for the four quadrants of the interchange as the 'vehicle for an integrated planning approach where all necessary facilities and services are not available.' This project fits that description and is located contiguously to other projects in the MSP. The MSP is the vehicle for planning the development of the I-15/SR-76 interchange. Three projects in the northeast quadrant of I-15/76 are active - Campus Park, Campus Park West and Palomar Campus. Other projects in the Pala Mesa area in the northwest quadrant are also active. Planned separately, the impacts caused by each project are not analyzed in a fair, comprehensive manner. The first project through the process will use more of the underutilized infrastructure causing later projects to have more conditions. The BOS intended for this area to be planned in a comprehensive manner as the MSP outlines.
If the MSP is going to be amended, where is it? The MSP in the updated draft Fallbrook plan is the same as the original.
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Off-site road improvements are not identified. The impacts to the I-15 corridor and interchanges from all of these projects should be studied

1

O-5 (cont.)

Further, under the Implementation Section of Appendix B, the property owners would need to prepare certain studies to determine the appropriate land use designations, as well as the infrastructure needs, timing and financing. These studies are found in the EIR and appendices for the Proposed Project. The Planning Commission and Board of Supervisors may now use this information to make a decision regarding the appropriate number of dwelling units at the subject property. It should be noted that Appendix B anticipated a host of potential uses (including an industrial park on the Campus Park site, Campus Park West and the western portion of the Project Site) that could occur within the Plan Area. However, Appendix B was not a specific plan developed to guide specific development. The function of Appendix B was to identify properties within the I-15/SR-76 quadrant that should not be developed until comprehensive planning was undertaken.

The EIR addresses impacts associated with the Proposed Project at 844-886 units. Alternative 2 addresses impacts associated with potential development consistent with the General Plan designation (262 units), within Subchapter 5.3 of the Final EIR.

Bobbi Herdes

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Cc: Blackson, Kristin; Real, Sami; Salazar, Salvador
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If the MSP is going to be amended, where is it? The MSP in the updated draft Fallbrook plan is the same as the original.
The unit counts for this project are too high. The existing General Plan allows for 288 dwelling units, while this project is asking for 844-886. Add in the 3 other residential projects and over 2315 units are in the northeast quadrant of MSP. The original MSP limited housing to 956 units. Why is this not be adhered to? Even the most intense GPU map- the Draft Land Use map allows 1892 units. O-6
Urban densities are not justified for this project. The MSP limited parcel sizes to 15000 square feet, on land with slope with than 15%, no clustering. O-7
There is no commercial planned for this project, so it is a pure bedroom community. All residents would be working somewhere outside of the project. This does not meet the definition of a rural village. In fact, the Smart Growth designation is Special Use, intended for the Palomar Campus, where by definition 'non-residential land uses dominate'.
Off-site road improvements are not identified. The impacts to the I-15 corridor and interchanges from all of these projects should be studied

1

O-6 The EIR addresses impacts of development consistent with the General Plan Update Draft Land Use Map (848 units on the Project Site) in comparison to the Proposed Project. Based on the information in the EIR, the Board of Supervisors will make a decision whether to approve the Proposed Project or one of the Proposed Project Alternatives.

O-7 Please see responses to comments O-4 and O-5. Increased density for this area is anticipated by SANDAG, Caltrans, and in the County General Plan Update. Regardless, the Proposed Project is requesting a General Plan Amendment (GPA) in order to address features of the Proposed Project that would meet these more recent goals. Additionally, under the Implementation Section of Appendix B, the property owners need to prepare certain studies to determine the appropriate land use designations, as well as the infrastructure needs, timing, and financing. These studies are found in the EIR and Appendices for the Proposed Project. The studies assist in determining the appropriate lot sizes and densities. The Planning Commission and Board of Supervisors may now use this information to make a decision regarding the appropriate number of dwelling units at the subject property.

Bobbi Herdes

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Off-site road improvements are not identified. The impacts to the I-15 corridor and interchanges from all of these projects should be studied

1

O-8 The comment is correct in stating "there is no commercial planned" for the Proposed Project. However, in a broader context, the Proposed Project is part of mixed-use center consisting of several projects in the northeast quadrant of I-15/SR-76 (i.e., Campus Park, Campus Park West and Palomar College). This area is designated as a Special Use Center, as described in SANDAG's Regional Comprehensive Plan (RCP). The characteristics of a Special Use Center in the RCP include:

- Employment draws from throughout region, with other uses being community serving
- Special use centers may be located within larger area that has several designations
- Dominated by one non-residential land use (Palomar College)
- Retail support services
- Potential residential component.

As further described in the RCP, land use intensity targets of the Special Use Center are:

- Variety of low-mid-and high-rise building types
- 45+ employees/average net acre within ¼ mile of transit station
- Optional residential: 50+ dwelling units/average net residential acre.

This comment refers to the Rural Village definition. As described in the RCP, characteristics of a Rural Community include:

- Distinct communities that include Rural Villages defined by a village limit line with concentrated areas of residential and commercial development
- Draws from nearby rural areas
- Includes semi-rural and rural areas outside the village limit line.

Bobbi Herdes

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To: Ayala, Jimmy; Bobbi Herdes
Cc: Blackson, Kristin; Real, Sami; Salazar, Salvador
Subject: FW: Meadowood DEIR Public Comments

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Land Use and Environmental Planner
Department of Planning and Land Use
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Fax: 858.694.3373

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Off-site road improvements are not identified. The impacts to the I-15 corridor and interchanges from all of these projects should be studied O-9

1

O-8 (cont.)

Land use intensity targets for the Rural Community

- Within Village Cores, 10.9–24+ dwelling units/acre(higher densities permitted for senior housing)
- Desired building types: low-rise employment and residential.

Fallbrook is listed as an example of an existing, planned and potential Rural Community.

The Proposed Project will provide a variety of housing opportunities within the broader mixed-use center. Residences will be connected (via roadways and multi-use trails) to planned adjacent retail, office, civic and industrial uses, as part of the proposed Campus Park and Campus Park West projects. In addition, the Proposed Project would be connected to educational opportunities at the Palomar College Campus (adjacent to the Campus Park project). The Proposed Project has planned a street network, as well as bus turnout and pedestrian and bicycle paths, for residents to access these off-site areas. Taking into consideration adjacent existing and proposed uses, the Proposed Project has been designed to provide a mix of uses for both new residents of the Proposed Project and area residents. Some residents would work within the off-site areas. In fact, it is expected that up to 30 percent of the daily trips usually made by the residents would be captured within the immediate area due to employment or shopping opportunities provided. Therefore, there will be employment opportunities in proximity to Proposed Project residents.

O-9 Figure 1-4 in the Final EIR shows off-site road improvements, which are addressed as part of the Proposed Project. These off-site roads include Pala Mesa Heights Drive, Pankey Road, Horse Ranch Creek Road, Street "R," and Pala Mesa Drive. The EIR discloses the impacts associated with these road improvements. The statement that Warner Ranch was excluded from the cumulative traffic analysis is in error. Warner Ranch was included in the TIS cumulative traffic analysis and is included as #45 on Table 2.3-8 in the Final EIR, and page 68 of the TIS and page 337 of the TIS Appendix.

comprehensively. Other large scale projects to the east on SR76, such as Warner Ranch are not on the Comprehensive list although those residents will likely use the I-15/SR76 interchange as their main route. All projects should contribute fair share to these regional infrastructures to ensure no reduction of service for existing residents. O-9

This project is outside the MWD boundaries and has no water or water treatment service provider. These are critical obstacles that should be resolved prior to the project approval. O-10 O-11

Thanks-
Sandy Smith
31524 Oak Glen Rd
Valley Center, CA 92082

"Campbell, Dennis" <Dennis.Campbell@sdcounty.ca.gov>
10/08/2009 12:25 PM

To <Sandy_Smith@casb.uscourts.gov>
cc
Subject RE: Meadowood DEIR Public Review - for Andy Washburn, SmithTrager (SLR MWD)

Hello Sandy,

From your voicemail message, I was not aware that you were looking for the Interchange Master Specific Plan (MSP). I'm glad you found it. To my knowledge, the Board of Supervisors has not directly acted on the MSP, since its adoption in June 1988. The MSP is an interim plan and upon further study could change. The project applicants in the NE Quadrant have applied to amend the County General Plan, which includes the Fallbrook Community Plan and the MSP.

The existing General Plan allows approximately 805 dwelling units in the NE quadrant of that Interchange. For the same quadrant, the Draft Land Use Map recommends approximately 1,892 dwelling units.

As to Lake Ranch Viejo, in order to answer your question, I will need to conduct further research on that project. I have not been involved with it.
I may not make your deadline of tomorrow. However, I will do my best to respond before then.

Thank you, Dennis

Dennis Campbell
Land Use and Environmental Planner
Department of Planning and Land Use
County of San Diego
5201 Ruffin Road, Suite B
San Diego, CA 92123
Ph.: 858.505.6380
Fax: 858.694.3373

2

O-10 Please see response to comment O-3.

O-11 The comment is correct that the Project Site is outside the Metropolitan Water District, as well as County Water Authority boundaries. As stated in the EIR, a portion of the Project Site is within the San Luis Rey Municipal Water District and the remainder is outside the jurisdiction of any water and wastewater provider. If approved by the decision makers, the Proposed Project will be required to obtain LAFCO determination of the appropriate water and sewer service provider. Before any final approval is granted by the County, a Municipal Water District that will be the logical water and wastewater provider for the Proposed Project will have to be identified through the LAFCO process. The Proposed Project will then be required to be annexed into the Municipal Water District prior to obtaining final approval from the County. Water and sewer issues will therefore be resolved prior to the final approval being granted by the County.

-----Original Message-----
From: Sandy_Smith@casb.uscourts.gov [mailto:Sandy_Smith@casb.uscourts.gov]
Sent: Thursday, October 08, 2009 9:28 AM
To: Campbell, Dennis
Subject: Re: Meadowood DEIR Public Review - for Andy Washburn, SmithTrager (SLR MWD)

Dennis
Thanks for getting back to me. I found a copy of the I-15/76 Master Plan in the Fallbrook Community Plan. I am attaching it below.

Now that I've read it, I have more questions.

Why are these projects not following this plan? The MSP requires them to work together for the entire site, not as separate projects. Was this waived by the BOS in some board action?
The MSP allows for a maximum 956 dwelling units. What does the existing GP allow? What about the GPU Draft Land Use map? I know the Referral map allows for 1400 units. The project descriptions seem to add up to 2315 units.
Is lake Rancho Veijo project built out? The MSP allows for 816 units, but I see only 460 have been built at this time.

I am trying to make sense of these numbers before I speak to the Planning Commission tomorrow, so it would really be helpful if you could share whatever responses you have as soon as possible.

(See attached file: fallbrook.I15.76 MSP.pdf)
Thanks-
Sandy
619-557-5935

"Campbell, Dennis" <Dennis.Campbell@sdcounty.ca.gov>
10/08/2009 08:37 AM

To <sandy_smith@casb.uscourts.gov>
cc
Subject Meadowood DEIR Public Review - for Andy Washburn, SmithTrager (SLR MWD)

Hello Ms. Smith:

In response to your question regarding a master site plan for developments that are located, at the NE quadrant of the I-15/SR 76 interchange, I do not have a detailed master plan, at this time. The Campus Park DEIR is now out for public review and you may view that plan, at:
http://www.sdcounty.ca.gov/dplu/ceqa/GPA03-004.html

Please note that the Campus Park West development's DEIR has not yet been prepared.

Thank you, Dennis

3

Dennis Campbell
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Ph.: 858.505.6380
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4

Letter P

SANDAG

401 B Street, Suite 800
San Diego, CA 92101-4231
(619) 699-1900
Fax (619) 699-1905
www.sandag.org

October 14, 2009

File Number 7000300

LATE
REC'D 10/16/09

Mr. Dennis Campbell
Department of Planning and Land Use
County of San Diego
5201 Ruffin Road, Suite B
San Diego, CA 92123

Dear Mr. Campbell:

SUBJECT: The Meadowood Project Draft Environmental Impact Report and General Plan Amendment / Specific Plan Amendment

Thank you for the opportunity to comment on the Draft Environmental Impact Report and General Plan Amendment / Specific Plan Amendment for the Meadowood Project. P-1

Our comments, which are based on policies included in the Regional Comprehensive Plan (RCP) and the Regional Transportation Plan (RTP), are submitted from a regional perspective emphasizing the need for land use and transportation coordination and implementation of smart growth principles. P-2

Freeway Impacts

- Fair share mitigation for impacts to the I-15/SR 76 interchange should be identified in the EIR. Timing considerations of the SR 76 East project should not be the basis for Overriding Considerations. It is the position of SANDAG that fair share towards improvements to the I-15/SR 76 interchange is feasible and reasonable under the California Environmental Quality Act (CEQA). P-3
- The recently approved Palomar College EIR includes fair share mitigation towards the I-15/SR 76 interchange improvements. Approval of the Meadowood EIR without fair share mitigation for the I-15/SR 76 improvements would be in conflict with the Palomar College EIR. P-4

Multimodal Transportation Analysis

The 2030 Regional Transportation Plan provides a multimodal approach to meet the region's transportation needs. As such, it is requested that the traffic analysis for this project also consider balancing the needs of motorists, transit riders, pedestrians, and bicyclists, and include the following impact analysis. P-5

MEMBER AGENCIES
Cities of
Carlsbad
Chula Vista
Coronado
Del Mar
El Cajon
Encinitas
Escondido
Imperial Beach
La Mesa
Lemon Grove
National City
Oceanside
Poway
San Diego
San Marcos
Santee
Solana Beach
Vista
and
County of San Diego

ADVISORY MEMBERS
Imperial County
California Department of Transportation
Metropolitan Transit System
North County Transit District
United States Department of Defense
San Diego Unified Port District
San Diego County Water Authority
Southern California Tribal Chairmen's Association
Mexico

P-1 Introductory comment noted. No response is necessary.

P-2 Comment noted.

P-3 Please see response to comment B-2.

P-4 Please see response to comment B-2.

P-5 Project design measures illustrate the Proposed Project's incorporation of the RTP's multimodal approach. Specifically, Subchapter 1.2.1, *County of San Diego*, Circulation, provides a brief description of the trail plan which includes pedestrian and bicycle paths to connect on- and off-site areas. Additionally, in recognition that the 2030 RTP identifies that the northeast quadrant of I-15 and SR-76 is planned for BRT and High Frequency Local bus service, the Proposed Project will be conditioned to participate, along with the other projects in the vicinity, in the contribution of funds for the acquisition, design, and construction of a future Transit Node. This project design measure is included in Table 1-5. Subchapter 1.2.1, *County of San Diego*, Circulation, of the Final EIR has been revised to clarify that the Proposed Project will include bus turnouts along Horse Ranch Creek Road.

Transportation Demand Management (TDM). Please consider providing strategies to ensure implementation of alternatives to driving alone during peak periods, such as carpooling, vanpooling, telecommuting, flexible work hours for employees, and implementation of a Transportation Demand Management (TDM) plan as a part of this project to help mitigate regional transportation impacts. We recommend contacting SANDAG's RideLink to explore transit options, the regional vanpool program, ride-matching services, a guaranteed-ride-home program, regional bicycle lockers, and SchoolPool services. RideLink also provides free consulting services to help local businesses implement employee commute programs. P-6

Bicycle/Pedestrian Access. In general, the project should provide appropriate connectivity and facility integration to nearby local residences and businesses. Improved bicycle and pedestrian access to local destinations can help mitigate the traffic effects of projects and provide mobility options for residents. P-7

Consult with NCTD and Caltrans. It is advised that the project applicant also consult with the North County Transit District (NCTD), the transit service provider within the project area, and also with Caltrans to coordinate planned transit and/or highway improvements, if any. P-8

Additionally, when analyzing future (2030) traffic conditions, SANDAG recommends using the transportation network included in the RTP Reasonably Expected funding scenario. P-9

Natural Environment:

A key RCP objective is to preserve and maintain natural areas in urban neighborhoods, such as canyons and creeks, and provide access for the enjoyment of the region's residents. Please consider this criteria if applicable to your project. P-10

Conclusion

We appreciate the opportunity to comment on the Draft EIR for the Meadowood Project. We encourage the County to evaluate the project based on SANDAG's two design guideline publications: (1) Designing for Smart Growth, Creating Great Places in the San Diego Region; and (2) Planning and Designing for Pedestrians, Model Guidelines for the San Diego Region. Both publications can be found on our Web site. P-11

If you have any questions or concerns regarding SANDAG's comments on the DEIR, please contact me at 619.699.1943 or sba@sandag.org. P-12

Sincerely,



SUSAN BALDWIN
Senior Regional Planner

SBA/RSA/sgr

2

P-6 To be conservative, the Meadowood TIS was prepared without a TDM program, thus the highest amount of project traffic was added to the surrounding roadways. A TDM program for carpooling would not be applicable for a residential project such as the Proposed Project. TDM programs are best suited for employer based projects (traffic destination).

P-7 As shown in the Trails Plan (Final EIR, Figure 1-3), the Proposed Project includes bicycle/pedestrian trails throughout which connect to the nearby commercial areas in the Campus Park project and to the Palomar College site. The trails plan also allows for connectivity to the south of SR-76 via trails along Pala Mesa Drive and to the north via a trail along Pankey Road.

P-8 Comment noted. The County and applicant have coordinated with NCTD and Caltrans regarding transit and highway improvements.

P-9 The County concurs with this comment. Accordingly, the TIS and EIR traffic analysis based future (2030) Series 11 traffic volumes on SANDAG's traffic model that utilized the "Reasonably Expected" network as defined in the RTP.

P-10 As seen in the Final EIR, Figure 1-2, the majority of the eastern and northern portions of the Project Site would be maintained as natural open space. Trails in this open space will be accessible to the region's residents.

P-11 Comment noted.

P-12 Closing comment noted.

Letter Q

San Diego County Water Authority
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(858) 522-6600 FAX (858) 522-6568 www.sdcwa.org

October 27, 2009

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OTHER REPRESENTATIVE
County of San Diego

Mr. Dennis Campbell
County of San Diego
Department of Planning and Land use
5201 Ruffin Road, Suite B
San Diego, CA 92123

Subject: **Comments on the Meadowood Project Draft EIR – SCH. No. 2004051028**

Dear Mr. Campbell:

The San Diego County Water Authority (Water Authority) has reviewed a copy of the above-referenced document on the County's website. The Water Authority has examined the relevant portions of the document and offers the following comments and clarifications. } Q-1

The Water Authority attended a consultation meeting on May 11, 2009, with the County of San Diego, the Project Proponent, Rainbow Municipal Water District, Valley Center Municipal Water District, San Luis Rey Municipal Water District, and LAFCO. At that meeting, the Water Authority raised a concern that the Project's *draft* Water Supply Assessment and Verification (WSA&V) report did not contain information regarding the recent regulatory restrictions placed on the State Water Project (SWP), resulting in reduced supply deliveries. The Water Authority had requested that the WSA&V report be updated to reflect the current SWP conditions. After reviewing the final WSA&V, included as Technical Appendix O-2 to the draft EIR, the Water Authority requests the following changes be made in the interest of full disclosure, in light of the current SWP situation: } Q-2

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Chapter 2, Findings

Page 2, third paragraph, first sentence and last sentence: … "If the Water Authority and member agency supplies are developed as planned, along with implementation of Metropolitan's IRP, no shortages are anticipated within the Water Authority's service area in a normal year through 2030."…"The analysis through 2030 demonstrates that the Water Authority will be able to meet the normal, single, and multiple dry year demands with a demand by the Meadowood project of 1,000 ac-ft/yr."

Q-1 Introductory comment is noted. No response is necessary.

Q-2 Subchapter 4.6.4, Water Supply, of the Final EIR and the WSA&V have been revised to state that the Metropolitan Water District's (MET) Integrated Resource Plan (IRP) has not been developed as planned; however, sufficient evidence is available to make the finding in accordance with Government Code Section 66473.7 that sufficient water supply is available as follows:

- Water Code Section 10910 indicates that the water supply determination should be based on the latest UWMP from the providing agency. The EIR and WSA&V utilized the most current UWMP available which demonstrates that sufficient water supply is available for current and future demands, specifically including the Proposed Project. The Metropolitan and Water Authority documents and plans referenced in this comment have been cited in the text of the EIR as requested by the Water Authority.

- Although there are no real "contracts" which exist between the water districts and the SDCWA, the SDCWA essentially promises to provide the member agencies with the supplies they need based on the supplies they have. There is no evidence of current uncertainties regarding water supply, but if there were the SDCWA would rely on its Drought Management Plan (DMP) to assure fair distribution of supply during shortages. Both the SDCWA and MET have planning documents in place to address water shortages and have implemented these plans over the past year as necessary.

Subchapter 4.6.4, Water Supply of the Final EIR has been revised to clarify that changed supply conditions have triggered the implementation of these plans in an effort to manage short-term supply conditions and long term supply reliability.

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Q-2 (cont.)

Additionally, Subchapter 4.6.2, Water Supply and Service, of the Final EIR has been revised to include an overview of the SDCWA DMP Water Supply Allocation Plans (WSAP) and details are provided in this response. The DMP provides a regional approach to managing shortage situations by developing methods to reduce demands and augment supplies. Part of this plan includes WSAPs for its member agencies. WSAPs are created based on a specific methodology beginning with a determination of each agency's base period demands upon which adjustments are added to account for local supply conditions and demand characteristics.

Next, the amount of municipal and industrial (M&I) supplies available from the SDCWA is determined. This includes SDCWA's own supplies along with supplies available from MET. The individual member agency's percent share of the total regional M&I adjusted base period demand is calculated and then multiplied by the total SDCWA M&I supplies available. This results in an allocation for each member agency. The WSAPs were most recently revised in December 2008 due to changes in MET's February 2008 WSAP.

Prior to implementing WSAPs to reduce demands, the SDCWA DMP outlines mechanisms and approaches to reduce or eliminate shortages. These efforts include ongoing implementation of BMPs, calling for voluntary conservation, securing and calling transfer options, and buying spot transfers. Examples of measures recently implemented by the SDCWA include their March 2009 contract with Placer County Water Agency to purchase 20,000 acre-feet of dry year supplies. In April 2009, SDCWA declared a drought response "Drought Alert" Level 2 Condition .In response the SDCWA Board authorized the General Manager to call for this water.

Although Subchapter 4.6.2 of the EIR does contain a brief discussion of the series of actions available to respond to different stages of drought, additional detail is provided below to

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Q-2 (cont.)

clarify this issue. The potentials actions associated with drought response as outlined in the DMP are generally grouped in three stages. These stages are as follows:

- Stage 1, Voluntary –The voluntary stage would likely occur when MET has been experiencing shortages in its imported water supply (from either the Colorado River or the State Water Project, or both) and is withdrawing water from storage due to the drought conditions to meet normal demands. Voluntary action could include ongoing BMP implementation, communication strategy, monitoring supply conditions and storage levels, call for voluntary conservation, draw from SDCWA Carryover Storage, and secure transfer option contracts.

- Stage 2, Water Authority Supply Enhancement – This stage would occur when MET reduces water deliveries to its member agencies. The SDCWA Board of Directors will consider the potential actions in this stage, to eliminate any cutbacks to the member agencies from the reduction in MET supplies. Examples of actions in this stage include those same actions in Stage 1 plus buy phase 1 spot transfers, call transfer options, and buy phase 2 spot transfers.

- Stage 3, Mandatory Cutbacks – The final stage follows once both MET and the SDCWA Board have exhausted all supply enhancement options due to lack of supplies and/or increasing costs, and mandatory cutbacks are required. Examples of actions in this stage include those same actions in Stage 2 plus implement of WSAPs, and utilize ESP supplies.

Based on the SDCWA Model Drought Response Ordinance, both VCMWD and RMWD have adopted their own drought response plans to address new development in times of supply cutbacks from the SDCWA. Subchapter 4.6.2, Pertinent Regional Water Supply Plans, of the Final EIR has been revised to include a summary of these programs. VCMWD Water Shortage Response Program contains items related to new development as follows:

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Q-2 (cont.)

- Level 1, Watch Condition – Availability letters are still issued, but with qualifications concerning the uncertainty of the future water supply availability and its impact on the ability of the District to provide actual water service in the future.

- Level 2, Alert Condition – No new statements of availability shall be issued unless the applicant provides substantial evidence of an enforceable commitment that the net water demands for the project from the District will be offset prior to the provision of any new water meter(s) for the project.

- Level 3, Critical Condition – The same requirements as Level 2; however, only existing (not new) annexations will be considered with the appropriate offset.

- Level 4, Emergency Condition - any and all development and annexation processing with associated direct water usage shall be terminated and no new temporary or permanent potable water meters shall be provided under any circumstance until the Level 4 condition abates, except for those meters for projects required to protect public health and safety.

RMWD Drought Response Ordinance, similarly contains items related to new development as follows:

- Level 1, Watch Condition – No conditions apply.

- Level 2, Alert Condition – No new services and no statements of immediate ability to serve or provide potable water service (such as, will serve letters, certificates, or letters of availability) unless the applicant provides substantial evidence of an enforceable binding commitment that water demands for the project will be offset prior to the provision of a new water meter. Annexation considerations are suspended.

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Q-2 (cont.)

- Level 3, Critical Condition – Same requirements as Level 2.
- Level 4, Emergency Condition – Same requirements as Level 3.

Presently, the SDCWA is at a Drought Response Level 2, "Drought Alert" and at a Drought Management Plan Stage 3, "Mandatory Cutbacks." In April 2009, Rainbow MWD declared a Level 2 Drought. Valley Center MWD declared a Level 2 Drought in May 2009. Subchapter 4.6.2 of the Final EIR has been revised to reflect the District's drought levels.

In summary, there are mechanisms in place through implementation of both SDCWA and individual MWD planning documents that allow active management of short-term supply conditions to assure long term supply to the Project Site.

COMMENT 1: The statements here are inaccurate, given that supplies from Metropolitan's IRP have *not* been developed as planned (i.e., SWP cutbacks), and the Water Authority is at risk for shortages. Text should be added after the first sentence that supplies from Metropolitan's IRP have not been developed as planned. (See bullet points at the bottom of page 4-50, Chapter 4 of the draft EIR, on SWP changed conditions.)

The last sentence should be stricken and replaced with the following language: "*There are current uncertainties regarding the Water Authority's supplies from Metropolitan due to the changed condition associated with the SWP deliveries. The changed conditions put into question the sufficiency of the Water Authority's supplies in the short-term. To manage the current short-term supply condition, the Water Authority is implementing its Drought Management Plan. Metropolitan is also implementing its WSDM, 5-Year Action Plan, and Water Supply Allocation Plan. To plan for long-term supply reliability, the Water Authority continues to implement its diversification strategy, will participate in the update of Metropolitan's IRP and update its UWMP in 2010 to reflect changed supply conditions.*"

Q-2

These same changes should also be made to Chapter 5, page 14, of the WSA&V report, "Water Supply Reliability", third paragraph, fifth sentence, beginning: "The plan states that if projected Water Authority and member agency supplies are developed as planned, no shortages are anticipated to occur."

Q-3

Q-3 Please refer to response to comment Q-2.

Chapter 1.0 – Project Description, Location and Environmental Setting

Section 1.2, Project Description Overview, LAFCO

Page 1-11, third paragraph, second sentence: "Furthermore, should the SLRMWD be selected, it will need to apply for membership to the Water Authority and Metropolitan."

COMMENT 2: Please note the current Water Authority annexation policy, which states: "Addition of territory through annexation of a new member agency shall be discouraged...".

Q-4

Q-4 Although the SDCWA annexation policy discourages the addition of new members, the fact remains that in order for SLRMWD to serve the Project Site, it will require annexation.

Section 1.5, Intended Uses of the EIR

Page 1-23, Table 1-6, and last paragraph, second sentence: "The responsible agencies are LAFCO, MET, and SDCWA…"

COMMENT 3: It is acknowledged that the Water Authority (i.e., SDCWA) is a Responsible Agency under CEQA, pursuant to Section 15381 of the State CEQA Guidelines. The Water Authority was not included on the mailing list for the Notice of

Q-5

Q-5 The County acknowledges that the SDCWA is a Responsible Agency under CEQA, as indicated by the comment. The County apologizes for the administrative oversight. This comment letter has been included in the Response to Comments portion of the EIR.

Preparation or the Notice of Availability of a Draft EIR for the Project; thus, the Water Authority did not receive the notice for either of these important CEQA documents, therefore missing the opportunity to comment during scoping. } Q-5

Chapter 4.0, Environmental Effects Found Not to be Significant

Section 4.6.4 Analysis of Project Effects and Determination as to Significance

Water Supply

Page 4-51, third paragraph, first sentence: "As detailed in the WSA&V, the water supply analysis through 2030 demonstrates that the SDCWA will be able to meet the normal, single, and multiple dry year demands of the Proposed Project."

COMMENT 4: This sentence is inaccurate and will now need to be modified using the language provided in Comment 1 above for the WSA&V. } Q-6

Page 4-51, fourth paragraph, fifth sentence: "Regardless of the reduced water demand these actions yield, the Proposed Project will further reduce its water demand by participating in offset programs or projects offered by SDCWA…"

COMMENT 5: At this time, the Water Authority does not anticipate offering offset programs or projects. Offset projects or programs may be developed through the local member agencies, however the Proposed Project should not rely on the assumption that offset programs or projects will be in place. The Proposed Project may have to develop its own projects to offset anticipated project demands. Text should also be added that any offset projects might be subject to further CEQA review, outside the scope of this document. } Q-7

Thank you for this opportunity to comment. Please retain the Water Authority on your mailing list to receive the final EIR and any other information concerning this project. If you have any questions, please contact Ms. Kelley Gage at (858) 522-6763.

Sincerely,

Dana Friehauf
Principal Water Resources Specialist

cc: Kelley Gage, SDCWA

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Q-6 Please refer to response to comment Q-2.

Q-7 The requirement for net zero comes from the County Water Authority's Model Drought Response Ordinance – March 2008, which states "The applicant provides substantial evidence of an enforceable commitment that water demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of the member agency." Consistent with SDCWA, VCMWD and/or RMWD policies, Subchapter 4.6.4, Water Supply, Table 1-5 and Chapter 8 (MMRP) of the Final EIR have been revised to reflect that the Proposed Project will be conditioned to provide net zero demand on SDCWA supplies, regardless of the existence of off-set programs.

Further, the EIR and WSA&V identify examples of offset programs and projects which the Proposed Project could develop independently. Subchapter 4.6.4, Water Supply of the Final EIR has been revised as follows," offset programs and projects generally fall into three categories - potable water conservation, expanded use of recycled water, and supply development. Examples of conservation programs include utilization of low-flush toilets, low-use fixtures, and weather-based irrigation controllers (details of a project sponsored exchange program would be decided by the MWD). Infrastructure could be funded by the project which would increase recycled water use within a MWD. A recent example is project in the City of San Diego which extended an existing recycled water line to a school site. In this case, the project financed and constructed the improvement to provide recycled water in order to replace the use of potable water. The third off-set program type involves the development of new supply. This could include financially participating in projects such as the Oceanside or Sweetwater Desalting plants which treat brackish groundwater and ocean water for potable water supply."

Preparation or the Notice of Availability of a Draft EIR for the Project; thus, the Water Authority did not receive the notice for either of these important CEQA documents, therefore missing the opportunity to comment during scoping.

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cc: Kelley Gage, SDCWA

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Q-7

While the specific offset program(s) will be identified during the annexations proceedings and the sphere of influence update process which will occur after approval of the Proposed Project, Subchapter 4.6.4, Water Supply of the Final EIR has been revised to state, "Should the MWD select the off-set program where recycled water improvements are required, infrastructure shall be placed within existing roadways avoiding any potential impacts associated with construction. The implementation of the off-set project shall be a condition of annexation into the SDCWA and MWD prior to the delivery of water."

Q-8 Closing comment is noted. The County will retain the SDCWA on its mailing list to receive the EIR.

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STATEMENT OF LOCATION AND CUSTODIAN OF DOCUMENTS OR OTHER MATERIALS THAT CONSTITUTE A RECORD OF PROCEEDINGS

December 14, 2011

Project Name: Meadowood project

Reference Case Numbers: GPA04-02; SP04-01;R04-004; TM5354; S04-005, S04-006, S04-007; AND LOG NO. ER 04-02-004

STATE CLEARINGHOUSE NO. 2004051028

The CEQA [Section 21081.6(a)(2)] requires that the lead agency (in this case the County of San Diego) specify the location and custodian of the documents or other material that constitute the record of proceedings upon which it decision is based. It is the purpose of this statement to satisfy this requirement.

Location of Documents and Other Materials That Constitute the Record of Proceedings:

County of San Diego, Department of Planning and Land Use
Project Processing Center
5201 Ruffin Road, Suite B
San Diego, California 92123

If this project was subject to a hearing by the County of San Diego Board of Supervisors the following is also a location of documents and other materials that constitute the record of proceedings:

County of San Diego, Clerk of the Board of Supervisors
1600 Pacific Highway, Room 402
San Diego, California 92101

Custodian:

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FINAL ENVIRONMENTAL IMPACT REPORT

Meadowood Project
GPA04-002; SP04-001; R04-004; TM5354; S04-005, S04-006, S04-007;
P08-023 and Log No. ER 04-02-004
SCH #2004051028

Lead Agency:

County of San Diego
Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego, CA 92123

EIR Preparer:

RECON Environmental, Inc.
1927 Fifth Avenue, CA 92101
Phone: (619) 308-9333

Project Proponent:

Pardee Homes

December 14, 2011

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LIST OF ACRONYMS

AAQS	Ambient Air Quality Standards
ACM	Asbestos Containing Materials
ACOE	U.S. Army Corps of Engineers
ADT	Average Daily Trips
af/y	Acre-feet per year
AQIA	Air Quality Impact Assessments
AST	Aboveground storage tanks
AWM	Department of Agriculture Weights and Measures
BAAQMD	Bay Area Air Quality Management District
BAU	Business as usual
BLM	Bureau of Land Management
BMO	Biological Mitigation Ordinance
BMPs	Best Management Practices
BUESD	Bonsall Union Elementary School District
CAA	Clean Air Act
CAFE	Corporate Average Fuel Economy
CalArp	California Accidental Release Prevention Program
CalEPA	California Environmental Protection Agency
CALINE	California Line Source Model
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCAP	Climate Change Action Plan
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFG	California Department of Fish and Game
CEC	California Education Code
CEQA	California Environmental Quality Act
CFS	Cubic feet per second
CGB	California Green Building
CHHSLs	California Human Health Screening Levels
CLOMR	Conditional Letter of Map Revision
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Data Base
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon monoxide
County	County of San Diego
CRHR	California Register of Historic Resources
CUDA	Current Urban Development Area
CUWCC	California Urban Water Conservation Council
CWA	Clean Water Act
dB	Decibels
dBA	A-weighted decibels
DEH	Department of Environmental Health
DHS	California Department of Health Services
DMP	Drought Management Plan

DPLU	Department of Planning and Land Use
DTAC	Departmental Transportation Advisory Committee
du/ac	Dwelling units per acre
EDU	Equivalent dwelling units
EIR	Environmental Impact Report
EMFAC	Emission Factor
EPA	U.S. Environmental Protection Agency
ESA	Environment Site Assessment
ESP	Emergency Storage Project
º F	Degrees Fahrenheit
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FPP	Fire Protection Plan
FUESD	Fallbrook Union Elementary School District
FUHSD	Fallbrook Union High School District
GHG	Greenhouse gases
GPA	General Plan Amendment
GWP	Global warming potential
HAs	Hydrologic Areas
HAPs	Hazardous Air Pollutants
HCP	Habitat Conservation Plan
HFCs	Hydrofluorocarbons
HLP	Habitat Loss Permit
HMD	Hazard Management Department
HMBP	Hazardous Materials Business Plan
HMP	Habitat Management Plan
HOA	Homeowners' Association
I-15	Interstate 15
IRP	Integrated Resource Planning
KOP	Key Observation Point
kWh	Kilowatt hours
LAFCO	Local Agency Formation Commission
LBP	Lead Based Paint
LCFS	Low Carbon Fuel Standard
LCS	Lead-containing surfaces
LEFMP	Law Enforcement Facilities Master Plan (2005)
LESA	Land Evaluation and Site Assessment
L_{eq}	Equivalent sound level
LID	Low Impact Development
LOMR	Letter of Map Revision
LOS	Level of service
LUST	Leaking Underground Storage Tank

MBTA	Migratory Bird Treaty Act
MBTRA	Migratory Bird Treaty Reform Act
MET	Metropolitan Water District of Southern California
mgd	Million gallons per day
MLD	Most Likely Descendent
MOU	Memorandum of Understanding
mpg	Miles per gallon
mph	Miles per hour
MRZ	Mineral resource zone
MSA	Major Statistical Area
MSCP	Multiple Species Conservation Program
MSL	Mean Sea Level
MSP	Master Specific Plan
MSPA	Master Specific Plan Area
MSR	Municipal Service Review
MUP	Major Use Permit
MWD	Municipal water district
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NCFPD	North County Fire Protection District
NEPA	National Environmental Policy Act
NOP	Notice of Preparation
NO_x	Nitrogen oxide
NO_2	Nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
NSLU	Noise Sensitive Land Use
ODS	Ozone depleting substance
OES	Office of Emergency Services
O_3	Ozone
PAMA	Pre-Approved Mitigation Area
Pb	Lead
PCC	Portland Cement Concrete
PCE	Primary Constituent Elements
PFA	Project Facility Availability
PFC	Project Facility Commitment
PFCs	Perfluorocarbons
$PM_{2.5}$	Particulate matter less than or equal to 2.5 microns
PM_{10}	Particulate matter less than or equal to 10 microns
ppm	Parts per million
pphm	Parts per hundred million
PRG	Preliminary Remediation Goals
PSR	Project Study Report
QSA	Quantification Settlement Agreement
RAQS	Regional Air Quality Strategy
RCP	Regional Comprehensive Plan

RDA	Rural Development Area
RFI	Request for Information
RMP	Risk Management Plan
RMWD	Rainbow Municipal Water District
ROG	Reactive organic gases
RPO	Resource Protection Ordinance
RTP	Regional Transportation Plan
RWFMP	Regional Water Facilities Master Plan
RWQCB	Regional Water Quality Control Board
SAM	Site Assessment and Mitigation Program
SAMP	Special Area Management Plan
SANDAG	San Diego Association of Governments
SANGIS	San Diego Geographic Information Systems
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCIC	South Coastal Information Center
SCW	South Coast Wildlands
SDAB	San Diego Air Basin
SDCAPCD	San Diego County Air Pollution Control District
SDCWA	San Diego County Water Authority
SDG&E	San Diego Gas & Electric
SF_6	Sulfur hexafluoride
SG	Significance Guidelines
SIP	State Implementation Plan
SLRBMI	San Luis Rey Band of Mission Indians
SLRMWD	San Luis Rey Municipal Water District
SO_2	Sulfur dioxide
SOI	Sphere of Influence
SPA	Specific Plan Amendment
SRA	Subregional Areas
SR-76	State Route 76
SR-91	State Route 91
SSA	Special Study Area
STLC	Soluble Threshold Limit Concentration
STP	Shovel Test Pits
SWMP	Storm Water Management Plan
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
TAC	Toxic air contaminants
TAZ	Traffic Analysis Zone
TCM	Transportation control measures
TDS	Total Dissolved Solids
TIF	Transportation Impact Fee
TMDL	Total Maximum Daily Load
TPH	Total Petroleum Hydrocarbons
UBC	Uniform Building Code
UNEP	United Nations Environment Program
UNFCCC	United Nations Framework Convention on Climate Change

USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	Underground storage tank
UWMP	Urban Water Management Plan
V/C	Volume to capacity ratio
VCMWD	Valley Center Municipal Water District
VMT	Vehicle miles traveled
VOCs	Volatile organic compounds
VTM	Vesting Tentative Map
WPO	Watershed Protection, Stormwater Management, and Discharge Control Ordinance
WSA&V	Water Supply Assessment and Verification
WSDM	Water Surplus and Drought Management Plan
WWTP	Wastewater Treatment Plant

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EXECUTIVE SUMMARY

S.1 Project Synopsis

Project Location

The proposed 389.5-acre Meadowood Project Site is located just north of State Route 76 (SR-76), approximately one-quarter mile east of Interstate 15 (I-15) in the Fallbrook Community Planning Area. The Meadowood project (Proposed Project) is located directly east and adjacent to the approved Palomar College campus project and the Campus Park and Campus Park West properties, which are planned communities active in the planning process. Southeast of the Project Site is Rosemary's Mountain Rock Quarry site, which has an approved Major Use Permit (MUP). The land to the north and east is undeveloped and consists of citrus and avocado orchards and natural open space.

Project Description

The Proposed Project entails the development of a residential community of up to 844 units (up to 886 dwelling units if the Bonsall School District decides not to build on the school site) with an overall density of 2.3 dwelling units per acre (du/ac). Residential density within the planning areas ranges from 2.7 du/ac for the single-family units, to 13.5 du/ac for a portion of the multi-family units. The higher density planning areas are clustered in the flatter, western portions of the property, adjacent to the more urban uses proposed in the Campus Park and Campus Park West projects; while single-family residences are proposed in the higher elevations below the groves and open space.

The Proposed Project will consist of a mix of single-family and multi-family units, an elementary school site, a neighborhood park, pocket parks, 5.9 miles of multi-use trails and supporting infrastructure, including a wastewater treatment plant (WWTP), water storage tanks, and nine detention basins. Open space is proposed to retain 49.3 acres of the existing citrus and avocado groves, along with 122.4 acres of sensitive biological habitat.

The main access will be taken via Horse Ranch Creek Road, which will extend north from SR-76 and connect to Pankey Road, which will then connect to Stewart Canyon Road. The internal street system would consist of two-lane residential streets to serve future residents. These streets are planned to ensure adequate circulation with the Campus Park, Palomar Community College District, and Campus Park West projects. A paved road, extending northeasterly from Street E to Rice Canyon Road, will provide fire access.

Development of the Proposed Project will be phased over several years. Phasing would be coordinated with the availability of water, sewer, fire protection, and school services. The Proposed Project would also be phased by recording several different final maps, but all the proposed development areas would be graded at one time. Each recorded map would be required to comply with the provisions and guidelines within the proposed Meadowood Specific Plan Amendment, which includes a Community Design Element containing policies to address visual quality aspects of the proposed common areas, including streetscape, entry treatments, parks, pedestrian circulation, lighting, signs, and landscaping.

Currently, the Proposed Project is partially within the San Luis Rey Municipal Water District (SLRMWD) and the remaining portion is not within the jurisdiction of any water or wastewater service provider. The Local Agency Formation Commission (LAFCO) will examine the suitability of the three agencies in the project vicinity, the SLRMWD, the Rainbow Municipal Water District (RMWD), and the Valley Center Municipal Water District (VCMWD), as potential service providers. Upon LAFCO's determination, the Proposed Project must be annexed into the appropriate Municipal Water District (MWD), as well as into the San Diego County Water Authority (SDCWA) and the Metropolitan Water District of Southern California (MET). Regardless of the MWD that is selected, the applicant would construct all needed water and wastewater facilities to serve the Proposed Project.

The required facilities for each MWD are shown on Figures 1-5 and 1-6 and itemized in Tables 1-3 and 1-4. All on- and off-site impacts associated with the construction of the preferred alignment of water supply facilities related to individual resource areas are detailed throughout the following chapters: Aesthetics (Chapter 2.1), Air Quality (Chapter 2.2), Traffic (Chapter 2.3), Biology (Chapter3.1), Geology and Soils (Chapter 3.2), Cultural Resources (Chapter 3.3), Noise (Chapter 3.4), and Hazards (Chapter 3.5).

The Proposed Project seeks the following discretionary actions from the County:

- General Plan Amendment (GPA)
- Specific Plan Amendment (SPA)
- Rezone
- Vesting Tentative Map (VTM)
- MUP for operation of a WWTP
- Three site plans

In addition, annexation of the Proposed Project into the North County Fire Protection District (NCFPD) for fire protection services, into a MWD for water and wastewater service, and into the SDCWA and the MET for water service requires LAFCO's approval.

Project Objectives

The primary goal of the Proposed Project is to accommodate housing demand based on projected population increases while retaining the existing rural atmosphere in the area. Overall, the Proposed Project seeks to balance population and housing needs with open space, agricultural land use, and the development of infrastructure for the community. The specific project objectives are summarized as follows:

1. Provide a variety of residential land uses to allow for residential development that meets the demand for housing in the region consistent with the rustic charm of Fallbrook.

2. Provide an opportunity for home ownership by increasing the housing supply with a variety of owner occupied housing types in Fallbrook.

3. Provide for preservation of significant environmental and visual resources by conserving environmentally sensitive lands, prominent ridgelines, and regional wildlife corridors while recognizing and mitigating for wildfire potential.

4. Provide for land uses that relate to the community in conjunction with the three neighboring projects.

5. Maintain agricultural uses as a buffer to natural lands.

6. Provide educational and recreational opportunities in close proximity to residential uses, accessible by public roads and trails.

7. Coordinate public facilities and infrastructure with adjacent landowners and ensure availability concurrent with need.

8. Require permanent preservation of natural open space areas, while allowing public recreational opportunities.

9. Through LAFCO's Sphere of Influence (SOI) determination, identify the most efficient service provider to ensure provision of water, wastewater, and recycled water to support anticipated growth consistent with County of San Diego (County) land use decisions.

10. To provide fire and emergency services, potable water service, and wastewater service to the Project Site through annexation into the NCFPD and into a MWD, SDCWA, and MET.

Environmental Setting

The Project Site is within the unincorporated area of northern San Diego County, within the Fallbrook Community Planning Area. The topography is characterized by the east-west San Luis Rey River Valley along the SR-76 corridor and the north-south I-15 corridor. Both the San Luis Rey River floodplain and the I-15 corridor are flanked by rolling hills, which have historically been used for citrus and avocado groves, estate residences, and open space, with cattle grazing also occurring in the more rugged terrain. Row-crop agriculture is practiced to the east of the Monserate Mountain ridgeline, within Rice Canyon. A rocky outcrop, known as Rosemary's Mountain, comprises the southernmost toe of the Monserate Mountain ridge and abuts the southeastern corner of the Project Site.

Several hundred homes of varying types exist in the area surrounding the Project Site, including farm homes on large parcels with citrus and avocado groves, detached single-family homes in the Lake Rancho Viejo subdivision, and mobile homes in the Rancho Monserate Mobile Home Park.

There are several other development projects planned within the immediate vicinity of the Proposed Project. Campus Park is the proposed project immediately adjacent to the Proposed Project on the west and includes single-family and multi-family residential uses, a town center, parks, office professional uses, and recreational facilities. Additionally, the Palomar Community College District proposes to build its North Education Center campus within a portion of the Campus Park project site. The

proposed Campus Park West project is located at the northeast corner of I-15 and SR-76. The land comprising these three projects is currently primarily open space and pastureland.

The land to the north and east of the Project Site is undeveloped and consists of citrus and avocado groves and natural open space. South of SR-76 and the San Luis Rey River is the Lake Rancho Viejo residential project. West of I-15 and south of the San Luis Rey River are the Rancho Monserate Mobile Home Park and the RMWD offices and work yard. There is a gas station, a restaurant, and a park-and-ride facility in the northwest quadrant of the I-15/SR-76 intersection. Additionally, to the west of I-15 are several residential and resort projects including Pala Mesa Highlands, Pala Mesa Condominiums, and the Pala Mesa Shopping Center.

The Project Site is characterized by diverse topography and a variety of vegetation types and habitats. It occupies the eastern portion of a well-defined valley surrounded by steep hills. The dominant feature is Monserate Mountain, the southern ridgeline of which occupies the eastern portion of the site. The topography of the Project Site ranges from gently sloping, sparsely vegetated terrain approximately 260 feet above mean sea level (MSL) at the southwestern end of the site, nearest to the San Luis Rey River, to the steeply sloping ridgeline along the northeastern portion of the site, which is the southern flank of Monserate Mountain with an elevation of approximately 840 feet above MSL. The eastern boundary descends into Rice Canyon, most of which is farther to the east. The site generally drains to the south and west and eventually into the San Luis Rey River.

The rugged and undeveloped terrain in the northern and eastern portions of the Project Site support disturbed and undisturbed southern mixed chaparral, coastal sage scrub vegetation, disturbed coastal sage scrub, and coast live oak woodland. Wetland areas on the Project Site support mixed willow-mule fat riparian scrub at the western boundary and two isolated freshwater ponds with limited vegetation. These ponds are artificial and are used to irrigate the crops. In addition, the Project Site includes non-native annual grassland and a network of graded dirt roads and other disturbed or developed areas.

Current land uses on-site include agricultural activities, consisting mostly of citrus and avocado orchards. These activities take up most of the central and southern portions, or about 54 percent of the site. There are 13 homes, sheds, and agricultural buildings scattered throughout the site, none of which are historic.

Environmental Constraints

Environmental issues constraining development that were considered in the design of the Proposed Project include the following:

- Sensitive Biological Resources. The Project Site is part of a regional network of significant biological resources along the San Luis Rey River. Resources include wetlands, coastal sage scrub, and chaparral. The Proposed Project has been designed to conserve key habitat and wildlife corridors through the dedication of 122.4 acres of open space.

- Utility Services. Water and wastewater services are not currently available to the Project Site. The applicant has coordinated with the appropriate MWDs to identify

options for the provision of these services. A condition of approval of the Proposed Project will be the annexation into a MWD.

- Steep Slopes. Much of the Project Site contains steep slopes, as defined by County Ordinance, which includes a slope of 25 percent or greater which have a minimum rise of 50 feet. The Proposed Project has been designed to minimize development encroachment into these slopes.

- Visual Quality. The Project Site, especially the steeper slopes and ridges at the higher elevations, is visible from I-15 and adjacent homes and businesses along Pala Road. The visual characteristics of the property were considered in the Proposed Project design, which plans the more intense uses on the flatter portions of the Project Site at lower elevations. The prominent ridges and steeper slopes would be preserved in open space.

- Wildfire Hazards. The Project Site is in an area subject to wildfires and is within the SOI of the NCFPD. A Fire Protection Plan (FPP) has been prepared for the Proposed Project to reduce risks of wildfire hazards.

- To avoid impacting sensitive resources including agriculture, biology, steep slopes, and visual quality, the Proposed Project's design uses lot area averaging, in conformance with policies and regulations of the County of San Diego and the Fallbrook Community Plan.

S.2 Summary of Significant Effects and Mitigation Measures that Reduce or Avoid the Significant Effects

Table S-1 summarizes the results of the environmental analysis completed for the Proposed Project. Table S-1 also includes mitigation measures to reduce or avoid the environmental effects, with a conclusion as to whether the impact has been mitigated to below a level of significance. Detailed analysis of significant environmental effects that cannot be avoided if the Proposed Project is implemented are discussed in Chapter 2, significant environmental effects that can be mitigated are found in Chapter 3; and effects found not be significant during preparation of the Environmental Impact Report (EIR) or the initial study process are found in Chapter 4.

Environmental design considerations that have been incorporated into the Proposed Project are listed in Table 1-5. These include standard measures to reduce environmental impacts associated with air quality, erosion, and water quality during grading and construction of the Proposed Project. Additional measures specifically related to the Proposed Project to address impacts associated with transportation, aesthetics, agriculture, biological resources, geology, and hazards are also included. All of these environmental design measures are detailed in Chapters 2, 3, and 4 and are also included in Chapter 8 of this EIR.

S.3 Areas of Controversy

The Notice of Preparation (NOP) was distributed in April 2004 for a 30-day public review and comment period. In addition, a public scoping meeting was held in April 2004 at the County of San Diego Department of Planning and Land Use. The NOP and all of the comment letters received are included in this EIR as Appendix B. The issues that were

raised in the comments and forms by the public agencies, local groups, and individuals are evaluated in the Draft EIR in Chapters 2 through 5.

Issues of concern associated with the Proposed Project include the change in aesthetics and community character; land use intensity relative to the adopted County General Plan, the proposed General Plan Update, and the Fallbrook Community Plan; transportation/traffic, and the provision of water and sewer service to the Project Site.

S.4 Issues to be Resolved by the Decision-Making Body

Issues to be resolved include whether or how to mitigate the significant effects that would be created by the implementation of the Proposed Project. The County of San Diego Board of Supervisors will decide if the significant and unmitigated effects associated with aesthetics, air quality, and traffic can be reduced, whether feasible mitigation is available, and whether overriding considerations should be adopted. Additionally, the Board of Supervisors will determine whether the significant impacts associated with the environmental issues of biology, cultural resources, noise, geology, and hazards have been fully mitigated to below a level of significance. The Board of Supervisors will also decide whether the Proposed Project conforms with the criteria set out in land use regulations and policies, including the Fallbrook Community Plan, and take into consideration the premise for the General Plan Update plan design. Lastly, the Board of Supervisors will decide whether any of the project alternatives substantially reduces significant impacts while still meeting the key project objectives.

S.5 Project Alternatives

A number of alternatives were considered during preparation of this EIR, including the following alternatives to the Proposed Project:

- No Project (No Development) Alternative
- No Project (Development Consistent with the Adopted General Plan) Alternative
- Groundwater Dependent (Consistent with the Groundwater Ordinance) Alternative
- Reduced Grading Alternative
- Proposed General Plan Update Draft Land Use Map Alternative (Development Consistent with the San Diego County General Plan Update)
- Proposed General Plan Update Referral Map Alternative (Development Consistent with the San Diego County General Plan Update)

In addition, following the discovery of human remains in late January 2011, three additional alternatives were examined to consider the possible realignment and/or reconfiguration of Horse Ranch Creek Road. The discussion of these alternatives is provided to further California Environmental Quality Act (CEQA) goals of public disclosure, although these alternatives are not required in order to reduce significant impacts associated with the remains, as those impacts can be mitigated consistent with the CEQA Guidelines by preservation in place, as discussed below. These three additional alternatives include the following:

1. Raised Elevation of Horse Ranch Creek Road Alternative
2. Western Alignment of Horse Ranch Creek Road Alternative
3. Reconfigured Alignment of Horse Ranch Creek Road Alternative

A summary of the conclusions is provided below with the full analysis found in Chapter 5 of the EIR.

Analysis of the No Project (No Development) Alternative (Subchapter 5.2)

In accordance with the CEQA Guidelines Section 15126.6(e), the No Project Alternative includes a discussion of the existing conditions at the time the NOP is published and no development would occur (Alternative 1) or a discussion of a circumstance in which the Proposed Project does not proceed, but taking into account what would be reasonably expected to occur in the foreseeable future (Alternative 2). The EIR considers both scenarios.

Under the No Project (No Development) Alternative, the Project Site would remain as it is today, consisting primarily of agricultural uses. The No Project (No Development) Alternative is environmentally superior to the Proposed Project because it would avoid significant unmitigated impacts related to aesthetics, air quality, and transportation/traffic, as well as reduce significant and mitigated impacts associated with biological and agricultural resources, geology and soils, cultural resources, noise, and hazards/hazardous materials for the Proposed Project. This alternative would not develop housing nor meet any of the Proposed Project's objectives.

Analysis of the No Project (Development Consistent with the Adopted General Plan) Alternative (Subchapter 5.3)

The No Project (Development Consistent with the Adopted General Plan) Alternative applies the two existing General Plan Designations, (18) Multiple Rural Use and (21) Specific Plan Area, with an overall density of 2.75 du/ac. There are 297.5 acres in the (18) Multiple Rural Use area, which requires a minimum lot size of 4, 8, or 20 acres, depending on slope. The (18) Multiple Rural Use area would yield approximately 33 dwelling units on 4-, 8-, or 20-acre lots. There are 92 acres in the (21) Specific Plan Area portion of the Project Site, which would yield approximately 229 single-family dwelling units on 10,000-square-foot and half-acre lots. Therefore, the No Project (Development Consistent with the Adopted General Plan) Alternative would produce approximately 262 single-family dwelling units.

The No Project (Development Consistent with the Adopted General Plan) Alternative would result in reducing significant and unmitigated air quality impacts to a level which would be mitigated. Significant unmitigated aesthetics and transportation/traffic would remain. Impacts related to biological resources and agricultural resources would be greater. Significant and mitigated impacts anticipated are associated with geology and soils, cultural resources, noise, and hazards/hazardous materials would be similar to the Proposed Project. This alternative would not attain the following five of the ten project objectives. This alternative would not provide a variety of housing types (Objectives 1), preserve biological and visual resources (Objective 3), preserve ongoing agriculture (Objective 5), provide educational and recreational opportunities (Objective 6), or provide permanent preservation of natural open spaces (Objective 8).

Analysis of the Groundwater Dependent (Consistent with the Groundwater Ordinance) Alternative (Subchapter 5.4)

The Groundwater Dependent (Consistent with the Groundwater Ordinance) Alternative relies on groundwater to sustain development consistent with the San Diego County Groundwater Ordinance. Under this alternative, the Groundwater Ordinance would restrict lot sizes based on annual average rainfall. The ordinance would require a minimum lot size of eight acres. Therefore, 46 eight-acre single-family lots could be accommodated on the site and would be dependent on private wells and on-site septic systems instead of sanitary sewer and water.

The Groundwater Dependent (Development Consistent with the Groundwater Ordinance) Alternative would yield 46 residences, most likely dependent on private wells and on-site septic systems instead of sanitary sewer and water. An elementary school site and park would not be provided under this alternative. This alternative would avoid significant unmitigated impacts related to aesthetics, air quality, and transportation/traffic, as well as reduce significant and mitigated impacts associated with, geology and soils, cultural resources, noise, and hazards/hazardous materials for the Proposed Project. Impacts related to biological resources and agricultural resources would be greater as there would be no provision for dedication of open space easements.

This alternative would not attain the following eight of the ten project objectives. This alternative would not provide a variety of housing types (Objective 1), provide a great increase in housing supply (Objective 2); preserve biological and visual resources (Objective 3); preserve ongoing agriculture (Objective 5); provide educational and recreational opportunities (Objective 6), and provide permanent preservation of natural open spaces (Objective 8). This alternative will not require a LAFCO SOI determination or selection of MWD to serve the Project Site (Objectives 9 and 10).

Analysis of the Reduced Grading Alternative (Subchapter 5.5)

The rationale for the selection of a Reduced Grading Alternative is to minimize alteration of the topography and maximize the preservation of biological and agricultural resources. The Reduced Grading Alternative would entail clustering development on the area of the Project Site with less than 15 percent slope gradient with all remaining land (approximately 300 acres) preserved as open space. Such development is likely to include three-story multi-family buildings, with possible underground parking. The remaining 38.5-acre area would be utilized as a combined park and elementary school. The Reduced Grading Alternative would yield 1,138 multi-family residential units, an increase of 241 units. This alternative would result in reducing the Proposed Project's significant and mitigated impacts related to biological resources and agricultural resources. It would result in similar significant and unmitigated impacts to aesthetics, air quality, and transportation/traffic, and to significant and mitigated impacts to geology and soils, cultural resources, noise, and hazards/hazardous materials.

This alternative would attain all but two project objectives. It would not meet the objective of providing a variety of housing because it would only offer a multi-family option (Objective 1). It would also not provide an opportunity for increasing a variety of housing (Objective 2).

Analysis of the Proposed General Plan Update Draft Land Use Map (Development Consistent with the San Diego County General Plan Update) Alternative (Subchapter 5.6)

The General Plan Update Draft Land Use Map Alternative would allow the construction of a community consisting of 1,168 single- and multi-family units and 1.8 acres of neighborhood commercial.

Due to the fact that the development footprint would be the same as the Proposed Project, impacts associated with aesthetics (significant and unmitigable), and impacts to biological resources, agricultural resources, and cultural resources, geology and soils and hazards/hazardous materials (significant and mitigated) would be similar to the Proposed Project. Due to the increase in the number of units and addition of neighborhood commercial use, this alternative would have greater impacts associated with air quality, transportation/traffic and noise. Significant unmitigated impacts associated with the Proposed Project would remain. This alternative would attain all of the project objectives.

Analysis of the Proposed General Plan Update Referral Map (Development Consistent with the San Diego County General Plan Update Referral Map) Alternative (Subchapter 5.7)

The General Plan Update Referral Map Alternative would allow the construction of a community with a 1.8-acre neighborhood commercial center and single and multi-family residences totaling 536 dwelling units.

Due to the fact that the development footprint would be the same as the Proposed Project, impacts associated with significant and unmitigated aesthetics, and impacts to significant and mitigated biological resources, agricultural resources, and cultural resources would be similar to the Proposed Project. This alternative would also result in similar impacts associated with geology and soils and hazards/hazardous materials (significant and mitigated). Given the reduction in the number of traffic trips, this alternative would have less impact associated with air quality and transportation/traffic, although they would remain significant and unmitigated. With the addition of the neighborhood commercial use, this alternative would have greater impacts associated with noise.

This alternative would attain all of the project objectives. However, Objectives 1 (variety of residential land uses) and 2 (increasing housing supply) would not be reached at the same level as the Proposed Project.

Analysis of the Raised Elevation of Horse Ranch Creek Road Alternative (Subchapter 5.8.1)

The Raised Elevation of Horse Ranch Creek Road Alternative would be conditioned to elevate the profile of Horse Ranch Creek Road by roughly two to six feet over the area of concern associated with the discovery of human remains in order to reduce the need for further excavation. Due to the fact that all other aspects of the Proposed Project would remain the same, environmental impacts would be similar for the issues of aesthetics, air quality, traffic/transportation, biology, geology and soils, noise, and hazards.

This alternative could reduce less than significant impacts to Cultural Resources so long as the raising of the roadway's elevation would not encroach into on-site Loci in proximity to the roadway due to increased slopes along Horse Ranch Creek Road. This alternative would attain all of the project objectives.

Analysis of the Western Alignment for Horse Ranch Creek Road Alternative (Subchapter 5.8.2)

The Western Alignment for Horse Ranch Creek Road Alternative would realign Horse Ranch Creek Road approximately 450 feet west of the currently proposed alignment in order to avoid additional excavation in proximity to the discovered human remains. Under this alternative the number of multi-family units in Planning Area 1 would be reduced by approximately 140 units, from 164 units to approximately 24 units, and it would reduce the total number of housing units in the project from 844 units to approximately 704 units. Additionally, the WWTP would be located along SR-76 slightly to the east of the currently proposed location.

This alternative would not reduce any significant impacts associated with the Proposed Project. Environmental impacts would be similar for the issues of aesthetics, air quality, biology, geology and soils, cultural resources, noise and hazards. Impacts to traffic/transportation, specifically related to safety, would be increased over the Proposed Project due to conflicts with Caltrans standard specification requirements associated with the placement of Horse Ranch Creek Road. The Western Alignment Alternative would meet most of the Proposed Project objectives; however, the removal of the multi-family homes currently located in the southern portion of the Proposed Project would result in the project's inability to meet objectives relating to providing a variety of housing types (Objectives 1 and 2).

Analysis of the Reconfigured Alignment of Horse Ranch Creek Road Alternative (Subchapter 5.8.3)

The Reconfigured Alignment of Horse Ranch Creek Road Alternative would eliminate the southern segment of Horse Ranch Creek Road (from Pankey Place south to SR-76). The elimination of Horse Ranch Creek Road at this location would also remove access to the WWTP as currently proposed. Access to the WWTP would be provided either via entrance from SR- 76 or via connection to an existing private road to the east. In order to accommodate the reconfigured roadways and access to the WWTP, the proposed 164 multi-family units would not be developed within Planning Area 1, reducing the total housing provided by the project from 844 units to 680 units.

This alternative would increase the utilization of the existing Pankey Road/SR-76 intersection. As indicated by Caltrans, this alternative would require the following road improvements to accommodate the traffic flow: dual left-turn lanes for eastbound to northbound traffic at Pankey Road/SR-76; six lanes of through traffic from I-15 east through the Pankey Road/SR-76 intersection; and the widening of the SR-76 over-crossing Horse Ranch Creek Road. Additionally, Pankey Place would be widened from a two-lane road to a Major 4-lane road (as defined by the County) to accommodate the additional traffic. The Reconfigured Alignment Road Alternative would result in similar impacts for the issues of aesthetics, air quality, geology and soils, cultural resources, noise, and hazards. Due to the reduction in land uses, air quality impacts would be reduced due to reduced emissions; however, Traffic/Transportation impacts would be increased. Project and cumulative traffic would be directed to one intersection along SR-76 and likely cause the segments and intersections to operate at failing levels. Biological impacts would also be increased due to road improvements and increased traffic.

The Reconfigured Alignment Alternative would meet the majority of the Proposed Project's objectives. The removal of the multi-family homes currently located in the southern portion of the Proposed Project would result in the project's inability to meet objectives relating to providing a variety of housing types (Objectives 1 and 2) and preserve sensitive habitat (Objective 3).

Environmentally Superior Alternative

Although the No Project (No Development) Alternative and the No Project (Adopted General Plan) Alternative would result in minimal or substantially reduced environmental impacts, Section 15126.6(e)(2) of the State CEQA Guidelines requires identification of an alternative other than the No Project Alternative as the environmentally superior alternative. As such, the Reduced Grading Alternative would be considered the environmentally superior alternative due to its potential for maximizing retention of the natural landform and steep hillsides and preservation of biological and agricultural resources.

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TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
2.1 Aesthetics	A-1. Visible construction activities would significantly contrast with the existing visual environment due to removal of existing vegetation and the introduction of new, visually dominant elements such as newly cut or fill slopes, construction fencing, construction equipment, and construction materials stockpiling and storage.	M-A-1. Direct impacts resulting from short-term construction would remain significant. There is no feasible mitigation available to lessen these short-term effects.	Significant and unmitigable
	A-2. The cumulative introduction (Campus Park, Campus Park West, Palomar College, Pala Mesa Highlands, along with the Proposed Project) of a large number of buildings and suburban elements into areas that are currently undeveloped or used for agriculture would create a major change in the existing visual character of the viewshed.	M-A-2. Design measures have been incorporated into the Proposed Project that would reduce direct impacts to existing visual character and quality. However, there is no feasible mitigation available to lessen the cumulative effects.	Significant and unmitigable
	A-3. Some or all of the four nearby projects, Campus Park, Campus Park West, Palomar College, Pala Mesa Highlands, along with the Proposed Project, would be visible from the proposed San Luis Rey River Trail, the Engle Family Preserve, and Monserate Mountain Trail. The proposed cumulative projects would create a major change to the views from the surrounding areas and trails.	M-A-3. Design measures have been incorporated into the Proposed Project that would reduce direct impacts to existing visual character and quality. However, there is no feasible mitigation available to lessen the cumulative effects.	Significant and unmitigable

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
2.2 Air Quality	AQ-1. Densities included in the Proposed Project are not consistent with the existing, adopted San Diego County General Plan and the Fallbrook CP, and were not considered in the development of the Regional Air Quality Strategy (RAQS) for the San Diego Air Basin (SDAB).	M-AQ-1. The Proposed Project is not considered in SANDAG growth projects and thus is not consistent with the existing RAQS and the SIP. Until SANDAG updates the RAQS and SIP, there is no feasible mitigation available to reduce this impact.	Significant and unmitigable
	AQ-2. The Proposed Project has the potential to result in emissions of volatile organic compounds (VOC) during the architectural coating (painting) phase of construction which exceeds thresholds.	M-AQ-2. During the architectural coatings (painting) phase of construction, the applicant shall use interior coatings with a VOC content less than or equal to 50 grams per liter; residential exterior coatings with a content less than or equal to 100 grams per liter; and non-residential exterior and interior coatings with a content less than or equal to 250 grams per liter.	Less than significant
	AQ-3. On-site operational and source emissions of reactive organic gas (ROG) and particulates (PM_{10}) will continue to violate air quality standards.	M-AQ-3. The Proposed Project design would promote walking, bicycle riding, and horseback riding as alternative forms of transportation to motorized vehicles and would reduce the projected operational emissions. However, this will not completely reduce emissions to a level below significance. No additional feasible mitigation is available, thus impacts would remain significant and unmitigatable.	Significant and unmitigable
	AQ-4. Health risks associated with construction-related activities due to emissions form diesel equipment would be significant.	M-AQ-4. To utilize Toxic-Best Available Control Technology (T-BACT) and mitigate for impacts, the applicant shall ensure that 10 percent of the construction fleet uses any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters and/or CARB certified Tier I, II, or III equipment.	Less than significant
	AQ-5. The Proposed Project, together with other projects in the area would result in growth not represented in SANDAG growth forecasts nor included in the current RAQS or SIP, thus representing a significant impact.	M-AQ-5. Until SANDAG updates the RAQS and SIP, there is no feasible mitigation available to reduce this impact, thus impacts would be significant and unmitigable.	Significant and unmitigable

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
2.2 Air Quality (cont.)	AQ-6. Construction of the Proposed Project, together with other projects would result in emissions of diesel-fired particulate matter and result in a significant cumulative impact.	M-AQ-6. To ensure the use of T-BACT and mitigate for impacts, the applicant shall have 10 percent of the construction fleet use any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters and/or CARB certified Tier I, II, or III equipment.	Less than significant
	AQ-7. Implementation of the Proposed Project, along with other projects will result in the violation of air quality standards related to PM_{10} and ROG and creating a significant cumulative impact..	M-AQ-7. There is no feasible mitigation available to reduce this impact, thus impacts would be significant and unmitigable.	Significant and unmitigable
2.3 Transportation & Traffic	TR-1. The Proposed Project is calculated to have direct impacts at the intersection of Old Highway 395/ Reche Road	M-TR-1. The applicant shall install a traffic signal at the intersection of Old Highway 395 and Reche Road to the satisfaction of the Director of DPW.	Less than significant
	TR-2. The Proposed Project is calculated to have direct impacts at the following street segments: SR-76 from Via Monserate to Gird Road SR-76 from I-15 SB Ramp to I-15 NB Ramp	M-TR-2. Direct impacts to study area street/State Route segments shall be mitigated through the construction of one additional travel lane in each direction. The Caltrans SR-76 project proposes the widening of SR-76 from Via Monserate to Gird Road and SR-76 from the I-15 SB ramp to I-15 the NB ramp. Should the Caltrans project not be completed prior to the Proposed Project, the applicant shall make a fair share contribution to be allocated to the widening of SR-76, if feasible.	If the first residential unit within the Proposed Project is occupied prior to completion of the Caltrans SR-76 Middle project or SR-76 East project, impacts could remain significant and unmitigable

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
2.3 Transportation & Traffic (cont.)	TR-3. The Proposed Project is calculated to have cumulative impacts at the following intersections: SR-76 (Pala Rd) / Via Monserate SR-76 (Pala Rd) / Gird Road SR-76 (Pala Rd) / Sage Road SR-76 (Pala Rd) / Old Highway 395 SR-76 (Pala Rd) / I-15 SB Ramp SR-76 (Pala Rd) / I-15 NB Ramp SR-76 (Pala Rd) / Pankey Road SR-76 (Pala Rd) / Rice Canyon Road SR-76 (Pala Rd) / Couser Canyon Road Old Highway 395 / Pala Mesa Drive Old Highway 395 / Stewart Canyon Road Old Highway 395 / Reche Road Mission Road / Old Highway 395 Mission Road / I-15 Southbound Ramp Mission Road / I-15 Northbound Ramp SR-76 (Mission Ave) / E Vista Way SR-76 (Mission Ave) / North River Road SR-76 (Mission Ave) / Olive Hill Road SR-76 (Mission Ave) / S. Mission Road	M-TR-3. Cumulative impacts to study area intersections shall be mitigated through applicant participation in the TIF program.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
2.3 Transportation & Traffic (cont.)	TR-4. The Proposed Project is calculated to have cumulative impacts to the following street segments: Old Highway 395 from E. Mission Rd to Reche Rd Old Highway 395 from Reche Rd to Stewart Canyon Rd Old Highway 395 from Pala Mesa Dr to SR-76 SR-76 from E Vista Way to North River Road SR-76 from North River Road to Olive Hill Road SR-76 from Olive Hill Road to S Mission Road SR-76 from S Mission Road to Via Monserate SR-76 from Via Monserate to Gird Road SR-76 from Gird Road to Sage Road SR-76 from Sage Road to Old Highway 395 SR-76 from I-15 SB Ramp to I-15 NB Ramp SR-76 from Horse Ranch Creek Road to Rice Canyon Road SR-76 from Rice Canyon Road to Couser Canyon Road SR-76 from Couser Canyon Road to Pala Mission Road	M-TR-4. Cumulative impacts to study area street/State Route segments shall be mitigated through applicant participation in the TIF program.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.1 Biological Resources	BR-1. Construction activities in the vicinity of arroyo toads and their habitat may result in indirect impacts caused by increased nighttime lighting, erosion, and debris or construction equipment in the preserved habitat.	M-BR-1. To mitigate indirect construction-related impacts on the arroyo toad, the owner/permittee shall, using a qualified biologist, implement the following mitigation measure(s): a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area and identify locations for placement of protective fencing. The project biologist shall continue to monitor grading activities. b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downs lope side of disturbed areas, to prevent soil loss. c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist. d. A storm drain system and detention basins shall be constructed to restrict excess water flow from proposed roads and structures associated with the Meadowood project. Filter devices shall be installed at the appropriate points to ensure that run-off is cleansed before reaching the basins. All water-catchment features shall be located above graded and natural slopes. e. Nighttime lighting shall be shielded and directed away from riparian and upland habitat adjacent to the development.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.1 Biological Resources (cont.)	BR-2. The Proposed Project would remove a total of 14.5 acres of gnatcatcher habitat, including 13.5 acres of Designated Critical Habitat and 1.0 acres of gnatcatcher habitat are outside the Critical Habitat boundaries.	M-BR-2. Permanent direct impacts to a total of 14.5 acres on- and off-site, of suitable habitat for California gnatcatcher shall be mitigated on-site at a ratio of 2:1 for a total of 29.0 acres. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to gnatcatcher habitat by 0.7 acres and mitigation by 1.4 acres, for a total mitigation requirement of 27.6 acres. A total of 74.5 acres of habitat shall be preserved in the proposed on-site open space easement. The mitigation land shall also cover impacts to designated Critical Habitat for the California gnatcatcher as detailed in the Conceptual Resource Management Plan (Appendix F-3). Temporary direct impacts to a total of 0.3 acre on- and off-site shall be mitigated through revegetation of the coastal sage scrub with the same species present within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan. Take authorization of the California gnatcatcher and removal of coastal sage scrub habitat shall be obtained through the Section 7 Consultation with the USFWS or through the County Habitat Loss Permit Ordinance and compliance with the Coastal Sage Scrub NCCP.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.1 Biological Resources (cont.)	BR-3a. Construction activities in the vicinity of California gnatcatchers and their habitat may result in indirect impacts caused by increased noise, increased nighttime lighting, erosion, and debris or construction equipment in the preserved habitat.	M-BR-3a. Indirect impacts on the California gnatcatcher shall be mitigated by the following measures to be implemented by the project applicant: a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area. b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downslope side of disturbed areas, to prevent soil loss. c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist. d. Nighttime lighting shall be shielded and directed away from coastal sage scrub habitat adjacent to the development. This shall be implemented through a Lighting Plan. e. Permanent fencing and signage shall be placed along the trails and/or between the development open space interface in compliance with County standards and as shown on the Landscape Concept Plans.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.1 Biological Resources (cont.)	BR-3b. Construction and operation of the Proposed Project would result in significant direct impacts to the California gnatcatcher.	M-BR-3b. Direct impacts on the California gnatcatcher shall be mitigated by the following measures to be implemented by the project applicant: a. Direct impacts to California gnatcatcher shall be mitigated in accordance with M-BR-2. b. A qualified biologist shall supervise the placement of orange construction fencing or equivalent along the boundary of the development area as shown on the approved grading plans. The location and design for fencing shall be recommended and subsequently installed by a qualified biologist. c. To avoid impacts to nesting gnatcatchers, vegetation clearing and grubbing within 500 feet of coastal sage scrub shall no occur in potential nesting habitat during the breeding season from February 15 through August 31. If project construction (other than clearing and grubbing of sensitive habitats) is necessary adjacent to preserved on- and off-site habitat during the gnatcatcher breeding (or sooner if a Wildlife Agency-approved biologist demonstrates to the satisfaction of the Wildlife Agencies that all nesting is complete), a Wildlife Agency-approved biologist shall conduct pre-construction surveys in the adjacent habitat to determine the location of any active gnatcatcher nests in the area. The survey shall begin not more than three days prior to the beginning of construction activities. The Agencies shall be notified if any nesting gnatcatcher is found. During construction, no activity shall occur within 500 ft (152.4 m) of active gnatcatcher nesting territories, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. Exceptions to this measure includes cases where surveys confirm that adjacent habitat is not occupied or where noise studies confirm that construction noise levels are below 60 dBA hourly Leq along the edge of adjacent habitat. If construction activities are not completed prior to the breeding season and noise levels exceed this threshold, noise barriers shall be erected to reduce noise impacts to occupied habitat to below 60 dBA hourly Leq and/or the culpable activities will be suspended.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.1 Biological Resources (cont.)	BR-4. The Proposed Project would result in significant permanent direct impacts resulting from off-site improvement areas would remove approximately 3.7 acres of occupied least Bell's vireo habitat (southern willow scrub and southern arroyo willow riparian forest) and temporary impacts to 2.2 acres.	M-BR-4. Impacts to least Bell's vireo habitat shall be mitigated at a ratio of 3:1 for a total of 11.1 acres to be purchased off-site. This mitigation shall be incorporated into the Section 7 consultation. The habitat shall be a southern willow scrub or willow riparian forest habitat which can be occupied by least Bell's vireo as detailed in the Conceptual Wetlands Mitigation Plan. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to vireo habitat by 0.7 acres and mitigation by 2.1 acres for a total mitigation requirement of 9.1 acres. This mitigation shall be incorporated into the Section 7 consultation. Temporary direct impacts to 2.2 acres shall be mitigated through revegetation of the riparian habitat with the same species present within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.1 Biological Resources (cont.)	BR-5a. Construction activities in the vicinity of least Bell's vireo and their habitat may result in indirect impacts caused by increased noise, increased nighttime lighting, erosion, and debris or construction equipment in the preserved habitat.	M-BR-5a. Indirect impacts to least Bell's vireo shall be mitigated by the following measures to be implemented by the project applicant: a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area. b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downslope side of disturbed areas, to prevent soil loss. c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist. d. Nighttime lighting shall be shielded and directed away from riparian habitat adjacent to the development. This shall be implemented through a Lighting Plan.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.1 Biological Resources (cont.)	BR-5b. Construction and operation of the Proposed Project would result in significant direct impacts to the least Bell's vireo.	M-BR-5b. Direct impacts to least Bell's vireo shall be mitigated by the following measures to be implemented by the project applicant: a. Direct impacts to least Bell's vireo habitat shall be mitigated in accordance with M-BR-4 b. A qualified biologist shall supervise the placement of orange construction fencing or equivalent along the boundary of the development area as shown on the approved grading plans. The location and design for fencing shall be recommended and subsequently installed by a qualified biologist. c. To avoid impacts to nesting vireos, vegetation clearing and grubbing shall not occur within 500 feet of riparian habitat during the breeding season from March 15 to September 15. If project construction (other than clearing and grubbing of sensitive habitats) is necessary adjacent to preserved on- and off-site habitat during the vireo breeding (or sooner if a Wildlife Agency-approved biologist demonstrates to the satisfaction of the Wildlife Agencies that all nesting is complete), a Wildlife Agency-approved biologist shall conduct pre-construction surveys in the adjacent habitat to determine the location of any active vireo nests in the area. The survey shall begin not more than three days prior to the beginning of construction activities. The Agencies shall be notified if any nesting vireos are found. During construction, no activity shall occur within 500 ft (152.4 m) of active vireo nesting territories, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. Exceptions to this measure includes cases where surveys confirm that adjacent habitat is not occupied or where noise studies confirm that construction noise levels are below 60 dBA hourly Leq along the edge of adjacent habitat. If construction activities are not completed prior to the breeding season and noise levels exceed this threshold, noise barriers shall be erected to reduce noise impacts to occupied habitat to below 60 dBA hourly Leq and/or the culpable activities will be suspended.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.1 Biological Resources (cont.)	BR-6. The permanent removal of 3.7 acres of suitable habitat and temporary impacts to 2.20 acres of suitable habitat for southwestern willow flycatcher would be considered a significant impact.	M-BR-6. Impacts to southwestern willow flycatcher habitat shall be mitigated at a ratio of 3:1 for a total of 11.1 acres to be purchased off-site as detailed in the Conceptual Wetland Mitigation Plan (Appendix F-4). If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to southwestern willow flycatcher habitat by 0.7 acres and mitigation by 2.1 acres, for a total mitigation requirement of 9.1 acres. This mitigation shall be incorporated into the Section 7 consultation. Temporary direct impacts to 2.2 acres of suitable habitat shall be mitigated through revegetation of the riparian habitat with the same species present within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.1 Biological Resources (cont.)	BR-7a. Construction activities in the vicinity of least southwestern willow flycatcher and their habitat may result in indirect impacts caused by increased noise, increased nighttime lighting, erosion, and debris or construction equipment in the preserved habitat.	M-BR-7a. Indirect impacts on the southwestern willow flycatcher shall be mitigated by the following measures to be implemented by the project applicant: a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area. b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downslope side of disturbed areas, to prevent soil loss. c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist. d. Nighttime lighting shall be shielded and directed away from riparian habitat adjacent to the development. This shall be implemented through a Lighting Plan.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.1 Biological Resources (cont.)	BR-7b. Construction and operation of the Proposed Project would result in significant direct impacts to the southwestern willow flycatcher.	BR-7b. Direct impacts on the southwestern willow flycatcher shall be mitigated by the following measures to be implemented by the project applicant: a. Direct impacts to southwestern willow flycatcher habitat shall be mitigated in accordance with M-BR-6. b. A qualified biologist shall supervise the placement of orange construction fencing or equivalent along the boundary of the development area as shown on the approved grading plans. The location and design for fencing shall be recommended and subsequently installed by a qualified biologist. c. To avoid impacts to nesting southern willow flycatchers, vegetation clearing and grubbing within 500 feet of riparian habitat shall not occur from May 1 to September 1. If project construction (other than clearing and grubbing of sensitive habitats) is necessary adjacent to preserved on- and off-site habitat during the flycatcher breeding (or sooner if a Wildlife Agency-approved biologist demonstrates to the satisfaction of the Wildlife Agencies that all nesting is complete), a Wildlife Agency-approved biologist shall conduct pre-construction surveys in the adjacent habitat to determine the location of any active flycatcher nests in the area. The survey shall begin not more than three days prior to the beginning of construction activities. The Agencies shall be notified if any nesting flycatchers are found. During construction, no activity shall occur within 500 ft (152.4 m) of active flycatcher nesting territories, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. Exceptions to this measure includes cases where surveys confirm that adjacent habitat is not occupied or where noise studies confirm that construction noise levels are below 60 dBA hourly Leq along the edge of adjacent habitat. If construction activities are not completed prior to the breeding season and noise levels exceed this threshold, noise barriers shall be erected to reduce noise impacts to occupied habitat to below 60 dBA hourly Leq and/or the culpable activities will be suspended.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.1 Biological Resources (cont.)	BR-8. Development of the Proposed Project will permanently (direct and indirect) impact foraging habitat on- and off-site. These impacts include 14.5 acres of coastal sage scrub, 2.2 acres of southern mixed chaparral, 30.2 acres of pasture and 15.3 acres of non-native grassland for a total of 62.2 acres of habitat. Temporary impacts include 0.3 acre coastal sage scrub, 0.2 acre of southern mixed chaparral, and 5.0 acres of pasture and non-native grassland for a total of 5.5 acres of habitat..	M-BR-8. Permanent direct impacts to 62.2 acres of foraging habitat for birds of prey and other special status species shall be mitigated through preservation of 122.4 acres of open space on-site within a regional open space network as detailed in the Conceptual Resource Management Plan (Appendix F-3). Temporary impacts would be mitigated through revegetation of foraging habitat with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan. Indirect impacts shall be mitigated by the following measures: a. Shielding lighting away from the open space. b. Monitoring noise levels during construction. c. Use of range construction fencing, and silt fencing. d. Permanent fencing and signage shall be placed along the trails and/or between the development open space interface in order to be compliant with County standards and as shown on the Landscape Concept Plans.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.1 Biological Resources (cont.)	BR-9. The Proposed Project could result in impacts to marginal, yet occupied habitat for the western spadefoot.	M-BR-9. Impacts to the western spadefoot shall be mitigated by the purchase of 11.1 acres of riparian forest and scrub habitat and the 122.4 acres of open space on-site within a regional open space network as detailed in the Conceptual Resource Management Plan (Appendix F-3). If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to western spadefoot habitat by 0.7 acre and mitigation by 2.1 acres, for a total mitigation requirement of 9.1 acres. Additionally, prior to grading, a written relocation plan shall be prepared and approved by the County and CDFG. In accordance with the plan, western spadefoot toads shall be trapped and relocated The timing and duration of the relocation program shall be based on the activity period of the western spadefoot (generally associated with rainfall and temperature) and proposed construction schedule. Trapping shall occur along the existing pitfall traps located along the western and southern property boundaries and monitored prior to and during proposed construction activities. Any western spadefoot found in the traps shall be collected, noted and relocated to predetermined receptor sites within the region. Trapping and relocation shall be conducted by a biologist familiar with the biological natural history of the western spadefoot and possesses a CDFG Memorandum of Understanding (MOU) for conducting these activities. At the end of the relocation effort, the biologist shall prepare a summary report noting the number of western spadefoot relocated, the location of the area to which they were moved, and other pertinent facts. The report shall be submitted to the County and CDFG.	Less than significant
	BR-10. Development of the Proposed Project will permanently and temporarily impact on- and off-site foraging habitat potentially supporting special status wildlife.	M-BR-10. Permanent and temporary impacts to the 14 special status wildlife species identified on-site shall be mitigated through preservation of 122.4 acres of open space on-site within a regional open space network as detailed in the Conceptual Resource Management Plan (Appendix F-3).	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.1 Biological Resources (cont.)	BR-11. The Proposed Project would impact habitat for a variety of native bird species including raptors and nests of species protected by the Migratory Bird Treaty Act.	M-BR-11. Impacts to nesting birds shall be mitigated through the following measures: a. Native and naturalized vegetation clearing shall not occur during the breeding season from February 15 to September 15; However, Project construction activities may occur within this period with written concurrence from the Director of the Department of Planning and Land Use (DPLU), the USFWS, and the CDFG that nesting birds would be avoided. If vegetation removal is to take place during the nesting season, a biologist shall be present during vegetation clearing operations to search for and flag active nests so that they can be avoided. b. To avoid impacts to nesting raptors, any vegetation clearing or grubbing within 500 feet of trees suitable for raptor nesting shall not occur from February 1 to July 15. However, Project construction activities may occur within this period with written concurrence from the Director of the Department of Planning and Land Use (DPLU), the USFWS, and the CDFG that nesting birds would be avoided. A County-approved biologist shall conduct pre-construction surveys in the adjacent habitat to determine the location of any active raptor nests in the area. The survey shall begin not more than ten days prior to the beginning of construction activities. During construction, no activity shall occur within 500 ft (152.4 m) of active raptor nests, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. The project proponent may seek approval from the Director of DPLU if nesting activities cease prior to July 15. c. Potential impacts to nesting California gnatcatcher, least Bell's vireo, and southern willow flycatcher will be implemented through agency permitting and with M-BR-3b(c), M-BR-5b(c), and M-BR-7b(c).	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.1 Biological Resources (cont.)	BR-12. External community lighting may have an effect on species near the edge of open space if it is allowed to shine into preserved areas.	M-BR-12. General indirect impacts associated with external community lighting shall be mitigated through the requirement that all communal lighting be shielded and directed away from the urban/natural edge. The Proposed Project shall be designed to be in compliance with the San Diego County Light Pollution Code (Sections 59.101-59.115). A lighting plan shall be included in the grading plans which shows required lighting adjacent to the open space as being shielded, unidirectional, low pressure sodium illumination (or similar), and directed away from preserve areas using appropriate placement and shields.	Less than significant
	BR-13. The Proposed Project would permanently remove approximately 12.6 acres on-site, and approximately 1.9 acres off-site, for a total of 14.5 acres of coastal sage scrub. Temporary impacts include 0.2 acre on-site and 0.1 acres off-site.	M-BR-13. Permanent impacts to coastal sage scrub and disturbed coast sage scrub shall be mitigated at the ratio of 2:1 totaling 29.0 acres within the 122.4 acre proposed on-site open space easement as detailed in the Conceptual Resource Management Plan (Appendix F-3). (Actual amount of coastal sage scrub preserved on-site is 74.5 acres). If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to disturbed coastal sage scrub by 0.7 acres and mitigation by 1.4 acres, for a total mitigation requirement of 27.6 acres. Temporary impacts shall be mitigated through revegetation with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.	Less than significant
	BR-14. The Proposed Project would remove approximately 2.2 acres of southern mixed chaparral vegetation on-site.	M-BR-14. Permanent impacts to southern mixed chaparral shall be mitigated at the ratio of 0.5:1 totaling 1.1 acres within the 122.4 acre proposed on-site open space easement as detailed in the Conceptual Resource Management Plan (Appendix F-3). (Actual amount of southern mixed chaparral preserved on-site is 17.5 acres).	Less than significant
	BR-15. The Proposed Project would remove approximately 0.1 acre on-site and approximately 0.2 acre off-site, for a total of 0.3 acre.	M-BR-15. Permanent impacts to coast live oak shall be mitigated at the ratio of 3:1 totaling 0.9 acres within the 122.4 acre proposed on-site open space easement as detailed in the Conceptual Resource Management Plan (Appendix F-3). (Actual amount of coast live oak woodland preserved on-site is 1.7 acres).	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.1 Biological Resources (cont.)	BR-16. The Proposed Project would remove approximately 9.9 acres of non-native grassland on-site and approximately 5.4 acres off-site for a total of 15. 3 acres. Temporary impacts include less than 0.1 acre onsite and 2.1 acres off-site.	M-BR-16. Permanent impacts to non-native grassland shall be mitigated at the ratio of 0.5:1 totaling 7.7 acres within the 122.4 acre proposed on-site open space easement as detailed in the Conceptual Resource Management Plan (Appendix F-3). (Actual amount of non-native grassland preserved on-site is 22.0 acres).	Less than significant
	BR-17. Proposed development would result in the removal of approximately 1.5 acres of pastureland on-site and 28.7 acres off-site for a total of 30.2 acres. Temporary impacts include 2.8 acres off-site.	M-BR-17. Permanent impacts to pastureland shall be mitigated at the ratio of 0.5:1 totaling 15.1 acres of non-native grassland. A portion of the mitigation shall be on-site within the proposed open space easement. An additional 2.7 acres of mitigation land is required and shall be preserved off-site as detailed in the Conceptual Resource Management Plan (Appendix F-3). If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to pastureland by 16.7 acres and mitigation by 8.3 acres, for a total mitigation requirement of 6.8 acres.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.1 Biological Resources (cont.)	BR-18. Proposed development would result in the removal of 0.1 acres of willow/mule fat scrub on-site and less than one acre southern willow scrub, 3.7 acres southern arroyo willow riparian forest, and 0.9 acre freshwater marsh off-site.	M-BR-18. Impacts willow/mule fat scrub, southern willow scrub, southern arroyo willow riparian forest, and freshwater marsh off-site shall be mitigated through dedication, restoration, creation and/or enhancement of wetlands at a ratio of 3:1 for a total of 12.3 acres or as defined through required state and federal wetland permits as detailed the Conceptual Wetland Mitigation Plan (Appendix F-4). The Conceptual Wetlands Mitigation Plan will be updated to account for the impacted Jurisdictional Vegetated Wetlands separately from the impacted Vegetation Communities Impacts. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to willow/mule fat scrub, southern willow scrub, southern arroyo willow riparian forest, and freshwater marsh by 1 acre and mitigation by 3 acres, for a total mitigation requirement of 9.3 acres. Temporary impacts shall be mitigated through revegetation with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.1 Biological Resources (cont.)	BR-19. Proposed development would result in the on- and off-site impacts to jurisdictional wetlands.	M-BR-19. Permanent impacts to jurisdictional wetlands shall follow the terms and conditions of permits and agreements with ACOE and CDFG. Permanent impacts shall be mitigated at a ratio of 3:1 and shall consist of purchase and dedication of replacement habitat, creation of wetlands, and revegetation of disturbed riparian habitat. Mitigation measures for impacts to ACOE jurisdictional wetlands, CDFG vegetated riparian habitat, and County wetlands are listed as follows: • ACOE jurisdiction: Permanent impacts to 0.83 acre on-site and 2.29 acres off-site, for a total of 3.12 acres of ACOE jurisdictional waters and wetlands shall be mitigated with 9.36 acres of ACOE jurisdictional waters and wetlands. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to ACOE jurisdiction by 0.11 acre and mitigation by 0.33 acres, for a total mitigation requirement of 9.25 acres. • CDFG jurisdiction: Permanent impacts to 0.93 acres on-site and 2.29 acres off-site, for a total of 3.22 acres of CDFG jurisdictional waters and vegetated riparian habitat shall be mitigated with 9.66 acres of CDFG jurisdictional waters and vegetated riparian habitat. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to CDFG jurisdiction by 0.11 acre and mitigation by 0.33 acres, for a total mitigation requirement of 9.25 acres. • RPO jurisdiction: Permanent impacts to 2.29 acres of RPO wetlands off-site shall be mitigated with 6.87 acres of RPO wetlands. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to RPO jurisdiction by 0.11 acre and mitigation by 0.33 acres, for a total mitigation requirement of 9.25 acres. The Conceptual Wetlands Mitigation Plan will be updated to account for the impacted Jurisdictional Vegetated Wetlands separately from the impacted Vegetation Communities Impacts.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.1 Biological Resources (cont.)	BR-20. Temporary impacts to jurisdictional wetlands on- and off-site totaling 2.04 acres.	M-BR-20. Temporary impacts to 2.04 acres of jurisdictional wetlands shall be mitigated through revegetation with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.	Less than significant
3.2 Geology and Soils	GE-1. Standard design measures would not completely eliminate the risks associated with liquefaction within the Project Site.	M-GE-1. The applicant shall raise the existing grade while also removing and re-compacting the alluvium above the groundwater table to increase the overburden pressure over the liquefiable deposits as recommended by the geotechnical engineer.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.2 Geology and Soils (cont.)	GE-2. The potential exists for rockfall from the west-facing slope of Rosemary's Mountain due to seismic or erosional events. The project design will incorporate features to reduce impacts from rockfall and soil instability, but these standard project design measures would not completely eliminate risks associated with rockfall.	M-GE-2. Mitigation of rockfall potential shall consist of the following: • The boulders identified as having a high potential of rockfall in the Response to County of San Diego Review Comments for Rockfall prepared by Geocon Incorporated dated March 31, 2011 shall be broken and removed from the slope, or alternatively rock bolted to the slope as part of the grading of the site. • Boulders identified as having a less than significant rockfall potential shall be tested by applying pressure with an excavator. If the boulders move they shall be mitigated using the same techniques described for boulders with high potential for rockfall. Boulders identified as having a less than significant rockfall potential shall be monitored during grading after any heavy rains if they should occur. If any undermining on the downhill side of any of the boulders has occurred, removal and/or breaking of the boulder(s) as recommended shall be performed to mitigate the rockfall hazard. • A letter of certification shall be provided by a California Registered Professional Engineer or Certified Engineering Geologist to the *[DPLU, PCC]*, which states that the identified rockfall hazards at the site have been mitigated to a level of less than significant and any proposed buildings are safe for human occupancy. • The above certification letter shall be provided prior to approval of any building plans and issuance of any building permit. The *[DPLU, PCC]* shall review the rockfall hazard certification report for compliance with this condition.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.3 Cultural Resources	CR-1. Project construction could impact significant subsurface deposits associated with the Monserate Adobe.	M-CR-1. A County approved archaeologist and a Luiseño Native American monitor shall monitor grading in the vicinity of the mapped location of the Monserate Adobe, as well as the area north of SR-76. A Monitoring Discovery Plan shall be prepared prior to commencement of construction activity, to be put in use in the event historic deposits are discovered. All historic artifacts recovered during all phases of survey, testing, and grading monitoring shall be curated according to current professional repository standards. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San Diego County that meets federal standards per 36 CFR Part 79, to be accompanied by payment of the fees necessary for permanent curation. All prehistoric artifacts recovered during all phases of survey, testing, and grading monitoring shall be curated with a Luiseño Native American Tribe. The collections and associated records shall be transferred to a Luiseño Native American Tribe within San Diego County. If human remains are encountered, all ground disturbance activities in the immediate vicinity of the discovery shall be halted and all requirements under Public Resources Code section 5097.98 and County Guidelines for Cultural Resources shall be followed.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.3 Cultural Resources (cont.)	CR-2. Cultural resources on the Project Site include archaeological site CA-SDI-682 which is identified as a CEQA and RPO significant resource. Loss of this site would be a significant impact.	M-CR-2a. To preserve the integrity of CA-SDI-682, the applicant shall cap Loci A and B per County of San Diego standards, landscaped as part of the overall development and placed in an open space easement. A Preservation Plan describing the methods and ultimate disposition of the capped site area has been prepared and is included as Appendix H, the Cultural Resources Report. The location of the conservation open space easement is shown in Figure 4 of the Preservation Plan. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, they will be responsible for mitigation associated with Locus B which entails capping, temporary fencing and open space easement dedication. M-CR-2b. For the protection of archaeological site CA-SDI-682, Loci A and Loci B, the applicant shall prepare and implement a temporary fencing plan during any grading activities within one hundred feet. The fencing plan shall be prepared in consultation with County approved archaeologist and a Luiseño Native American representative to the satisfaction of the Director of the Department of Planning and Land Use. The fenced area shall include a buffer sufficient to protect the archaeological site. The fence shall be installed under the supervision of the approved archaeologist prior to commencement of grading or brushing and be removed only after grading operations have been completed.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.3 Cultural Resources (cont.)	CR-3. Locus C of CA-SDI-682 consists of sparse, deeply buried deposits and it is possible that significant undetected, intact archaeological deposits exist below the ground surface.	M-CR-3. A County approved archaeologist and a Luiseño Native American representative shall monitor grading in the vicinity of Loci C, as well as the area north of existing SR-76. A Monitoring Discovery Plan shall be prepared prior to commencement of construction activity, to be put in use in the event archeological deposits are discovered. All artifacts recovered during all phases of survey, testing, and grading monitoring shall be curated with a Luiseño Native American Tribe~~according to current professional repository standards~~. The collections and associated records shall be transferred ~~including title,~~ to a Luiseño Native American Tribe ~~n appropriate curation facility~~ within San Diego County ~~that meets federal standards per 36 CFR Part 79, to be accompanied by payment of the fees necessary for permanent curation~~. If human remains are encountered, all ground disturbance activities in the immediate vicinity of the discovery shall be halted and all requirements under Public Resources Code section 5097.98 and County Guidelines for Cultural Resources shall be followed.	Less than significant
	CR-4. Due to the large number of cultural resources in the vicinity, there is a potential for buried deposits to be uncovered during grading within the off-site areas.	M-CR-4. A County approved archaeologist and a Luiseño Native American representative shall monitor grading and subsurface excavation in off-site areas. All artifacts recovered during all phases of survey, testing and grading monitoring shall be curated with a Luiseño Native American Tribe ~~according to current professional repository standards~~. The collections and associated records shall be transferred ~~including title~~ to a Luiseño Native American Tribe within San Diego County ~~to be accompanied by payment of the fees necessary for permanent curation.~~ If human remains are encountered, all ground disturbance activities in the immediate vicinity of the discovery shall be halted and all requirements under Public Resources Code section 5097.98 and County Guidelines for Cultural Resources shall be followed.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.3 Cultural Resources (cont.)	CR-5. Due to the large number of cultural resources in the vicinity, there is a potential for significant human remains to be uncovered during grading.	M-CR-5. A County approved archaeologist and a Luiseño Native American representative shall monitor grading and subsurface excavation in on- and off-site areas not covered by CR-1 and CR-3. All artifacts recovered during all phases of survey, testing, and grading monitoring shall be curated with a Luiseño Native American Tribe~~according to current professional repository standards~~. The collections and associated records shall be transferred ~~including title~~ to a Luiseño Native American Tribe ~~n appropriate curation facility~~ within San Diego County~~ that meets federal standards per 36 CFR Part 79, to be accompanied by payment of the fees necessary for permanent curation~~. If human remains are encountered, all ground disturbance activities in the immediate vicinity of the discovery shall be halted and all requirements under Public Resources Code section 5097.98 and County Guidelines for Cultural Resources shall be followed.	Less than significant
3.4 Noise	N-1. Exterior noise levels adjacent to the major roadways are projected to exceed the County's standard of 60 community noise equivalent level (CNEL) and result in a significant impact.	M-N-1. The Proposed Project shall construct noise attenuation barriers ranging from three to ten feet along the edge of the residential pads, as shown in Figures 3.4-4 and 3.4-7. Barriers shall be free of cracks and holes. The transmission loss through a barrier should be at least 10 decibels greater than the estimated barrier attenuation (Federal Highway Administration 1979:34). If a barrier attenuates noise levels by 10 decibels at a receiver location, the barrier transmission loss must be at least 20 decibels to prevent audible noise from traveling through the barrier and adding to the acoustical environment. Examples of acceptable barrier materials include, but are not limited to, masonry block, wood frame with stucco, 0.5-inch-thick Plexiglas, or 0.25-inch-thick plate glass. If transparent barrier materials are used, no gaps shall occur between the panels. Figure 3.4-6 shows the barriers that would be required if the Campus Park project was constructed before the Proposed Project. As shown in Figure 3.4-6 several noise barriers at the southwest portion of Planning Area 1 as shown on Figure 3.4-4 would not be required with development of the Campus Park project.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.4 Noise (cont.)	N-2. Second-floor exterior noise levels in the multi-family units are projected to exceed 60 dB(A) CNEL. Therefore, interior noise levels may exceed the 45 CNEL standard.	M-N-2. A noise protection easement shall be placed on those lots where exterior noise levels exceed 60 CNEL to assure that at such time as architectural plans are available, and prior to the issuance of building permits, an interior acoustical analysis shall be conducted in accordance with the State Building Code and County standards. If interior allowable noise levels are met by requiring that windows be unopenable or closed, the design for the structure must also specify a ventilation or air-conditioning system to provide a habitable interior environment, as stated in the State Building Code. For exterior balconies, the acoustical analysis will determine the height and make up of acoustical barriers, also in accordance with State Building Code and County standards.	Less than significant
	N-3. Noise level at the residences directly north of the WWTP would be exceed County standard .	M-N-4. To reduce noise levels from the WWTP, the Proposed Project shall construct a nine-foot barrier at the property line south of Planning Area 1 and north of SR-76 and a seven-foot barrier proposed south of the WWTP site.	Less than significant
3.5 Hazards	HZ-1. Two irrigation ponds on-site that were not sampled have the potential for levels of chemical residues that would be significant.	M-HZ-1. Prior to grading, irrigation water shall be removed from the two on-site irrigation ponds and soil samples from the bottom of the ponds shall be collected and analyzed for potential agricultural residues, to the satisfaction of the Director of DEH. If contamination is present, evidence shall be provided to the satisfaction of the Director of DEH that all contaminated soils from the irrigation ponds have been remediated under the oversight of the DEH's SAM Program or removed and properly disposed of at an appropriately permitted facility, in accordance with government agency regulations.	Less than significant
	HZ-2. Smudge pots are located at several locations within the Project Site and they appear to have been impacted by total petroleum hydrocarbons (TPH).	M-HZ-2. Prior to grading, surficial soil in the vicinity of the smudge pots and elsewhere on the property where minor surficial staining is evident shall be excavated, removed from the site, and properly disposed of at an appropriately permitted facility, in accordance with government agency regulations and to the satisfaction of the County DEH.	Less than significant

TABLE S-1
SUMMARY OF SIGNIFICANT EFFECTS AND MITIGATION MEASURES TO REDUCE THE EFFECTS
(CONTINUED)

Subchapter/Issue	Potential Effects	Mitigation Measures	Level of Significance with Mitigation
3.5 Hazards (cont.)	HZ-3. Demolition of existing structures on the Project Site could result in the release of asbestos and/or lead.	M-HZ-3a. Prior to issuance of a building permit that includes demolition of on-site structures and prior to commencement of demolition or renovation activities, a facility survey shall be performed to determine the presence or absence of asbestos containing materials (ACMs). Suspect materials that will be disturbed by the demolition or renovation activities shall be sampled and analyzed for asbestos content, or assumed to be asbestos containing. The survey shall be conducted by a person certified by Cal/OSHA pursuant to regulations implementing subdivision (b) of Section 9021.5 of the Labor Code, and shall have taken and passed an EPA-approved Building Inspector Course. Should regulated asbestos containing materials be found, it shall be handled in compliance with the San Diego County Air Pollution Control District Rule 361.145 – Standard for Demolition and Renovation. Evidence of completion of the facility survey shall consist of a signed, stamped statement from the person certified to complete the facility survey and shall be submitted to County DEH indicating that the survey has been completed and that either regulated asbestos is present or absent. If present, the letter shall describe the procedures that shall be taken to remediate the hazard.	Less than significant
		M-HZ-3b. Prior to issuance of a building permit that includes demolition of on-site structures and prior to commencement of demolition or renovation activities, a survey shall be performed by a California Department of Health Services (DHS) certified lead inspector/risk assessor to determine the presence or absence of lead based paint (LBP). All lead containing materials scheduled for demolition must comply with applicable regulations for demolition methods and dust suppression. Lead containing materials shall be managed in accordance with applicable regulations including, at a minimum, the hazardous waste disposal requirements (Title 22 California Code of Regulations [CCR] Division 4.5), the worker health and safety requirements (Title 8 California Code of Regulations Section 1532.1), and the State Lead Accreditation, Certification, and Work Practice Requirements (Title 17 CCR Division 1, Chapter 8). The survey must be submitted to and deemed complete by the County DEH.	Less than significant

CHAPTER 1.0 PROJECT DESCRIPTION, LOCATION, AND ENVIRONMENTAL SETTING

1.1 Project Objectives

The primary goal of the proposed Meadowood Specific Plan Amendment project (Proposed Project) is to accommodate housing demand based on projected population increases while retaining the existing rural atmosphere in the area. Overall, the Proposed Project seeks to balance population and housing needs with open space, agricultural land use, and the development of infrastructure for the community. The specific project objectives are summarized as follows:

1. Provide a variety of residential land uses to allow for residential development that meets the demand for housing in the region consistent with the rustic charm of Fallbrook.
2. Provide an opportunity for home ownership by increasing the housing supply with a variety of housing types in Fallbrook.
3. Provide for preservation of significant environmental and visual resources by conserving environmentally sensitive lands, prominent ridgelines and regional wildlife corridors while recognizing and mitigating for wildfire potential.
4. Provide for land uses that relate to the community in conjunction with the three neighboring projects.
5. Maintain agricultural uses as a buffer to natural lands.
6. Provide educational and recreational opportunities in close proximity to residential uses, accessible by public roads and trails.
7. Coordinate public facilities and infrastructure with adjacent landowners and ensure availability concurrent with need.
8. Require permanent preservation of natural open space areas, while allowing public recreational opportunities.
9. Through LAFCO's Sphere of Influence (SOI) determination, identify the most efficient service provider to ensure provision of water, wastewater, and recycled water to support anticipated growth consistent with County of San Diego (County) land use decisions.
10. To provide fire and emergency services, potable water service and wastewater service to the Project Site through annexation into the NCFPD and into a municipal water district (MWD), San Diego County Water Authority (SDCWA), and Metropolitan Water District of Southern California (MET).

1.2 Project Description Overview

The Proposed Project entails the development of a residential community located just north of SR-76, approximately one-quarter mile east of I-15 in the Fallbrook Community Planning Area. It is one of four projects (including Campus Park, Palomar Community College District and Campus Park West) that are currently planned in the northeast quadrant of I-15 and SR-76. The main access will be taken via Horse Ranch Creek Road, which will extend north from SR-76 and connect to Pankey Road, which then connects to Stewart Canyon Road. The Proposed Project will consist of a mix of single-family and multi-family units, an elementary school site, a neighborhood park, pocket parks, 5.9 miles of multi-use trails and supporting infrastructure on the 389.5-acre site. Open space is proposed to retain 49.3 acres of the existing citrus and avocado groves along with 122.4 acres of sensitive biological habitat.

The residential component of the Proposed Project consists of 844 units (up to 886 dwelling units if the Bonsall School District decides not to build on the school site) with an overall density of 2.3 dwelling units per acre (du/ac). Residential density within the planning areas ranges from 2.7 du/ac for the single-family units to 13.5 du/ac for a portion of the multi-family units. The higher density planning areas are clustered in the flatter, western portions of the property, adjacent to the more urban uses proposed in the Campus Park and Campus Park West projects, while single-family residences are proposed in the higher elevations below the groves and open space.

The Proposed Project seeks the following discretionary actions from the County: a General Plan Amendment (GPA), Specific Plan Amendment (SPA), Rezone, Vesting Tentative Map (VTM), MUP for operation of a WWTP, and three Site Plans. In addition, annexation of the Proposed Project into the NCFPD for fire protection services, into a MWD for water and wastewater service, and into SDCWA and MET for water service requires LAFCO's approval.

1.2.1 Project Component Parts

County of San Diego

Specific Plan Amendment - Planning Areas

The SPA land use plan is divided into seven planning areas (Figure 1-1). A land use summary for the Proposed Project, presenting the proposed land use, acreage, number of dwelling units, density, and the location of each land use by planning area is provided in Table 1-1, Project Land Use Summary. Each of the planning areas (PAs) is summarized below.

TABLE 1-1
LAND USE SUMMARY

Land Use	Planning Area	Gross Acreage	Dwelling Units	*Density	Zoning
Multi-Family Detached and Wastewater Treatment Plant	1	26.1	164	6.3	RV-10
Elementary School Site	2	12.7	42	3.3	RV-10
Neighborhood Park	3	10.1	0	-	S-80
Multi-Family Attached	4	24.0	325	13.5	RU-20
Single-Family Detached	5	132.5[4]	355	2.7	RS-3
Agriculture Open Space	6	49.347.3	0	-	S80
Open Space (including a water tank site and fire access road)	7	128.5	0	-	S80
Roads, etc.	-	8.0	0	-	-
	TOTALS	389.5	886	2.3	

*Density = dwelling units per acre

Note: (1) Dwelling units may be moved into Planning Area 3, if County staff decides that the park is best located in another location; (2) The overall dwelling unit number may vary slightly during the final mapping process and decrease by 42 if the school district chooses to build on the school site; and (3) Refer to the Implementation Section 9.3 for the findings required to determine substantial conformance with this Specific Plan Amendment.(4) The Agricultural Preserve will include 2.0 acres from PA5, increasing the total preserve acreage to approximately 49.3 acres.

Planning Area 1 is located at the southern entry of the Proposed Project. This area includes 164 multi-family units on 26.1 acres (6.3 du/ac). A WWTP is planned for the southernmost portion of Planning Area 1, adjacent to re-aligned SR-76.

Planning Area 2 is located adjacent to and east of Horse Ranch Creek Road, which is the boulevard running north and south through both the Proposed Project and proposed Campus Park project. This 12.7-acre area is designated as a site for a public elementary school. If the Bonsall School District decides not to build on this site, residential development at a density of 3.3 du/ac could be built in accordance with the underlying zoning, allowing for a total of 42 additional units.

Planning Area 3 is located east of Horse Ranch Creek Road and north of Planning Area 2. This area is designated as a neighborhood park on 10.1 acres. This planning area also includes a 40-space parking lot which would be used for both the park and school.

Planning Area 4 is located east of Horse Ranch Creek Road and adjacent to Planning Area 3. This area is designated for 325 multi-family attached units on 24.0 acres at a density of 13.5 du/ac. This area will also include a recreation center as described below.

Planning Area 5 is immediately east of Planning Area 4 and fronts Horse Ranch Creek Road. A total of 355 single-family detached units are proposed on 132.5 acres (2.7 du/ac).

Planning Area 6 is divided into three areas: (1) the center of Planning Area 5, (2) east of Planning Area 4, and (3) east of Planning Area 5. This area, totaling 47.6 acres, consists of 47.3 acres of groves and 0.3 acres of access roads and graded area and is proposed for agricultural open space. Existing avocado and citrus groves will be retained; there is no allocation for residential units. This area will be conveyed to the homeowners' association (HOA) and will remain agricultural in use. The total area of the agricultural open space is 49.3 acres and is comprised of the 47.3 acres of groves in PA6, and 2.0 acres from PA5.

Planning Area 7 is located in the northern and eastern most portions of the Project Site. This area totals 128.5 acres. The majority of this area will be preserved as natural open space with 115.6 acres conserved as part of the North County Multiple Species Conservation Program (MSCP). There would be no residential density allocated to Planning Area 7.

Recreation

Figure 1-2 illustrates the open space and recreation plan for the Proposed Project. The Proposed Project includes a total of 171.7 acres of combined agricultural and biological open space for passive recreational use. The neighborhood park in Planning Area 3 is proposed to be located to the north of the proposed elementary school site. In addition, the Proposed Project would provide two pocket parks throughout the residential areas. Approximately 5.9 miles of multi-use trails (hiking and horseback riding) throughout the Project Site will connect to the neighborhood park, on-site pocket parks and trails located on the adjacent Campus Park project. Figure 1-3 shows the proposed trails concept plan. These trails would not be lighted and no parking would be required. All trails within the open space preserve will use existing trails or dirt roads.

The Proposed Project would also include a recreation center for use by residents of the 325 multi-family units in Planning Area 4. The recreation center would be 8,487 square feet on two floors and would contain office space, a library, a media room, a fitness center, a conference room and a multi-use room for public use. It may also include an indoor racquetball court and spa/sauna/lockers.

Circulation

This circulation plan for the Proposed Project includes both on- and off-site road improvements. On- and off-site road improvements are shown on Figure 1-4. Access to the Project Site would be provided via Horse Ranch Creek Road, which would extend north from SR-76 and connect to Pankey Road, continuing north off-site to Stewart Canyon Road, as depicted in Figure 1-4. As requested by North County Transit District, transit service, including bus turn-outs, is planned along Horse Ranch Creek Road, as shown on the Meadowood Vesting Tentative Map. Street R would be extended off-site to connect to Pala Mesa Drive. Additionally, a connection with Pala Mesa Drive at the I-15 bridge would be constructed. A fire access road to Rice Canyon is proposed via a northeasterly extension of Street E, and to Pala Mesa Heights Drive (an existing paved road) via a northward extension of Street D. The fire access road will vary in width from 20 feet to 24 feet, and the road's design requirements will be included in the project's conditions per an April 15, 2009 meeting among the applicant and representatives from DPLU and DPW. The internal street system would consist of two-lane residential streets to serve future residents of the Proposed Project. These streets are planned to ensure

adequate circulation with the Campus Park, Palomar Community College, and Campus Park West projects, as well.

In addition to the proposed on-site circulation system, the Proposed Project, in conjunction with the three neighboring projects will be required to make improvements to off-site roadways. The responsibility for constructing these improvements will be determined by which project undergoes construction first. For example, Palomar Community College has already been approved and is conditioned to grade the full width of Horse Ranch Creek Road. Therefore, if the College project proceeds in advance of the Proposed Project, mitigation for impacts to biological and cultural resources associated with grading for Horse Ranch Creek Road will not be the responsibility of the Proposed Project.

Table 1-2 shows the development phasing plan for circulation improvements, which provides additional detail, as well as the timing of the completion of these improvements.

TABLE 1-2
DEVELOPMENT PHASING FOR TRAFFIC IMPROVEMENTS

Land Use Threshold	Improvements Required
Prior to occupancy of 1st unit	• Widen Horse Ranch Creek Road from SR-76 to Street Q • Improve intersection at: o Street Q/Horse Ranch Creek Road
Prior to occupancy of 400th unit	• Improve intersections at: o Street A/Horse Ranch Creek Road o Street B/Horse Ranch Creek Road

Water / Wastewater Services

As indicated in Figure 1-12, the Project Site is partially within the SLRMWD, and the remaining portion is not within the jurisdiction of any water or wastewater service provider. As a condition of approval, the Proposed Project will be required to obtain water and wastewater services from a MWD, as determined by LAFCO. LAFCO will conduct a Municipal Services Review (MSR)/SOI Update to determine the appropriate provider of water and wastewater service to the Proposed Project and vicinity. LAFCO will examine the suitability of the three agencies in the project vicinity, the SLRMWD, the RMWD, and the VCMWD, as potential service providers. Upon LAFCO's determination, the Proposed Project must be annexed into the appropriate MWD as well as into the SDCWA and MET. The LAFCO process for annexation is described in the following section, along with the infrastructure needed to provide service for each of the MWDs. The Proposed Project does not propose to use groundwater except as a secondary source of irrigation for the retained groves and common area landscaping during drier and hotter periods of the year. Groundwater use will be managed by the selected MWD.

Potable Water

The potable water will be stored on-site at sufficient elevation to allow gravity service from the water storage tanks to the zones served, without need for pumping. The preferred location of the water storage tanks is on the southern portion of the eastern ridgeline of the Project Site, as shown in Figure 1-5. An alternative site for the water tanks is identified; however, selection of the alternative site would require additional environmental analysis not contained within this EIR. The preferred location consists of a gently sloping knoll east of the school site. The knoll is disturbed by existing farming operations and would be graded to provide suitable pads for water storage tanks. The topography of this site allows for development of enough pad area for construction of two 2.5 million gallon circular steel water storage tanks. The access road to this site begins at the easternmost cul-de-sac and continues up to the ridge and water storage tanks. The required component parts of the potable water infrastructure are listed in Table 1-3.

Wastewater Treatment

The Proposed Project includes a WWTP consisting of a conveyance pump station, treatment facilities, equalization and disinfection basins, recycled water storage tanks and pump station, wet weather ponds, solids handling building and administrative facilities. The WWTP infrastructure, including the treatment plant site and wet weather ponds (components listed in Table 1-4a) would be constructed within the boundaries of the Project Site, at a minimum of 250 feet from any residences, as shown on Figure 1-6. Figure 1-7 illustrates the proposed layout of the WWTP and wet weather ponds within the southern portion of the Project Site. Wastewater would be pumped to the preliminary treatment building, which would also be located on-site. Post-treatment, the recycled water pump station would convey recycled water to the recycled water storage tank during periods of irrigation demand. During the low-demand winter months, treated storage tank water will be diverted by gravity to the wet weather ponds. Odor and vector control measures have been incorporated into the design of the WWTP as identified in Table 1-5.

To minimize bullfrog use of the water storage and detention basins associated with the WWTP, an exclusion fence shall be installed and maintained around the perimeter of each basin. The fence will be designed to prevent adult bullfrogs from entering the basins while minimizing obstructions to bird and mammals. The fence and basins will be monitored annually by a qualified biologist to determine the presence or absence of bullfrogs or other exotic amphibians using the basins. If bullfrogs are observed in the basins, they will be removed by the biologist using methods consistent with similar programs implemented by the Department of Environmental Health (DEH). Monitoring efforts shall be implemented once yearly after heavy rains when the basins will be inundated, and provide suitable conditions for bullfrog use and observation. The County Department of Parks and Recreation, as well as the DEH, will be provided yearly letter reports for five years following initial use of the detention basins. These agencies will also be contacted as necessary to determine the need and manner of bullfrog eradication efforts.

At the present time, however, it has not been determined which MWD will be identified to supply wastewater treatment and disposal facilities for the Proposed Project. As described below, the MWD will be identified by LAFCO through the LAFCO proceedings

that will occur only after a development project in this area is approved by the Board of Supervisors.

Recycled Water

The Proposed Project includes the construction of recycled water production and distribution facilities for irrigation of common area landscaping, slopes, parks, school fields, and as the primary method for irrigation of the retained groves, thereby reducing the need for imported water. Wastewater will be treated to recycled water quality standards at the WWTP. The recycled water infrastructure will consist of a conveyance pump station located at the WWTP site, a transmission pipeline, a recycled water storage tank, and recycled water distribution pipelines as shown in Figure 1-8. The recycled water storage tank will have a capacity of 0.65 million gallons, which is equal to one day of the projected recycled water use under summertime month maximum conditions. The recycled water facility components are listed in Table 1-4b.

Stormwater Run-off/ Drainage System

The Proposed Project includes the construction of on-site drainage facilities to protect against sedimentation resulting from stormwater runoff. The system includes Site Design, Source Control and Treatment Best Management Practices (BMPS), as well as Low Impact Development (LID) measures. These project design measures are detailed in Table 1-5 with further discussions in Chapter 4.2, Hydrology and Water Quality, as well as the Proposed Project's Stormwater Management Plan (SWMP) included in Appendix L-1.

Fire Protection

The Project Site is adjacent to the service boundaries of the NCFPD and is within the NCFPD's SOI. Annexation into the NCFPD will be required. A FPP has been prepared for the Proposed Project and is attached as Appendix J-2. In summary, the FPP includes:

- A wildland fire hazard rating assessment and calculations of the expected fire behavior in the event a wildland fire should occur within the off-site and on-site native and exotic vegetation.

- Preparation of computer-generated expected wildland fire behavior projections for the undeveloped natural areas within and/or adjacent to the planned development and will make fuel modification recommendations to mitigate any existing wildland fire hazard condition.

- Development of Project Site-specific fuel modification proposals to protect the planned structures from any losses due to a wildland fire.

- Presentation of "firewise landscaping" zone criteria for the three fuel treatment zones – (1) Setback Irrigated Zone A: "defensible space" that is absent of any combustible construction; (2) Zone B: "fuel modification" required around all planned buildings or residential structures; and (3) Thinning Zone C), located outside of Zone B, adjacent to high hazard vegetative fuels.

- Provides the necessary fire protection liaison with the names of the NCFPD staff, developer/builder, engineers, architects and landscape architects.

Community Design

The Meadowood Specific Plan Amendment, includes a Community Design Element, (discussed in Section 2.1 of this document), which contains policies to address visual quality aspects of the proposed common areas, such as streetscape, entry treatments, parks, pedestrian circulation, lighting, signs, and landscaping. The Community Design Element conforms to the Fallbrook Community Plan and Fallbrook Design Guidelines as detailed in Appendix 1 of the Meadowood Specific Plan/General Plan Amendment. Future development will be required to comply with the guidelines in this Element. In accordance with the Fallbrook Design Review Guidelines and I-15 Corridor Scenic Preservation Guidelines, this Element provides for site plan review pursuant to the "B" Designator Site Plan submittal and permitting process prior to development in these areas. The site plan review process includes the submittal and review of sketches, text, drawings and maps to address specific details of a project, as required by the Meadowood Community Design Guidelines. The review process may address physical design, placement of buildings and structures, interior vehicular and pedestrian access and the provision of improvements. Site Plans are reviewed and approved by the Director of Planning and Land Use. Decisions are appealable to the Planning Commission and Board of Supervisors. Proposed landscaping and park areas are shown in the conceptual landscaping plan (Figure 1-9).

Grading and Construction

The Proposed Project would require grading and improvements, including fuel modification zones on-site and off-site, as depicted on the grading plan (Figure 1-10). Overall earthwork would be balanced on-site with 2.4 million cubic yards of cut and fill. The grading plan also includes drainage basins located throughout the Project Site. Grading would occur in the flatter portions of the site, thus minimizing impacts to slopes that exceed 25 percent gradient. The maximum height of each manufactured cut and fill slopes would be approximately 80 feet, with a maximum 1.5:1 cut slope gradient. Blasting is anticipated for this project.

Grading would take place in three phases as shown on Figure 1-11. Fill material would be transferred from Phase 2 to Phase 1 during the first phase grading. A maximum of 200 acres would be exposed at one time. It is assumed that up to 41 acres of the Project Site would be disturbed on any given day under this worse-case scenario.

Grading and construction of improvements is anticipated to take several years to complete. For purposes of impact analysis, it should be noted that a variety of noise-generating equipment would be used during the construction phase of the project, such as scrapers, dump trucks, backhoes, front-end loaders, jackhammers, and concrete mixers, along with others.

Construction vehicles would access the Project Site via SR-76. Construction staging areas would be located within the proposed grading areas for the Proposed Project The grading equipment to be used for the Proposed Project would be brought to the site at the beginning of the grading period and would remain on-site until the completion of the grading period (e.g., equipment would not be hauled to and from the site daily).

To avoid traffic impacts during construction, the Proposed Project will prepare a Traffic Control Plan. This plan would be approved by the County Department of Public Works prior to the start of any clearing or grading activities, and would be implemented during construction of the Proposed Project. During periods of construction of roadway and utility improvements, access along segments of Horse Ranch Creek Road may be affected, but the road would remain open to traffic, including emergency vehicles. During periods of construction of all roadway improvements open to the public, two travel lanes (one in each direction) would remain open at all times, which may require the use of off-pavement shoulders. If construction limits traffic to one lane, traffic would be controlled and flagged around the work site. Other traffic control measures may include the use of traffic cones, advanced notification signage, and pedestrian/equestrian detours. Construction hours also would be defined in the Traffic Control Plan and would be outside of peak traffic periods. Fire access to all residential and commercial properties would be available at all times. In addition, the construction contractor shall provide a means for public liaison/contact information for public inquiries and concerns.

Implementation

Development of the Proposed Project will be phased and coordinated with the level of available services, including roads, water, wastewater, school and park services. The Proposed Project development will be phased over several years as the final improvements are completed. It is anticipated that up to the maximum number of final maps will be recorded.

Required roadway improvements would be constructed in phases (Table 1-2), to ensure that improvements are in place at the time of need. The Specific Plan Amendment details when roadway improvements may occur in relation to the Proposed Project development.

Water and wastewater facilities would be phased as the residential units are constructed. The WWTP construction would start in the first phase. Prior to the WWTP becoming operational, a temporary package plant will be utilized until sufficient wastewater is generated to operate the plant.

Several options are available for the major water infrastructure. Connection to the SDCWA aqueduct will be required for this development. In the interim, entering into an interagency agreement with a MWD in order to connect the Proposed Project to the MWD's existing pipelines and water supply will be considered. The interagency agreement would be between the agency that LAFCO determines is best able to serve the Proposed Project and an agency with water facilities in the area.[1] This will allow the SDCWA connection and construction of the storage tanks to be made after development of the first planning area.

Construction of the school and neighborhood park will occur as needed based on population.

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[1] One possible service agency is Valley Center MWD. Another is Rainbow MWD. Thus, one possible interagency agreement would be between Valley Center MWD and Rainbow MWD.

Land Use Planning Changes

In order to develop the Proposed Project, a number of land use and zone changes to the General Plan and the Fallbrook Community Plan are required. These include:

- Amend Regional Land Use Element Map to change the regional land use category from Special Study Area (SSA) and Rural Development Area (RDA) to Current Urban Development Area (CUDA);

- Amend the Fallbrook Community Plan to change the land use designation from (21) Specific Plan Area and (18) Multiple Rural Use to (21) Specific Plan Area for the entire Project Site; and

- Rezone the property from S90, Holding Area and A70, Limited Agriculture, to S88, Specific Plan Area.

These land use changes are addressed in more detail in Section 1.6, Inconsistencies of Project with Applicable Regional and General Plans and Chapter 4.1, Land Use and Planning.

LAFCO

Section 56425 of the Government Code authorizes LAFCO to establish or modify sphere of influence boundaries (reorganization) for local governmental agencies. This may include annexation, de-annexation within existing spheres of influence. Therefore, pursuant to the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Act), LAFCO can undertake a MSR and SOI Update for the Bonsall and Pala Hydrologic Areas (HAs). These HAs are located in northern San Diego County in the general vicinity of I-15 and SR-76 and cover the Project Site.

A MSR is an informational report that assists LAFCO, affected agencies, and the public in coordinating the efficient provision of public services to support anticipated growth. As a strictly informational document which does not result in any action, but is rather part of a study leading to an action, the MSR is exempt from California Environmental Quality Act (CEQA 15306). A SOI Update is also a tool that provides guidance for LAFCO in the establishment of physical boundaries and service areas of cities and special districts and would require environmental review pursuant to CEQA. A SOI is defined as a plan for the probable physical boundaries and service area of a local agency and is determined by LAFCO. A SOI provides guidance in reviewing individual proposals, promotes provision of efficient service, and prevents duplication of service responsibilities. A SOI may be used as one factor in forecasting an agency's future service needs within a geographic area to anticipate infrastructure planning and financing.

Pursuant to the Act, in determining a SOI, LAFCO is required to consider specific factors and make specific written determinations. These factors include:

- Present and planned land uses in the area, including agricultural and open space lands;
- Present and probable need for public facilities and services in the area;

- Present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide; and
- Existence of any social and economic communities of interest in the area.

As confirmed in a meeting with LAFCO, County staff and representatives from the three affected MWD (August 26, 2010), LAFCO can only make a determination on the MSR/SOI upon certification of the Meadowood EIR and approval of the Proposed Project. An appropriate water service provider for the Proposed Project and vicinity would be recommended by LAFCO as part of its MSR/SOI process, but final approval would be determined by the Board of Directors of the providing agency. LAFCO may consider three possible MWDs and may also consider alternative SOI recommendations that will affect the existing service areas of SLRMWD, RMWD and VCMWD. Existing service areas for these MWDs are shown on Figure 1-12. Figure 1-13 shows the possible options for obtaining service under the different LAFCO decision scenarios.

The selection of a water provider will also need the concurrent approval of the MWD, MET and the SDCWA. Although the SDCWA annexation policy states that "addition of territory through annexation of a new member agency shall be discouraged," should the SLRMWD be selected, it will need to apply for membership to the SDCWA and MET and LAFCO would have to activate the District's latent water powers. Regardless of which MWD becomes the water service provider for the Proposed Project, the Project Site must be annexed into the SDCWA by one of the following methods: (1) upon the terms and conditions fixed by the SDCWA's Board of Directors, by direct annexation, as a separate unit, of any MWD's corporate area; or (2) with the consent of and upon the terms and conditions fixed by the SDCWA's Board of Directors, by annexation to, or consolidation with, any MWD whose area is included within the SDCWA as a separate unit.

Background on MSR/SOI

Based on the significant increase of proposed development near the I-15 and SR-76 interchange and on the position promulgated by SANDAG to encourage development along transportation corridors, LAFCO staff authorized the SLRMWD to prepare an MSR/SOI Update Study proposal in late 2005. To complete the MSR/SOI Update Study, a Request for Information (RFI) survey was developed and distributed to the water service providers in the region: RMWD, SLRMWD, VCMWD, and Yuima Municipal Water District (YMWD). Although portions of the service areas of the Fallbrook Public Utility District and the Vista Irrigation District are located in the geographical boundary defined for the Bonsall and Pala Hydrologic Subareas MSR, LAFCO did not identify those agencies as having a direct relationship to the area experiencing increased development pressure.

In October 2006, the "Draft Municipal Service Review and Sphere of Influence Update for the Municipal Water Districts within the Bonsall and Pala Hydrologic Sub Area" (LSA, 2006) was prepared under LAFCO's purview. LAFCO staff concluded that the preparation of the 2006 Draft MSR/SOI would help resolve jurisdictional issues associated with the provision of water, wastewater, and recycled water services in that region. The 2006 Draft MSR/SOI focused on the RMWD, the SLRMWD and the VCMWD; LAFCO concluded that an evaluation of YMWD should be included in a separate study.

Under the MSR/SOI update document, the SLRMWD proposed that its SOI, which currently totals 3,207 acres, be expanded to include all of the planned developments that are adjacent to the existing SLRMWD boundary/SOI. The expansion area totals 2,977.5 acres. Of this, 1,628.35 acres are currently not within any district and 1,349 acres are within the RMWD.

Valley Center Municipal Water District

Currently, VCMWD's northwestern portion of its boundary and SOI are coterminous with the southernmost portion of SLRMWD's proposed SOI and the planned development areas. The SOI Update report evaluates the potential for VCMWD to provide water and wastewater services to the areas that are currently within the existing and proposed boundaries of SLRMWD. Because VCMWD does not currently provide wastewater services in the northern portion of the existing VCMWD area, development of wastewater and recycled water infrastructure would be required.

As part of this alternative, the VCMWD SOI would be revised to include the northern portion of the Proposed Project, which currently is not within any of the three MWDs. The alternative could also entail the VCMWD SOI assuming all of the property within the existing SOI of SLRMWD. The portion of the area currently within the RMWD would be excluded from the VCMWD SOI.

Overall, obtaining water and wastewater services from VCMWD would require district reorganization by LAFCO, including detachment from SLRMWD and deletion from their SOI, expansion of the existing VCMWD boundary and SOI, as well as annexation of the Project Site into MET and the SDCWA. This would be the preferred scenario for the Proposed Project.

Infrastructure improvements required for water and wastewater service to the Project Site under this alternative are discussed below.

San Luis Rey Municipal Water District

As previously mentioned, the southern portion of the Project Site is located within the boundaries of SLRMWD; however, SLRMWD currently operates only as a groundwater management agency, and does not provide retail water service to any customers and is not a member of MET or the SDCWA. Additionally, SLRMWD does not currently provide wastewater service.

SLRMWD does not have the ability to provide water service because it is not currently a member agency of SDCWA. For SLRMWD to obtain authority to provide water service, LAFCO would first need to make a decision on activating SLRMWD's latent powers and approving the proposed SOI modification as presented on the MSR/SOI Update. The SLRMWD Board of Directors has not pursued activation of its latent powers which would allow the District to provide water and wastewater treatment services. Therefore, LAFCO could modify existing sphere boundaries so that either RMWD or VCMWD would serve all or a portion of the proposed SLRMWD SOI (Section 56425 of the Government Code). Additionally, SLRMWD would be required to seek membership into MET and the SDCWA in order to have the water supplies necessary to provide water service. Once membership is achieved, annexation to both agencies could be processed concurrently. SLRMWD had intended to initiate the process of requesting the right to provide retail

water and wastewater services. In furtherance of its efforts to obtain LAFCO approval for activation of its latent powers to provide water and wastewater services, SLRMWD caused to be prepared a water, recycled water and wastewater facility Master Plan and a Program EIR.

In 2007, the Board of Directors of the SLRMWD approved the Master Plan and certified the Program EIR; however, several lawsuits were filed challenging the adequacy of the Program EIR. As a result of the court filings, the Board of the SLRMWD rescinded its approval of the Master Plan and decertified the Program EIR. Presently, the SLRMWD Board of Directors has suspended its efforts to activate its latent powers to provide retail water or wastewater services.

In addition to the administrative requirements, SLRMWD would have to construct facilities to deliver treated water from the Water Authority aqueduct pipelines into its service area.

Rainbow Municipal Water District

The MSR/SOI Update discusses the potential for the RMWD to extend services to lands currently within the boundaries of SLRMWD. SLRMWD's proposed SOI is located directly east of the existing RMWD boundary and SOI. The expansion of the RMWD service area under the MSR/SOI Update would require district reorganization by LAFCO, including detachment from SLRMWD and deletion from the SOI, expansion of the existing MMWD boundary and SOI expansion, as well as annexation to MET and SDCWA. Infrastructure improvements required for service to the Project Site under this alternative are discussed below.

Water and Wastewater Infrastructure Improvements

Regardless of which MWD serves the Project Site, the necessary on- and off-site water and wastewater improvements would be constructed as part of the Proposed Project (see Figures 1-5 and 1-6). On-site water improvements would include access roads, water storage tanks, and a recycled water tank. Off-site water improvements would include a new aqueduct connection and pipeline extensions. The preferred aqueduct connection is to the west of the Second Aqueduct system of the SDCWA, and would be within right-of-way of Reche Road, Stewart Canyon Road, and Pankey Road/Horse Ranch Creek Road. This alignment is preferred based on capacity availability and right-of-way available for the pipeline. An Alternative would be to connect to the First Aqueduct. A longer pipeline connection would be required for this alternative. These alternatives are shown on Figure 1-13. On-site wastewater improvements would include a WWTP and wet weather ponds. All of these facilities are described in detail in the Meadowood Water Study and Wastewater Service Alternative Analysis included as Appendices O-1 and O-3, respectively.

Impacts of on-site improvements are addressed as part of the Proposed Project as a whole in the relevant sections of the EIR, including: Aesthetics (Chapter 2.1), Air Quality (Chapter 2.2), Traffic (Chapter 2.3), Biology (Chapter 3.1), Cultural Resources (Chapter 3.3), and Hazards (Chapter 3.5). Should the Proposed Project be required to construct the alternative alignment, supplemental environmental review would be required.

Water

After LAFCO's SOI determination and its decision regarding annexation of the Proposed Project into a MWD, the necessary water facilities will be constructed. Facilities and the specific components required for water service for the Proposed Project is dependent on the LAFCO selection of which MWD will serve the Project Site. The inventory of water facility components for each MWD is shown in Figure 1-13, and is listed in Table 1-3.

Valley Center Municipal Water District and San Luis Rey Municipal Water District

Facilities required for service by VCMWD and SLRMWD would be identical and are shown in Figure 1-13. These facilities would consist of a new turnout and flow control facility along the SDCWA aqueduct system, transmission pipeline from the aqueduct to the Project Site, on-site water storage tanks, and appurtenant facilities. Based on projected demands and phasing considerations, the recommended water supply facilities for the VCMWD and SLRMWD include:

- A 2.5 cubic feet per second (cfs) flow control facility;
- A 12-inch diameter water transmission pipeline from an aqueduct;
- Five million gallons (MG) of treated potable tank storage on-site; and
- On-site pressure reducing stations.

The treated water storage tank will be sited at sufficient elevation to allow gravity service from the water storage tank to the zones served without need for pumping. The storage tank would be located on the southern portion of the eastern ridgeline of the Project Site, as shown in Figure 1-5. This site consists of a gently sloping knoll east of the school site. The knoll is disturbed by existing farming operations and would be graded to provide suitable pads for water storage construction. The topography of this site allows for development of enough pad area for construction of two 2.5 million gallon circular steel storage tanks.

Secondary access roads for maintenance and emergency vehicles would be constructed to the water tank site (Figure 1-5). The access road for the site begins at the easternmost Project Site cul-de-sac and continues up to the ridge and water storage tank site.

Rainbow Municipal Water District

The water supply facilities for service by RMWD are shown on Figure 1-14. If water is supplied by the RMWD, the required facilities would consist of new transmission pipelines connecting to existing transmission pipelines, and may include the same water storage tanks on the Project Site as for the other two districts. Unlike the SLRMWD or VCMWD options, service supplied by the RMWD would not require new connections to the First or Second aqueducts. Instead, water would be supplied to the development from existing RMWD facilities, including existing aqueduct connections. Should the RMWD option be chosen, water could be supplied to the Project Site via one of three nearby connection points (shown on Figure 1-14). Based on the RMWD 2001 and Draft

2006 Master Plans, as well as the demands and phasing considerations summarized above, the recommended water supply facilities include:

- A 12-inch-diameter water supply pipelines connected to the existing RMWD water system;
- 5 million gallons of potable on-site tank storage;
- Off-site pressure reducing station, if necessary; and
- On-site pressure reducing stations.

Wastewater

There are no existing wastewater treatment facilities serving the Project Site. As discussed above, LAFCO will determine which of the three MWDs currently serving the surrounding area would be appropriate to serve the Project Site.

Regardless of which MWD is selected by LAFCO to provide wastewater service to the Proposed Project, a new WWTP would be required to be constructed to treat wastewater. The total area of the proposed WWTP will be approximately one acre. The WWTP and wet weather ponds (components listed in Table 1-4a) would be located within the approximately two-acre area in the southernmost portion of the Proposed Project Site and north of realigned SR-76, as shown on Figure 1-1. Figure 1-7 illustrates the proposed layout of the WWTP and wet weather ponds. Wastewater would be pumped to the preliminary treatment building, which would also be located on-site. Post-treatment, the recycled water pump station would convey recycled water to the recycled water storage tank during periods of irrigation demand. During the low-demand winter months, treated storage tank water will be diverted by gravity to the wet weather ponds.

The proposed on-site location for the WWTP and wet weather ponds was selected based on an analysis of alternative locations in a technical report (May 2009). Each of the alternative site locations, both upstream and downstream along the San Luis Rey River, was rejected based on potential environmental impacts associated with the development of a WWTP at each site. The analysis of the alternate locations is included in the Meadowood Wastewater Study (2009) included as Appendix N-3.

Valley Center Municipal Water District

VCMWD currently provides wastewater service to approximately 2,400 customers through operation of a system of gravity mains, lift stations, and force mains, four decentralized WWTPs, and effluent wet weather ponds. VCMWD has no existing wastewater facilities adjacent to the Project Site.

San Luis Rey Municipal Water District

Although SLRMWD does not currently provide wastewater service to its customers, it previously proposed to obtain the right to do so, triggering the preparation of the MSR/SOI Update for LAFCO. SLRMWD has no existing wastewater infrastructure to serve the Proposed Project.

Rainbow Municipal Water District

The RMWD currently provides wastewater service to approximately 3,500 customers within the unincorporated communities of Rainbow, Bonsall, and portions of Fallbrook and Pala. RMWD has updated its Water Master Plan to evaluate preferred options, if any, for extending water service to the Proposed Project.

However, RMWD has adopted Ordinance 01-02, which states that "no parcel that is greater than 250 feet from the sewer mains and trunk lines active when the 2000 Sewer Master Plan was adopted shall be allowed to connect to the sewer system." Therefore, only parcels within 250 feet will be able to connect to the existing system as long as this ordinance is in place.

1.2.2 Technical, Economic, and Environmental Characteristics

Economic considerations that guided the design of the Proposed Project are based on the increased demand and need for affordable housing. The Proposed Project responds to the local and regional demand for affordable housing by providing a variety of housing types at a range of prices.

Environmental issues constraining development that were considered in the design of the Proposed Project include the following:

- Sensitive Biological Resources. The Project Site is part of a regional network of significant biological resources along the San Luis Rey River. Resources include wetlands, coastal sage scrub, and chaparral. The Proposed Project has been designed to conserve key habitat and wildlife corridors through the dedication of 122.4 acres of open space, of which 115.6 acres will be dedicated as part of the proposed North County MSCP preserve.

- Steep Slopes. Much of the Project Site contains steep slopes (25 percent or greater grade for 50 or more feet). The Proposed Project has been designed such that development encroachment into these slopes would be confined to a 16.2-acre area, which falls within the Resource Protection Ordinance's (RPO) 10 percent encroachment allowance. The Proposed Project will preserve approximately 164.1 acres with slopes of 25 percent or greater grade that meet the definition of RPO steep slopes.

- Visual Quality. The Project Site, especially the steeper slopes and ridges at the higher elevations, is visible from I-15 and adjacent homes and businesses along SR-76. The visual characteristics of the property were considered in the Proposed Project design, which plans the more intense uses on the flatter portions of the site at lower elevations. The prominent ridges and steeper slopes would be preserved in open space.

- Wildfire Hazards. The Project Site is in an area subject to wildfires. Thus, a FPP has been prepared for the Proposed Project and will be implemented by the HOA.

  The FPP sets forth a number of concepts to reduce and prevent fire hazards. These include:

- Requiring a Class A roof covering assembly, which includes a Class A roof covering on all portions of each residence. (Class A refers to the fire rating of the roof covering. Class A provides the best fire resistance.)

- Placement of fire-resistant building materials on all residential wall surfaces that are less than 125 feet from, and face, highly flammable vegetation and meet County Building Code Chapter 7A elsewhere throughout the Proposed Project.

- Working with the developer/designer to incorporate fire-resistive and enhanced fire-resistive construction in each home and to placing each home within its lot in such a way that any threat from wildland fire would be minimized.

- Maintaining NCFPD-approved landscaping in Zones A and B.

- Implementing and maintaining around residential structures an irrigated Setback Irrigated Zone A "defensible space" that is absent any combustible construction.

- Providing Zone B "fuel modification" where all combustible vegetation has been removed.

- Installing a residential fire sprinkler system in each home per National Fire Protection Association standards, as applicable.

When approved by the County Fire Marshal and NCFPD, all requirements and recommendations will be incorporated into the Proposed Project.

To avoid impacting sensitive resources including agriculture, biology, steep slopes and visual quality, the Proposed Project design uses lot area averaging in conformance with policies and regulations of the County of San Diego and the Fallbrook Community Plan. Policies that influenced the cluster design of the Proposed Project primarily include: (1) County of San Diego Zoning Ordinance Section 4230; (2) County of San Diego Regional Land Use Element Policy 1.55; (3) Fallbrook Community Plan Land Use Residential Policy 6; and (4) Fallbrook Community Plan Community Beautification and Design Policy 10.

Environmental design considerations that have been incorporated into the Proposed Project are listed in Table 1-5. These include standard measures to reduce environmental impacts associated with aesthetics, air quality, erosion, and water quality during grading and construction of the Proposed Project. Additional measures specifically related to the Proposed Project that address impacts associated with aesthetics, transportation, biological resources, agriculture, geology, noise, hazards, hydrology, public services, and utilities are also included. All of these environmental design measures are detailed in Chapters 2, 3, and 4 and are also included in Chapter 8 of this EIR.

1.3 Project Location

The 389.5-acre Project Site is located in the southeastern corner of the Fallbrook Community Plan area of the unincorporated area of San Diego County. It is situated northeast of the I-15 and SR-76 interchange and north of the San Luis Rey River (Figures 1-15 and 1-16). The newly realigned SR-76 is adjacent to the southern boundary of the Project Site.

The Project Site is located directly east and adjacent to the Campus Park, Palomar Community College District, and the Campus Park West properties, which are planned communities active in the planning process. East of the Project Site is the Rosemary's Mountain Rock Quarry site, which has an approved Major Use Permit. The land to the north and east of the Project Site is undeveloped and consists of citrus and avocado groves and natural open space (Figure 1-17).

1.4 Environmental Setting

1.4.1 Regional Context

The Proposed Project area is within the unincorporated area of northern San Diego County, within the Fallbrook Community Plan area. The topography is characterized by the east-west San Luis Rey River Valley along the SR-76 corridor and the north-south I-15 corridor. Both the San Luis Rey River floodplain and the I-15 corridor are flanked by rolling hills which have historically been used for citrus and avocado groves, estate residences, and open space, with cattle grazing also occurring in the more rugged terrain. Row-crop agriculture is practiced within the flatter portions of the Project Site and to the east of the Monserate Mountain ridgeline, within Rice Canyon. A rocky outcrop, known as Rosemary's Mountain, comprises the southernmost toe of the Monserate Mountain ridge and abuts the southeastern corner of the Project Site.

Communities adjacent to the Fallbrook Community Plan area are Pendleton-Deluz Community Plan area to the west, which includes Camp Pendleton; Riverside County to the north; Rainbow Community Plan area to the northeast; Pala-Pauma Community Plan area to the east; Valley Center Community Plan area to the southeast; and Bonsall Community Plan area to the south (Figure 1-18). Several hundred homes of varying types exist in the area surrounding the Project Site, including farm homes on large parcels with citrus and avocado groves, detached single-family homes in the Lake Rancho Viejo subdivision, and mobile homes in the Rancho Monserate Mobile Home Park.

There are several other development projects planned within the immediate vicinity of the Proposed Project. Campus Park is a proposed project immediately adjacent to the Proposed Project on the west and includes single-family and multi-family residential uses, a town center, parks, office professional uses, and recreational facilities. Additionally, the Palomar Community College District proposes to build its North Education Center campus within a portion of the Campus Park project site. The proposed Campus Park West project is located within a teardrop shaped parcel at the northeast corner of I-15 and SR-76. The land comprising these three projects is currently primarily open space and pastureland.

The land to the north and east of the Proposed Project is undeveloped and consists of citrus and avocado groves and natural open space. South of SR-76 and the San Luis Rey River is the Lake Rancho Viejo residential project. West of I-15 and south of the San Luis Rey River are the Rancho Monserate Mobile Home Park and the Rainbow Municipal Water District offices and work yard. There is a gas station, a restaurant, and a park-and-ride facility in the northwest quadrant of the I-15/SR-76 intersection. Additionally, to the west of I-15 are several residential and resort projects including Pala Mesa Highlands, Pala Mesa Condominiums, and the Pala Mesa Shopping Center.

The SR-76 is the subject of a current proposal (SR-76 Project) to develop it into a four-lane highway that can accommodate widening to six lanes. The SR-76 Project has recently completed a newly realigned 1.3 mile stretch east of I-15 adjacent to the southern boundary of the Project Site. The new four lane highway is intended to relieve existing and future traffic congestion and improve motorist safety.

In order to implement the Natural Community Conservation Planning (NCCP) program of the Department of Fish and Game, the County of San Diego, along with other local agencies, is in the process of creating a MSCP for the unincorporated areas of northern San Diego County (North County MSCP). The draft North County MSCP does not designate an exact preserve boundary, but instead designates large areas, within which conservation efforts are to be concentrated, and where development should occur. It is anticipated that the Proposed Project will be approved prior to the draft North County MSCP. Therefore, in order to assure preservation of the most important biological resources, the Proposed Project proponent and the Department of Fish and Game have negotiated a draft hardline on the most recent draft North County MSCP maps. Three major wildlife movement corridors are present on or within the vicinity of the Project Site. This hardline allows the continued wildlife movement to occur.

The Project Site is visible from both I-15 and SR-76 and the Proposed Project's viewshed is generally confined to the areas located within the ridgelines that surround the I-15 corridor and those that define the San Luis Rey River Valley.

1.4.2 On-site Characteristics

The Project Site is characterized by diverse topography and a variety of vegetation types and habitats. It occupies the eastern portion of a well-defined valley surrounded by steep hills. The dominant feature is Monserate Mountain, the southern ridgeline of which occupies the eastern portion of the site. The topography of the Project Site ranges from gently sloping, sparsely vegetated terrain approximately 260 feet above MSL at the southwestern end of the site, nearest to the San Luis Rey River, to the steeply sloping ridgeline along the northeastern portion of the site, which is the southern flank of Monserate Mountain with an elevation of approximately 840 feet above MSL. The eastern boundary descends into Rice Canyon, most of which is farther to the east. The site generally drains to the south and west and eventually into the San Luis Rey River.

The western and southern portions of the property are the most suitable for development with respect to steep slopes. RPO steep slopes are defined as those areas with slopes 25 percent and greater which have a minimum rise of 50 feet. The various slope categories on-site and the areas of encroachment into the RPO steep slopes are described within Section 2.1.

Land uses on-site include agricultural activities, consisting mostly of citrus and avocado groves and taking up most of the central and southern portions, or about 54 percent of the site. There are 13 homes, sheds, and agricultural buildings scattered throughout the site, none of which is historic.

The rugged and undeveloped terrain in the northern and eastern portions supports disturbed and undisturbed southern mixed chaparral, coastal sage scrub vegetation, disturbed coastal sage scrub, and coast live oak woodland. Wetland areas of the Project Site include mixed willow–mule fat riparian scrub at the western boundary and two isolated freshwater ponds. These ponds are artificial and are used to irrigate existing crops. In addition, the site includes non-native annual grassland and a network of graded dirt roads and other disturbed or developed areas.

Surrounding Water Districts

The Proposed Project requires LAFCO action to identify an appropriate MWD to serve the Proposed Project's water and wastewater needs as well as to approve the annexation and detachment of the Project Site into a MWD, the SDCWA and MET. The Project Site and vicinity is flanked by three municipal water districts: SLRMWD, RMWD, and VCMWD (see Figure 1-12).

San Luis Rey Municipal Water District

The SLRMWD encompasses approximately 3,000 acres along the San Luis Rey River. The SLRMWD is bounded on the west by I-15, on the east by the Pala Indian Reservation, and on the north and south by RMWD and VCMWD, respectively. Approximately 60 percent of the Project Site is located within the boundary of the SLRMWD. The northern 40 percent remains outside any existing MWD boundary; however it is located within the SLRMWD's proposed SOI.

Rainbow Municipal Water District

The RMWD encompasses a 51,200-acre service area, with its northern border coterminous with the Riverside County line. The RMWD bounds the Project Site on the north and east.

Valley Center Municipal Water District

The VCMWD encompasses approximately 64,253 acres. The District is bounded on the west by I-15, on the south by the city of Escondido and on the north by YMWD, Pala Indian Reservation, and SLRMWD. Although the VCMWD is not adjacent to the Project Site, it is located in close proximity to the Proposed Project's southern edge.

1.5 Intended Uses of the EIR

This EIR is an informational document that will inform public agency decision makers and the public generally of the significant environmental effects of the Proposed Project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the Proposed Project. A project level EIR was prepared for this Proposed Project because it will be used to evaluate the environmental effects of a single development project (General Plan Amendment, Specific Plan Amendment, Rezone, Vesting Tentative Map, Site Plans [3], and a Major Use Permit for operation of a WWTP for the Proposed Project). In addition, there are necessary off-site improvements (e.g., roads, water, and wastewater infrastructure) for the Proposed Project that are analyzed in this EIR. This EIR has been prepared in accordance with the requirements of the San Diego County Environmental Impact Report Format and General Content Requirements (2004a), and the statute and guidelines of the CEQA Public Resources Code Sections 21000, et seq., and the California Code of Regulations (CCR), Sections 15000, et seq., respectively.

As described in Section 1.2.1 above, the provision of water and wastewater service, as well as fire protection to the Proposed Project, would require SOI and annexation decisions by LAFCO. For water and wastewater service, modification of the existing SOI boundaries for the MWDs in the Proposed Project area will be required. Therefore, an intended use of this EIR includes the future LAFCO action of updating the SOI of MWDs in the Bonsall and Pala Hydrologic Subarea Basins. Inclusion of the relevant documentation and analyses of the SOI Update is provided in this EIR, once certified by the County, to allow LAFCO to utilize this EIR as a responsible agency when LAFCO acts upon the SOI Update and the formal annexation of the Proposed Project into a MWD. Accordingly, LAFCO is a responsible agency under CEQA (Cal. Code Regs. Title 14, Section 15381).

An Initial Study was prepared and is included as Appendix A to this EIR. The NOP (Appendix B) was prepared in April 2004. This EIR addresses issues identified in the Initial Study and comments received regarding the NOP.

1.5.1 Matrix of Project Approvals/Permits

Table 1-6, Matrix of Project Approvals/Permits, presents the discretionary actions required for the Proposed Project and analyzed by this EIR:

TABLE 1-6
MATRIX OF PROJECT APPROVALS/PERMITS

Discretionary Approval/Permit	Approving Agency
General Plan Amendment	County of San Diego
Specific Plan Amendment	County of San Diego
Vesting Tentative Map	County of San Diego
Rezone	County of San Diego
Blasting Permit	County of San Diego
Vesting Site Plan	County of San Diego
"B" Designator Site Plan	County of San Diego
"V" Setback Site Plan	County of San Diego
Major Use Permit for a WWTP	County of San Diego
Grading Plan	County of San Diego
Sphere of Influence Update	LAFCO
Annexation to a MWD	LAFCO and MWD
Annexation to SDCWA	LAFCO and SDCWA
Annexation to the MET	LAFCO and MET
Annexation to the NCFPD	LAFCO
Streambed Alteration Agreement, Section 1603, California Fish and Game Code	California Department of Fish and Game (CDFG)
Endangered Species Act - Section 7 Permit	United States Fish & Wildlife Service (USFWS)
Clean Water Act - Section 404 Permit	U.S. Army Corps of Engineers (ACOE)
Statewide National Pollutant Discharge Elimination System General Construction Activity Storm Water Permit	Regional Water Quality Control Board (RWQCB)
Clean Water Act - Section 401 (Porter-Cologne Act) Water Quality Certification	RWQCB

1.5.2 Related Environmental Review and Consultation Requirements

The lead agency for this proposed action is the County of San Diego. The responsible agencies are LAFCO, MET, and SDCWA, as well as SLRMWD, RMWD, and VCMWD (depending on the ultimate water supply provider and service provider determined by LAFCO). Consultation and coordination have occurred with numerous federal, state, and local agencies via the NOP process. The NOP distribution list is included in Appendix B.

Coordination occurred regarding key biological issues in a pre-application meeting that was held on September 12, 2006. Attending that meeting were representatives of U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (ACOE), California Department of Fish and Game (CDFG), and Regional Water Quality Control Board (RWQCB).

1.6 Inconsistencies of Project with Applicable Regional and General Plans

As presented in the Land Use and Planning chapter of this EIR (Chapter 4.1), the Proposed Project contains urban land uses and densities that are not consistent with the existing General Plan Regional Land Use Element regional categories of "Regional Development Area" (RDA) and "Special Study Area" (SSA) for the Project Site, and

goals pertaining to preservation of rural lands. As part of the Proposed Project, the General Plan Regional Land Use Map is proposed to be amended to remove the existing RDA and SSA regional categories and to re-designate the entire 389.5-acre site as CUDA, "Current Urban Development Area" (as shown in Figure 4.1-1). By changing the Regional Land Use category to CUDA, the General Plan goals pertaining to non-urban lands would no longer apply to the Project Site as it would be henceforth considered urban land, upon which urban residential land use types and densities would be appropriately suited.

The Proposed Project contains residential densities that are not consistent with the existing Fallbrook Community Plan (18) Multiple Rural Use land use designation for the eastern 297.5 acres of the Project Site, and therefore, proposes a General Plan Amendment to change the Fallbrook Community Plan land use designations to (21) Specific Plan Area for the entire site (as shown in Figure 4.1-2). By changing the land use designation for the eastern 297.5 acres of the Project Site to Specific Plan Area, the Proposed Project would conform to the Fallbrook Community Plan, and any potential inconsistencies pertaining to development of rural lands would be de facto resolved.

A General Plan Amendment and Rezone are proposed to bring the Proposed Project into conformance with the General Plan Regional Land Use Map, Land Use, Fallbrook Community Plan land use designation, and zoning.

1.7 List of Past, Present, and Reasonably Anticipated Future Projects in the Project Area

CEQA Guidelines Section 15355 indicate that a cumulative impact consists of effects created as a result of implementation of the Proposed Project evaluated in the EIR combined with other projects causing related impacts CEQA Guidelines Section 15130 requires that an EIR address cumulative impacts of a project when the project's incremental effects would be cumulatively considerable, wherein "cumulatively considerable" refers to the individual project's effects in conjunction with those caused by past, current, and probable projects.

Table 1-7 provides a list of projects that were considered in developing the cumulative impacts discussion in this EIR. Figure 1-19 shows the locations of the cumulative projects. The study area for the cumulative area is based on projects that are pending or recently approved within the vicinity of the Project Site. The list was obtained by consultation with the County of San Diego Department of Planning and Land Use and review of the San Diego Geographic Information Systems (SANGIS) database.

The potential for cumulative impacts is discussed for each environmental issue in Chapters 2, 3 and 4. Geographic areas considered for each cumulative analysis vary by environmental issue. For example: the visual quality analysis focuses on the Proposed Project's specific viewshed; the analysis of regional issues, such as air and water quality, is based on regional plans and policies; cumulative impacts to biological resources are based on the analysis of both surrounding projects with similar habitat as well as regional planning and preservation guidelines such as the NCCP; and the cumulative traffic analysis uses regional growth factors to predict future conditions.

1.8 Growth Inducing Effects

As presented in CEQA Guidelines Section 15126(d), whether or not a project may be growth inducing must be discussed in an EIR. The question to be asked is whether or not a "project would foster economic or population growth, or the construction of additional housing, either directly or indirectly, *in the surrounding environment*" (emphasis added). Included are projects that would remove obstacles to population growth. The CEQA Guidelines Section 15126.2(d) further state that "it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."

This section describes the potential for the Proposed Project to induce additional development in the Project Site area. The Proposed Project would construct a maximum of 886 single-family and multi-family units, as well as public facilities, both on- and off-site, that must be evaluated to determine the potential for growth inducement within the community of Fallbrook. Public facilities include a 10.1-acre site, to include a park and an associated parking lot, an elementary school, pocket parks and hiking trails. In addition, the Proposed Project would provide roadway improvements as described above in Section 1.2, Project Component Parts, Circulation. The Proposed Project would also include annexation to a MWD and the construction of an on-site WWTP, as well as on- and off-site facilities to provide water service to the Proposed Project.

The following analysis addresses each element of the Proposed Project and evaluates the potential growth-inducing impact of that element.

1.8.1 Growth Inducement Due to General Plan Amendment (Increases in Density)

This section addresses the influence of the Proposed Project on growth in the region resulting from residential development on the site as allowed by the General Plan Amendment, Specific Plan Amendment, and Rezone.

The Proposed Project differs from the existing General Plan in terms of land use, density and overall number of units. The adopted General Plan designates the Project Site as: (18) Multiple Rural Use and (21) Specific Plan Area. The (18) Multiple Rural Use area would yield approximately 33 dwelling units. The (21) Specific Plan Area portion of the Project Site would yield approximately 229 single-family dwelling units. Therefore, the Adopted General Plan would yield approximately 262 single-family dwelling units.

Since the Draft County of San Diego General Plan Update is currently in process, this section also compares the Proposed Project to the Draft General Plan Update as a current reflection of planned growth in the project area. The Draft County of San Diego General Plan Update Land Use Plan designates the portions of the Project Site planned for development as Village Residential. The Village category identifies areas where a higher intensity and a wide range of land uses are established or have been planned. Typically, Village areas function as the center of community planning areas and contain the highest population and densities. A sub category of the Village classification, Transit Node, includes sites within walking distance of future rapid transit stations. Served by either express or rail services, Transit Node areas are planned diverse, mixed-use areas

with a range of residential, retail, and, where appropriate, employment generating land uses (e.g., office/professional or light industrial), as well as parks and civic uses.

Differences between the Draft General Plan Update alternatives for the Project Site are discussed in Chapter 5.0. By comparison, the Proposed Project includes 886 units, the Referral Map and Planning Commission alternative include 382 units and the Draft Land Use Map includes 848 units.

In particular, the area surrounding the interchange of I-15 and SR-76 has been planned as a primary location for future growth. The I-15 Corridor Subregional Plan and the I-15/SR-76 Master Specific Plan (MSP) were prepared in 1988 to address the special needs of this area encompassing the land located within the four quadrants of the I-15/SR-76 interchange. The western 92 acres of the Project Site are within 1,178 acres of land referred to as the Master Specific Plan Area (MSP). Due to the location at this interchange, the MSP was envisioned as a node of future development.

The northeast quadrant of I-15 and SR-76, in which the Proposed Project is situated, has been identified by the SANDAG Smart Growth Concept Map as a potential Special Use Center smart growth area. Potential smart growth areas are locations where smart growth development could occur if local land use plans are changed and/or if the SANDAG 2030 Regional Transportation Plan (RTP) is modified to include adequate levels of planned transit service. Each smart growth place type is associated with certain housing and employment density targets and transit service thresholds.

The Special Use Center is identified as an area in which employment opportunities consist primarily of medical or educational facilities; low-, mid-, and high-rise buildings are featured; one non-residential land use dominates; and that draws from throughout the region/subregion. The minimum transit service characteristics associated with a Special Use Center is light rail/rapid bus. According to the 2030 RTP, the northeast quadrant of I-15 and SR-76 is planned for a Bus Rapid Transit and High Frequency local bus service, both to be phased in by 2020. The Proposed Project would be conditioned to participate, along with the other projects in the vicinity, in the contribution of funds for the acquisition, design, and construction of a future transit node in the location of the I-15/SR-76 quadrant. However, the specific location of the transit node planned for the I-15/SR-76 quadrant has not yet been identified; thus, is not analyzed in detail within this document. In a regional context, therefore, any growth that may be attributed to the Proposed Project is associated with these plans for the I-15/SR-76 interchange area.

1.8.2 Growth Inducement Due to Construction of Additional Housing

The existing Fallbrook Community Plan anticipates up to 262 dwelling units within the Project Site; however, in an attempt to address growth and housing needs, the County of San Diego is in the process of updating its General Plan, which specifically proposes to recognize the Project Site and surrounding areas as a region designated for increased housing (382 units per the Referral Map and Planning Commission alternative and 848 units per the Draft Land Use Map). Thus, the Proposed Project would represent an increase of 624 units more than the existing General Plan; 504 more than the Referral Map and Planning Commission alternative; and 38 more than the Draft Land Use Map. Therefore, the Proposed Project would contribute needed housing within region.

In addition, the Housing Element finds that multi-family housing provides for affordable housing in a community. The Draft General Plan Update estimates a total of 451 multi-family units for the three projects in the northeast quadrant of the I-15/SR-76 Interchange. The Proposed Project would contribute 489 multi-family units and would respond to the local and regional demand for affordable housing by providing a variety of housing types at a range of prices.

By adding new residents, the Proposed Project would increase the amount of consumers in the Fallbrook area. This may result in the need for additional commercial services. As stated above, the Draft General Plan Update identifies the area surrounding the Project Site for commercial and retail land uses; therefore, commercial growth is already anticipated for the Proposed Project area. Additionally, properties adjacent to the Project Site are in the process of obtaining the approvals for commercial and retail land use proposals and will meet this increased demand. Due to the fact that the approved General Plan Update Land Use Maps include planned commercial growth in the area, the Proposed Project would not be growth inducing with respect to commercial areas in Fallbrook.

1.8.3 Growth Inducement Due to Construction/Improvement of Roadways

Construction of new roadways or improvement of existing ones could potentially induce growth if the roadway development provides significantly improved accessibility to undeveloped or underdeveloped sites. In order to support the addition of up to 886 single-family and multi-family units, the Proposed Project includes the construction and/or improvement of on-site and off-site roadways.

As the primary access from SR-76, the Proposed Project would construct Horse Ranch Creek Road, a new four-lane boulevard with a raised median. This roadway would extend northward off-site through the adjacent Campus Park project site and connect with the existing Stewart Canyon Road, near I-15. The development of Horse Ranch Creek Road will allow anticipated levels of traffic to flow through areas designated for growth by the General Plan Update. The connection with the Campus Park development site will assure connectivity between two large-scale development projects already accounted for in County growth analysis.

The Proposed Project also includes Pala Mesa Heights Drive, a two-lane residential collector, located at the northwest edge of the Project Site. This road will be extended off-site through Campus Park property and connect to Horse Ranch Creek Road.

In addition, the Proposed Project includes Street “R” which will connect the southern portion of Horse Ranch Creek Road to the existing Pala Mesa Drive, through the Campus Park and Campus Park West project sites. Street “R” and Pala Mesa Drive will be designated as Light Collectors, and Pankey Road south of Street “R” to SR-76 will be improved to Collector standards. This provides a road system that will minimize Proposed Project traffic impacts to SR-76 by allowing traffic to flow within the Project Site and adjacent Campus Park development site. The proposed road classifications are sufficient to serve the Proposed Project and anticipated cumulative traffic On-site roadway construction will serve the Proposed Project and allow traffic movement of the three additional development projects, for which applications have already been submitted. The off-site improvements are limited to the area where they would serve only traffic from the Proposed Project and projected cumulative traffic in the northeast

quadrant of the I-15/SR-76 intersection. No road extensions are proposed through areas not currently planned for development. Therefore, roads proposed to service the Project Site, as well as those off-site road improvements, will not cause growth in the Fallbrook area beyond what is projected and anticipated in the County's proposed General Plan Update. Therefore, the Proposed Project would not facilitate development or remove an obstacle to the development of new areas.

1.8.4 Growth Inducement Due to Extension of Public Facilities

A majority of the Project Site is beyond the boundaries of the SDCWA. As discussed previously throughout this chapter, the Project Site requires annexation to a MWD for the provision of water and wastewater services. To this end, LAFCO will consider a SOI change and annexation of the Project Site into one of the three districts with services in the vicinity of the Project Site: SLRMWD, RMWD and VCMWD, and determine the appropriate provider. The extension of MWD boundaries and SOI determination(s) by LAFCO will address currently unserved areas, but will not have a growth inducing impact because the areas being considered for service are those which have been historically planned for growth. Moreover, the development of the Project Site and surrounding area are also forecasted, in various forms, under the proposed General Plan Update.

The Project Site is located in a region that has been planned for development for 30 years. Specifically, the Campus Park Specific Plan (SP-83-01) was originally adopted in 1983 allowing industrial and residential development. Over $5 million of infrastructure of sewer and water lines were placed in anticipation of Hewlett-Packard building a plant. Additionally, the Project Site is adjacent to the approved Palomar Community College-North Education Center which proposes between 75,000 to 150,000 square feet of development and related parking associated with instructional facilities and related college amenities. In addition to these approved projects, the I-15/SR-76 Interchange Master Specific Plan has paved the way for development proposals for new residences in the area, including the Campus Park Specific Plan Amendment and Campus Park West Specific Plan.

With specific respect to growth related to the demand for potable water, the SDCWA included the Proposed Project in the 2007 Update of the *2005 Urban Water Management Plan*. The anticipated water demands of the Proposed Project were included to allow a comprehensive analysis of future water demands of the area. As detailed in Chapter 4.6, there would be adequate water supply to meet the demands of the Proposed Project.

LAFCO will not undertake SOI determination(s) or annexation proceedings until the land use approvals have been approved by the Board of Supervisors. Notwithstanding the selected district, the Proposed Project includes the construction of all necessary infrastructures, such as aqueduct connections, pipeline extensions, water storage tanks, and the project serving WWTP.

While growth-inducing impacts could potentially result when a project extends water and wastewater infrastructure into a new area, this impact is avoided because the Proposed Project's infrastructure is sized to serve only the project.

The County of San Diego-Fallbrook Projects-Feasibility Study, dated October 19, 2010 (Black and Veatch 2010; "Feasibility Study"), analyzed the appropriate areas and

facilities required for a regional solution to water, recycled water, and wastewater infrastructure (Feasibility Study, Figures 6, 7 and 8), but determined that each project could proceed independently with facilities to serve the individual projects. The construction and implementation of a regional infrastructure would not be necessary or feasible; therefore, growth induction impacts would be speculative pursuant to CEQA section 15145. The location and timing for siting a region-wide-serving WWTP will be determined by the MWD serving the Proposed Project. The MWD that will provide service to the Proposed Project cannot be identified until LAFCO takes action on a SOI determination. Because LAFCO cannot take action on a SOI determined until the Proposed Project's Final EIR is certified, the determination of siting and sizing of a region wide serving WWTP is speculative at this time.

As a whole, this area has been slated for growth for 25 years via other planning documents, including the Sycamore Springs EIR and the Campus Park EIR. In addition to the approved previous action by the County Board of Supervisors, regional growth in this area has been anticipated by both SANDAG plans and the County General Plan Update. Sewer expansion into a previously unserved area may be removing an obstacle to growth; however, that growth is not unplanned. Therefore, the provision of water and wastewater infrastructure is not considered growth-inducing.

1.8.5 Growth Inducement Due to Provision of New Parks and Schools

The Proposed Project includes a neighborhood park and the provision of an elementary school site, but does not propose to build the school. The recreation component of the Proposed Project includes a 10.1-acre site for a neighborhood park, pocket parks, and a system of multi-use trails that would connect with future trails on the adjacent Campus Park project site, the neighborhood park, and with the pocket parks. Development of the park and trails would not be growth inducing because they are intended for use by residents of the Proposed Project, and existing and future residents in the Proposed Project area. The parks and trails are consistent with State and County requirements for parkland to serve the proposed number of homes. Adjacent development areas will also be required to provide recreational facilities, or pay fees in lieu of such facilities, when they are developed. Surrounding development areas will, therefore, not be dependent upon the Proposed Project.

The proposed 12.7-acre elementary school site would provide facilities for the 191 elementary school students within the Bonsall Union Elementary School District (BUESD) that would be generated by the Proposed Project. The availability of a new school site would assist the District in meeting the student enrollment demands in the Proposed Project area and would not be growth inducing. If a school is not constructed on this site, students would attend other schools within the Fallbrook Union Elementary School or BUESD. The construction of an on-site school would be under the control of the school district and would occur at the time of need, if at all.

1.8.6 Conclusion

In conclusion, the Proposed Project will not result in growth inducing effects for the following reasons.

1. The Proposed Project is located in an area envisioned to support additional development as identified by the SANDAG Smart Growth Concept Map, the I-15 Corridor Subregional Plan, the I-15/Highway 76 Master Specific Plan, and the General Plan Update.

2. The additional housing is proposed in an area which is planned to support residential and commercial developments.

3. Roadway construction will serve traffic from only the Proposed Project and two additional cumulative development projects for which applications have already been submitted, along with the approved Palomar College campus.

4. The area has anticipated growth since at least 1983 and is included in the 2007 Update to the CWA 2005 Urban Water Management Plan.

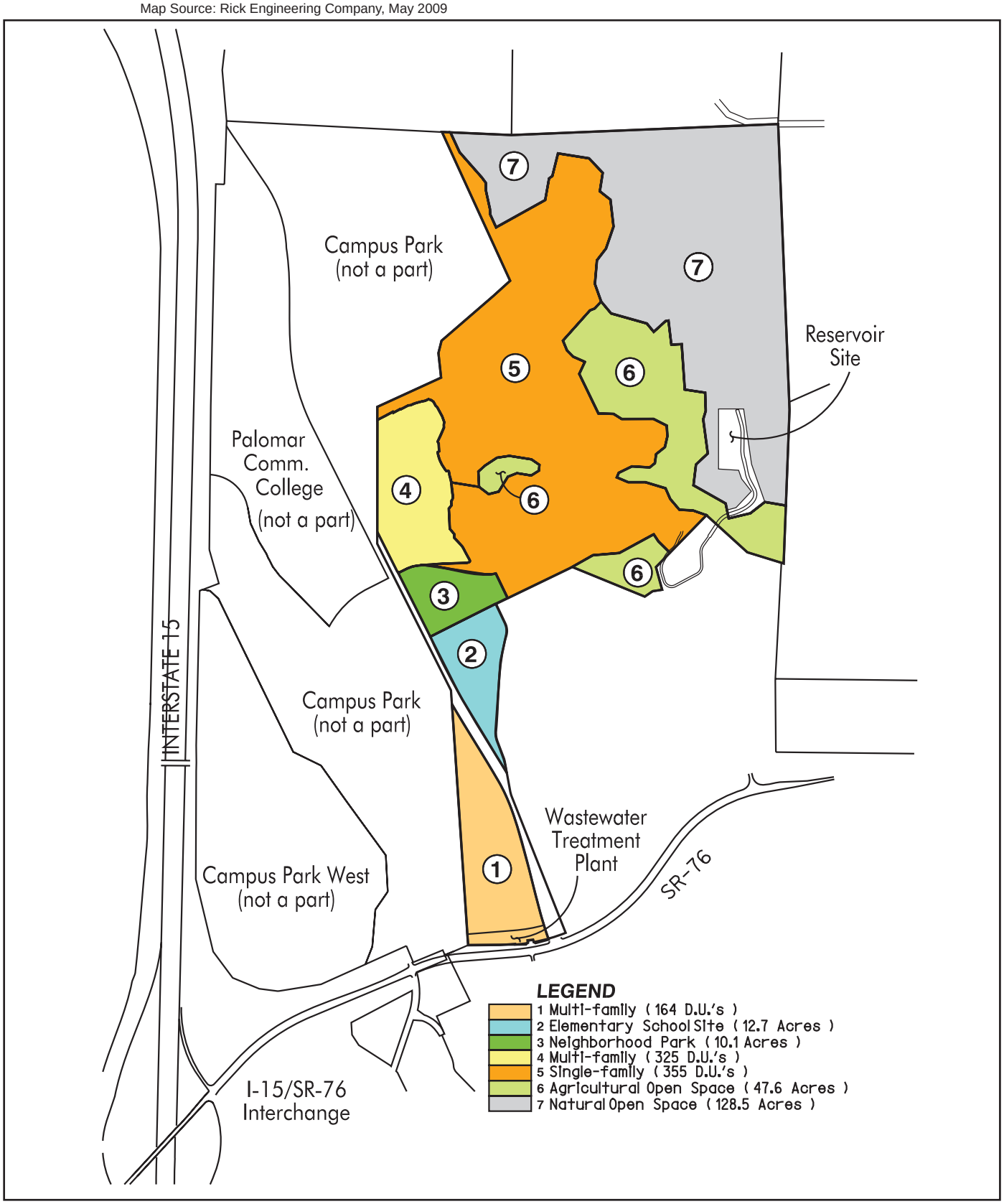
5. The proposed parks are scaled to comply with State and County requirements for parks and to serve the proposed number of persons.

6. The availability of a new school site would assist the BUESD in meeting the student enrollment demands created by the Proposed Project.

Thus, while the Proposed Project would entail development of a community with up to 886 residences, a school, recreation areas and infrastructure, it would be considered to accommodate planned growth. Further, it would not foster unplanned economic or population growth, the construction of additional housing, or remove obstacles to population growth.

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Map Source: Rick Engineering Company, May 2009



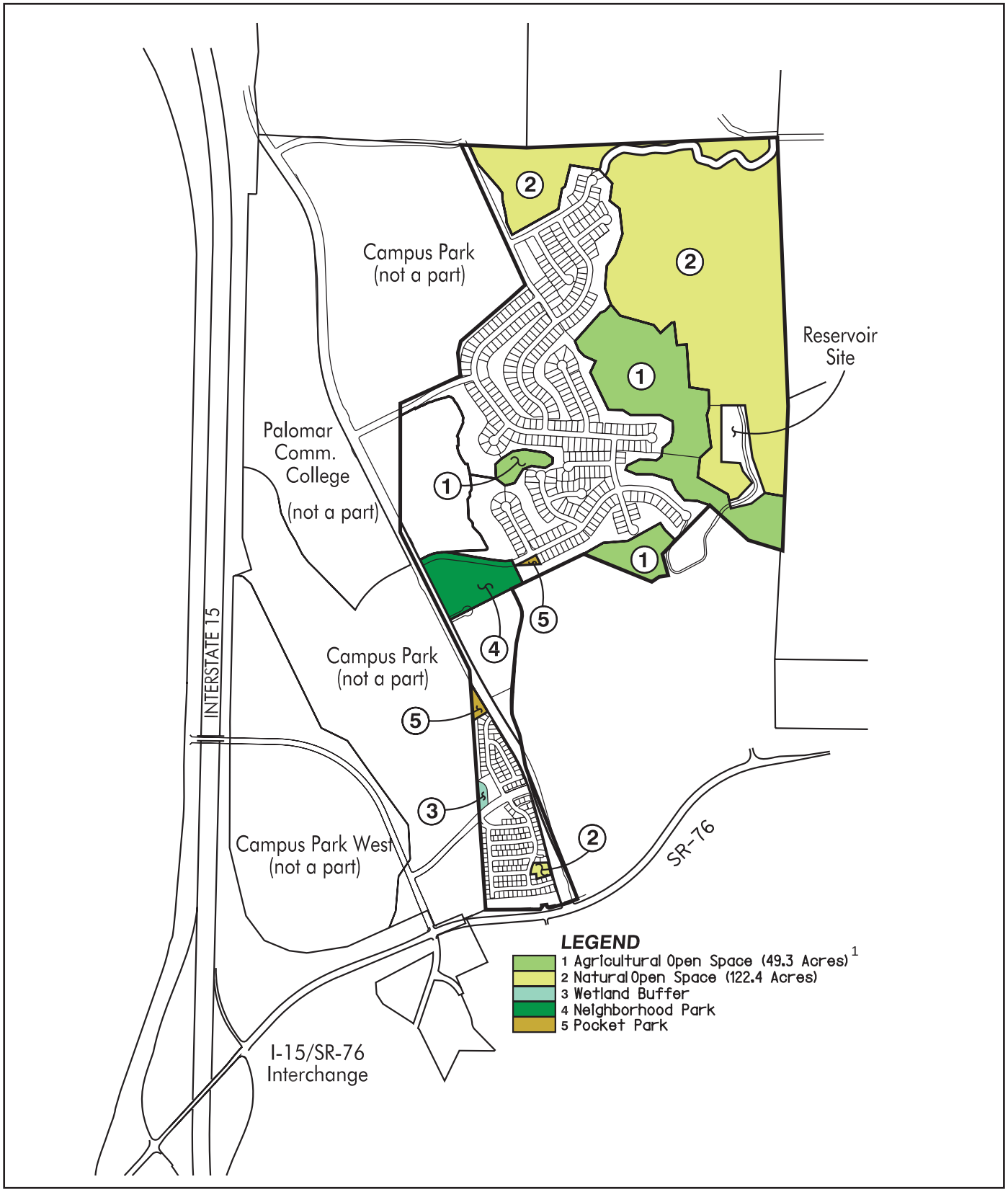
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FIGURE 1-1
Proposed Land Use Plan

Map Source: Rick Engineering Company, May 2009



FOOTNOTE:

[1] Agricultural open space includes 47.3 acres from PA6 and 2.0 acres from PA5.

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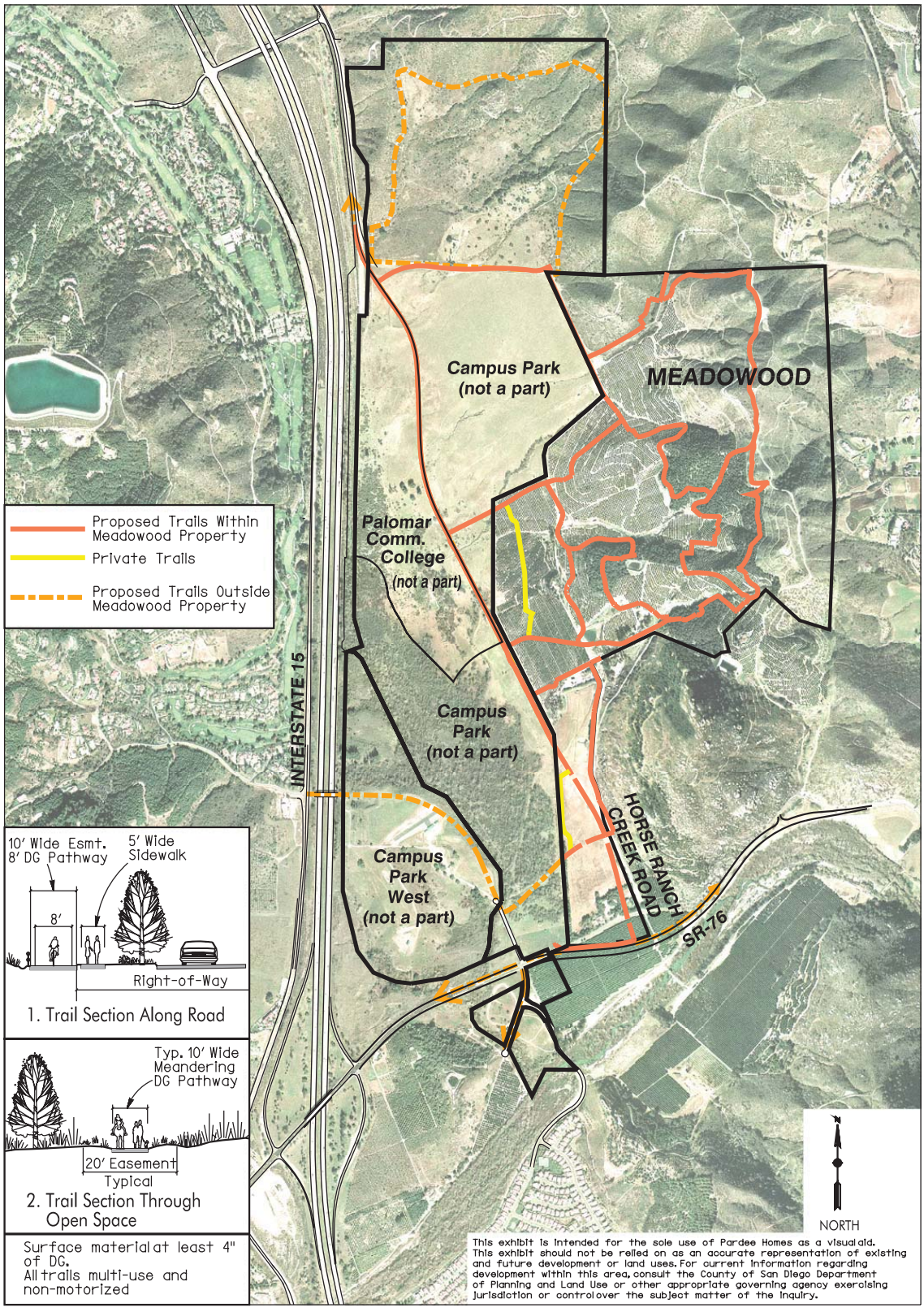
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FIGURE 1-2

Open Space Plan

Map Source: Rick Engineering Company, May 2009



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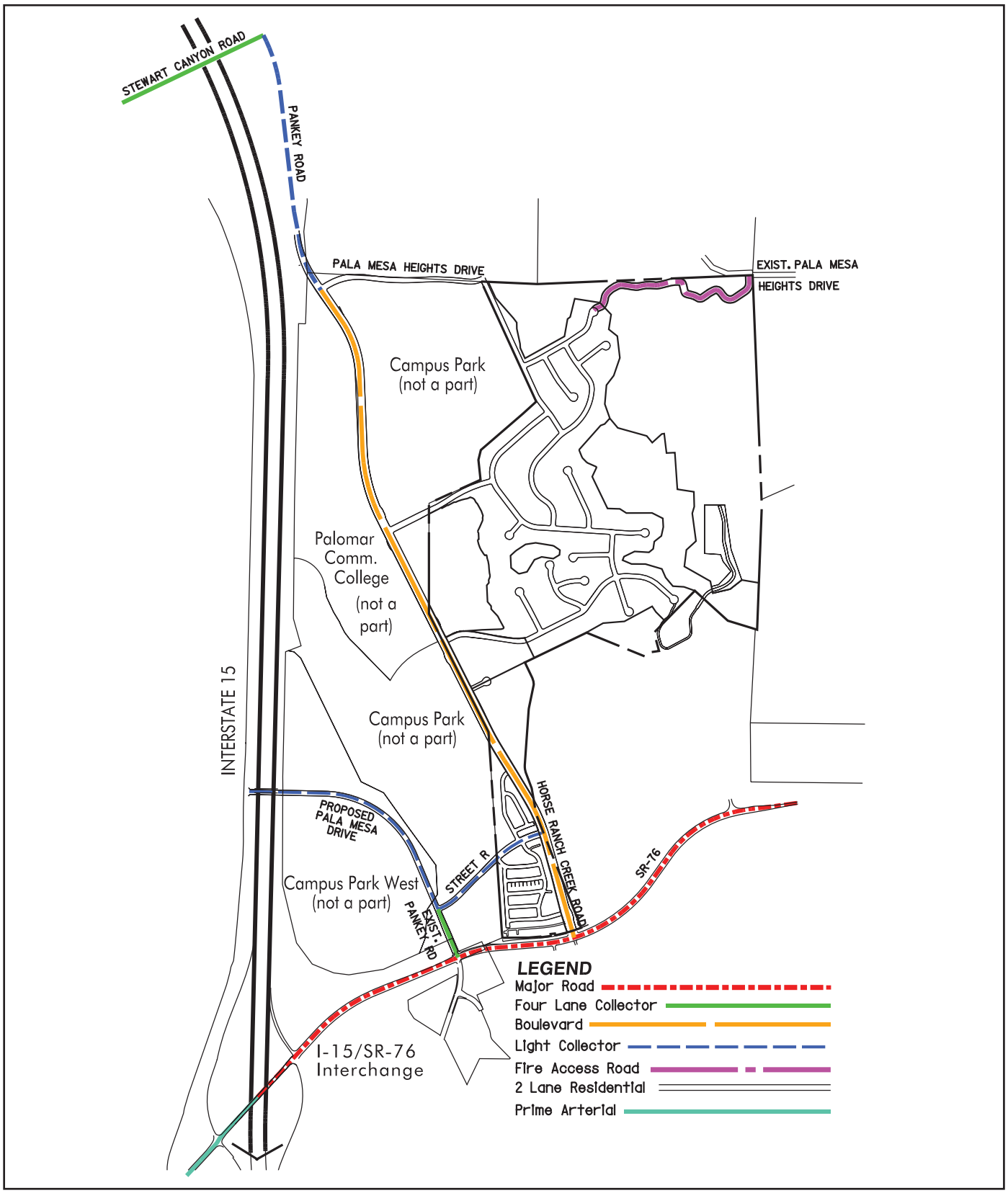
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FIGURE 1-3

Trails Plan

Map Source: Rick Engineering Company, May 2009



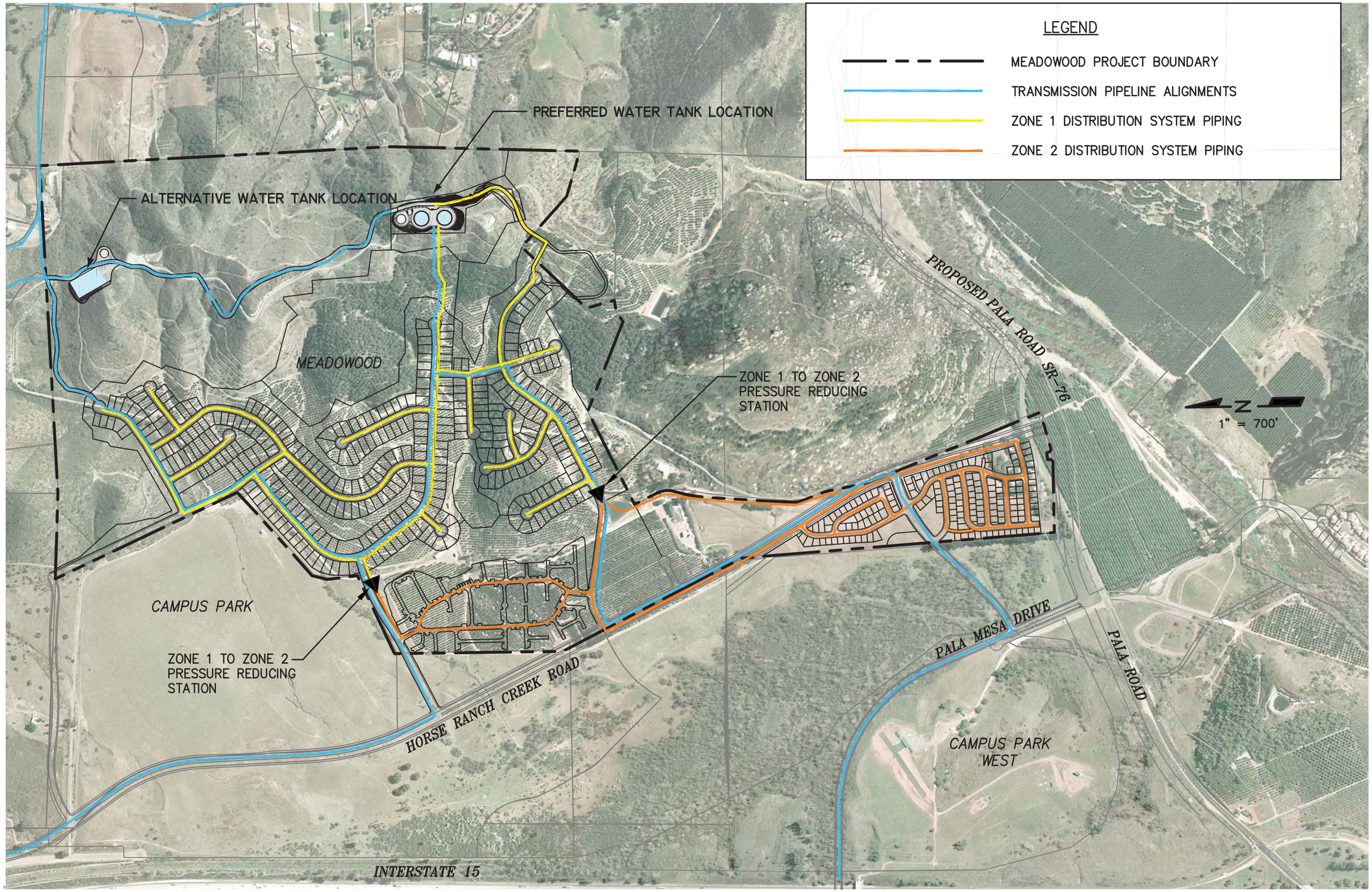
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FIGURE 1-4
Circulation Plan

Map Source: Dexter Wilson Engineering, Inc., May 2009



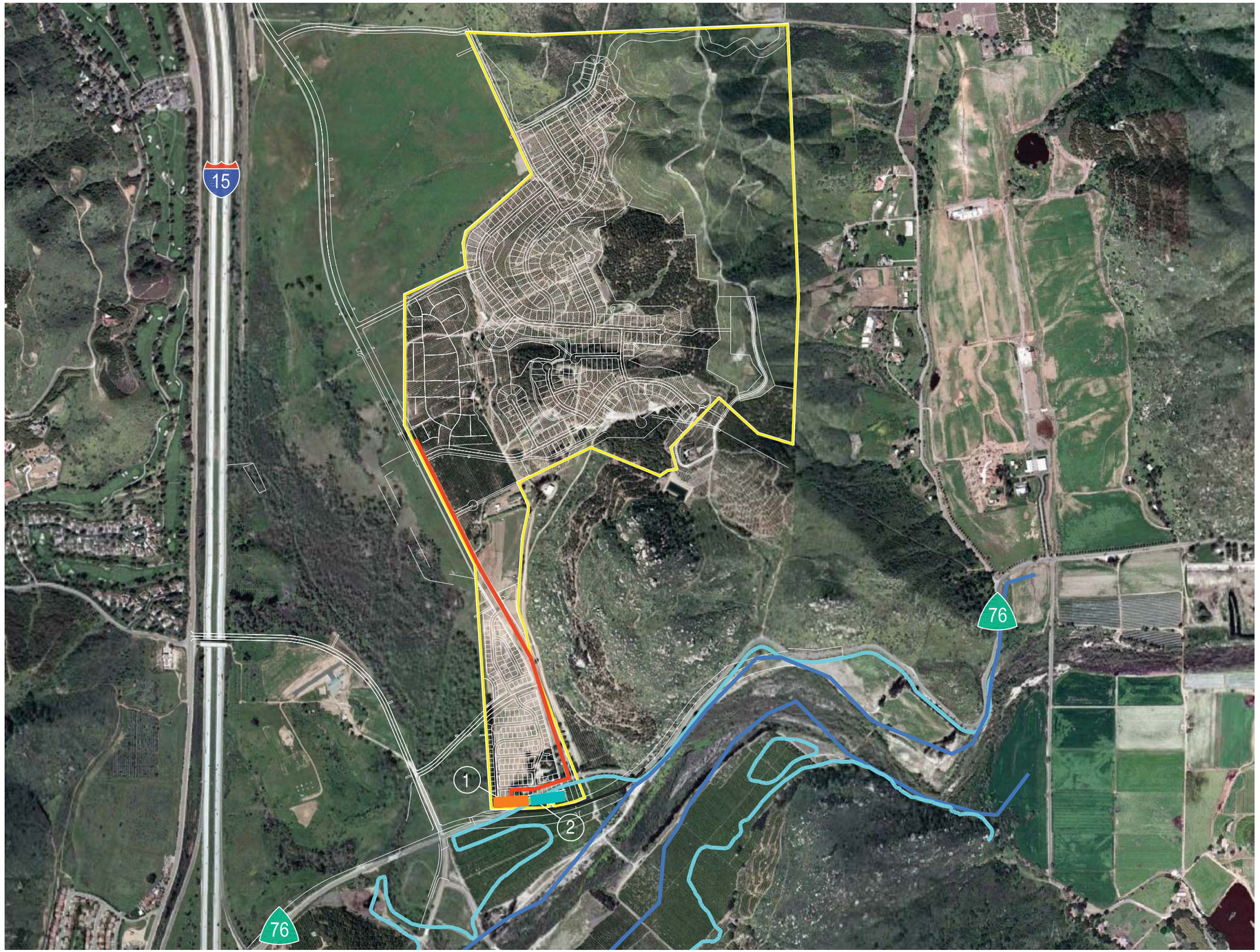
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FIGURE 1-5
Potable Water Distribution System

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Map Source: RW Beck, June, 2009



LEGEND

- PROPERTY BOUNDARIES
- SLR RIVER FLOODWAY
- CURRENT 100-YEAR FLOODPLAIN
- WASTEWATER COLLECTION MAIN
- TREATED WATER FORCE MAIN
- (1) TREATMENT PLANT SITE
- (2) WET WEATHER POND SITE

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FIGURE 1-6
Wastewater Infrastructure

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Map Source: RW Beck, June 2009

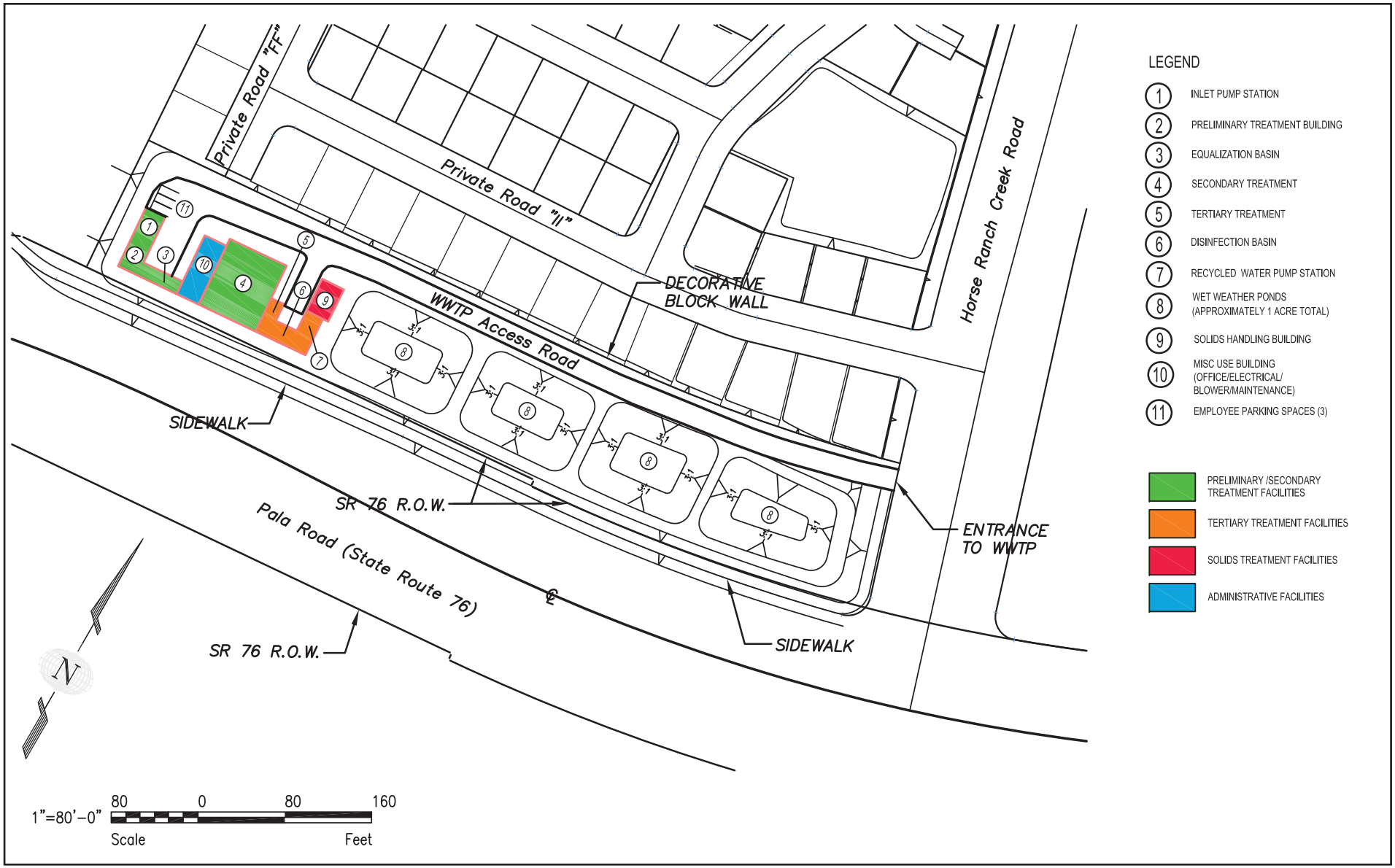


FIGURE 1-7

Proposed Site Layout for Wastewater Treatment Plant

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Map Source: Dexter Wilson Engineering, Inc., May 2009

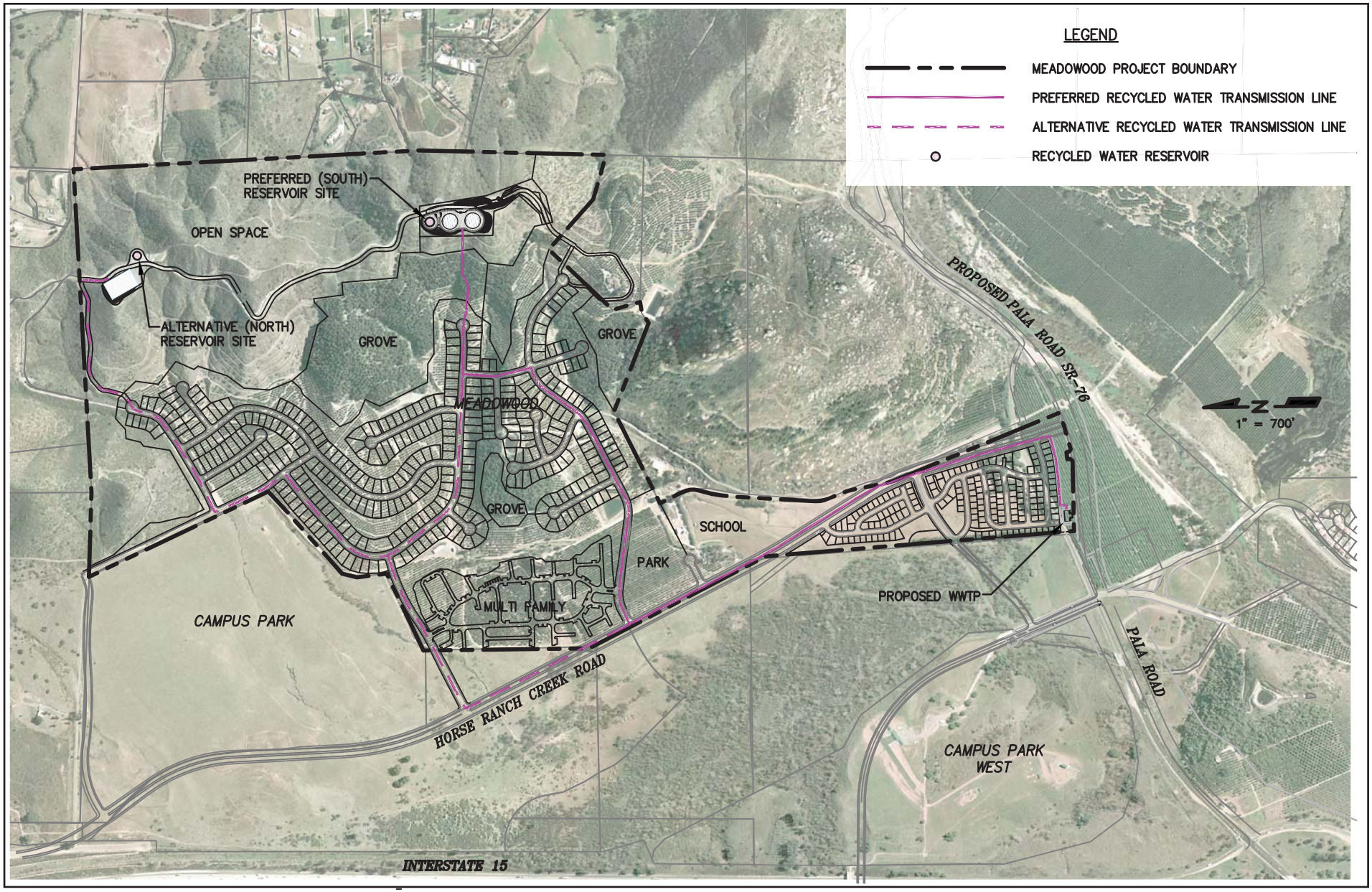
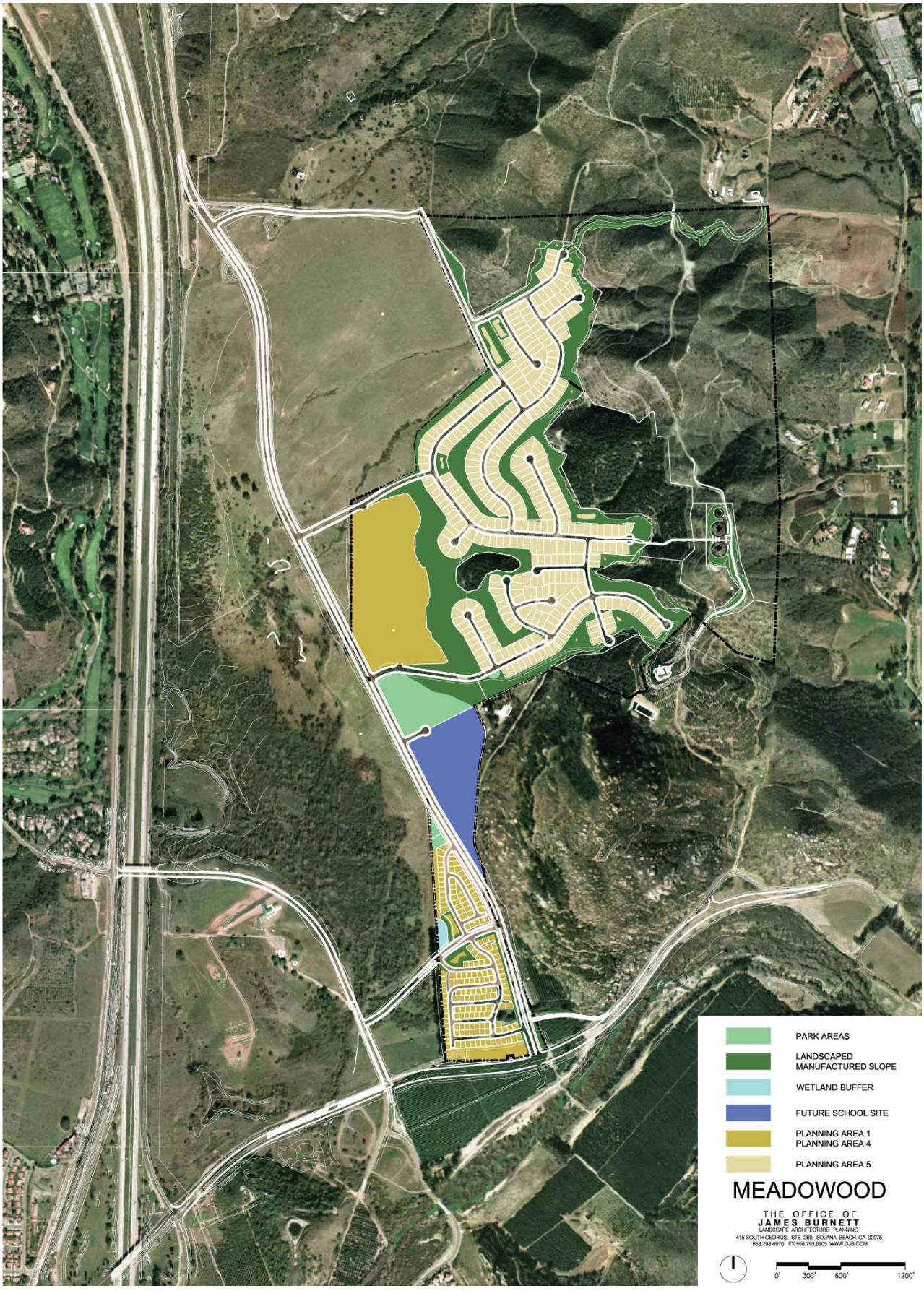


FIGURE 1-8
Recycled Water Infrastructure

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Map Source: James Burnett Landscape Architecture Planning, May 2009



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FIGURE 1-9

Conceptual Landscaping Plan

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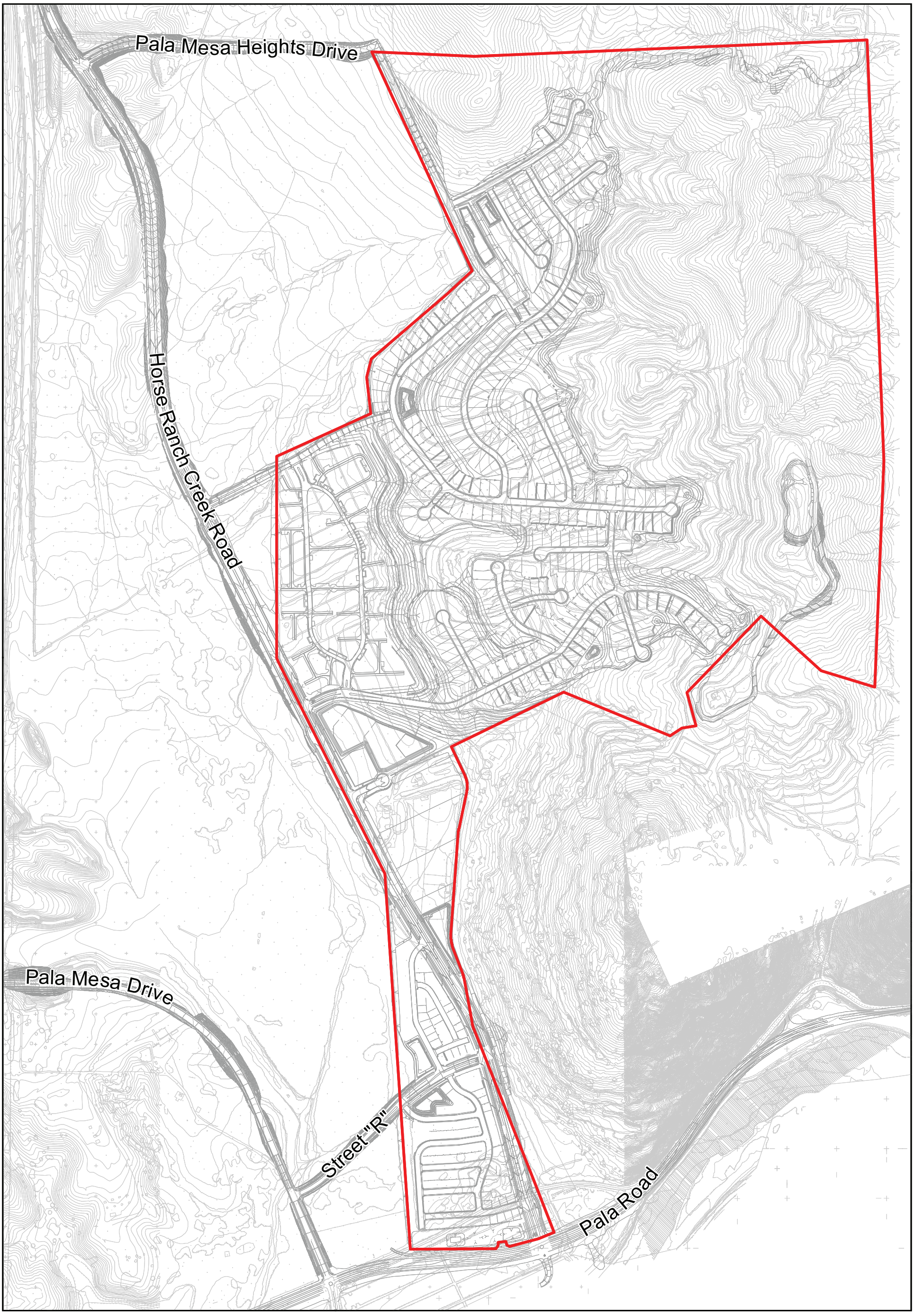


FIGURE 1-10

Proposed Grading Plan/Vesting Tentative Map

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Map Source: Rick Engineering Company, May 2009

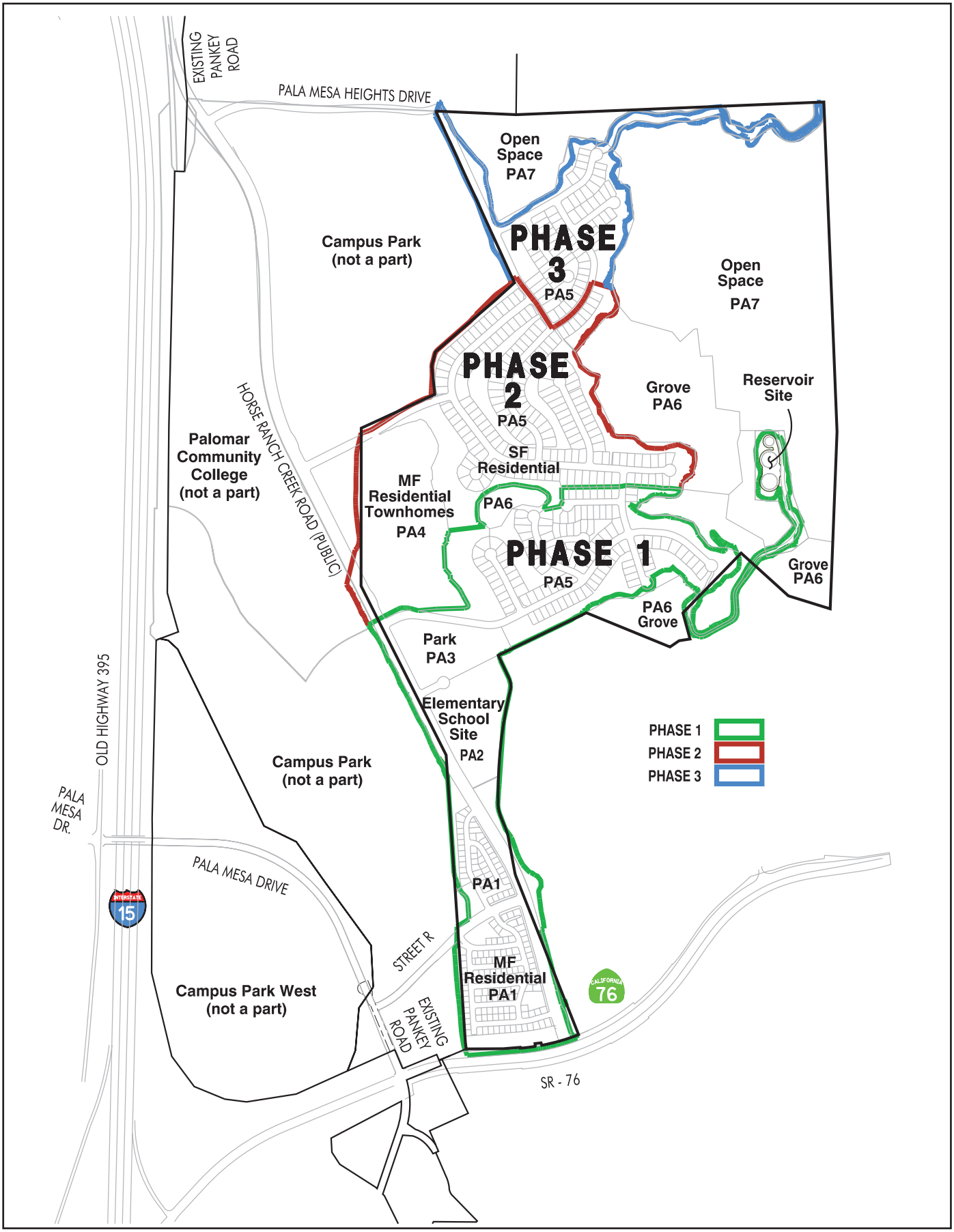


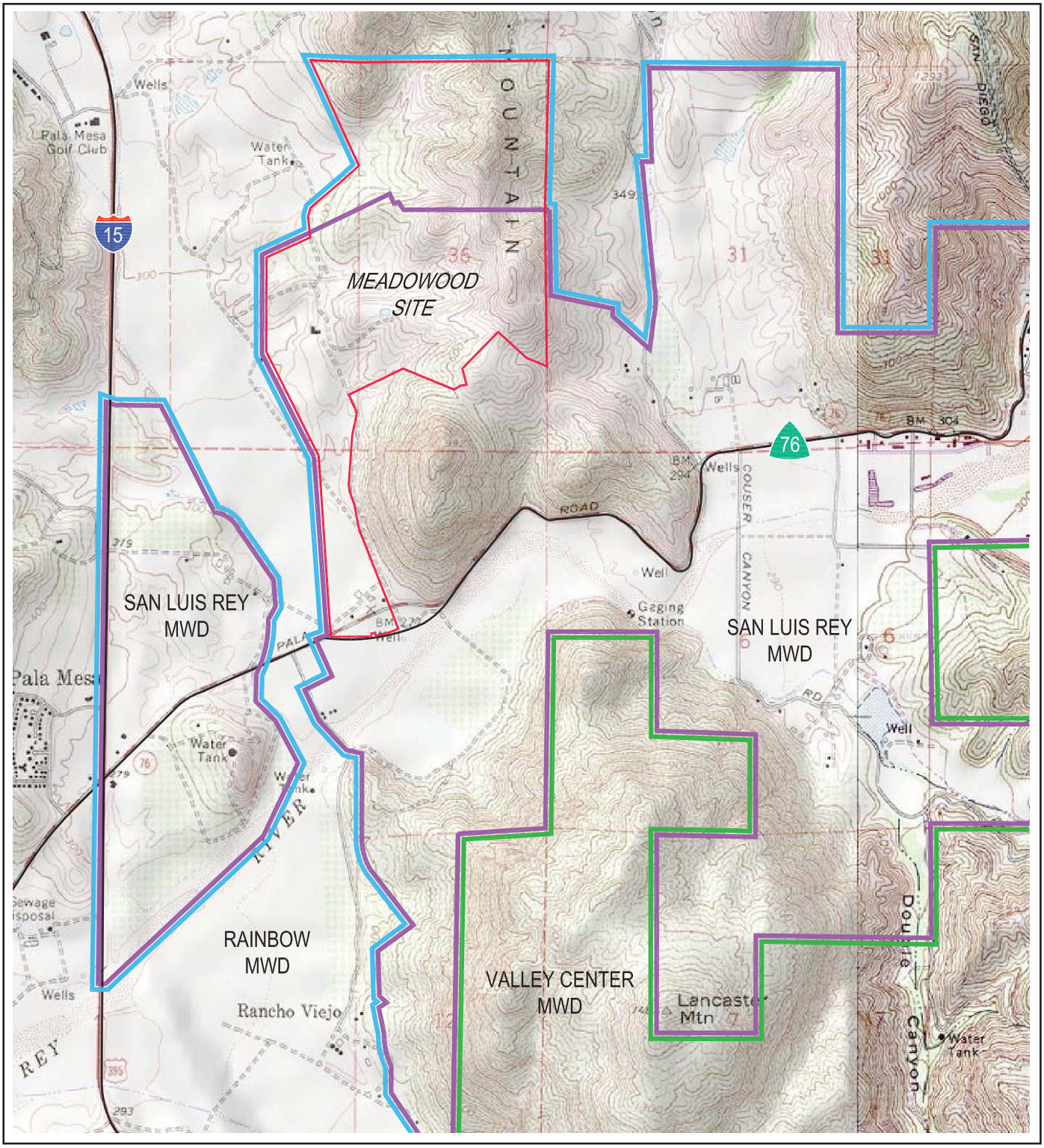
FIGURE 1-11

Phasing Plan for Grading

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Map Source: RW Beck, June 2009



LEGEND

- SAN LUIS REY WATER DISTRICT BOUNDARY
- RAINBOW WATER DISTRICT BOUNDARY
- VALLEY CENTER WATER DISTRICT BOUNDARY
- MEADOWOOD PROPERTY BOUNDARY

0 Feet 2000

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FIGURE 1-12
Water Districts

Map Source: Dexter Wilson Engineering, Inc., May 2009

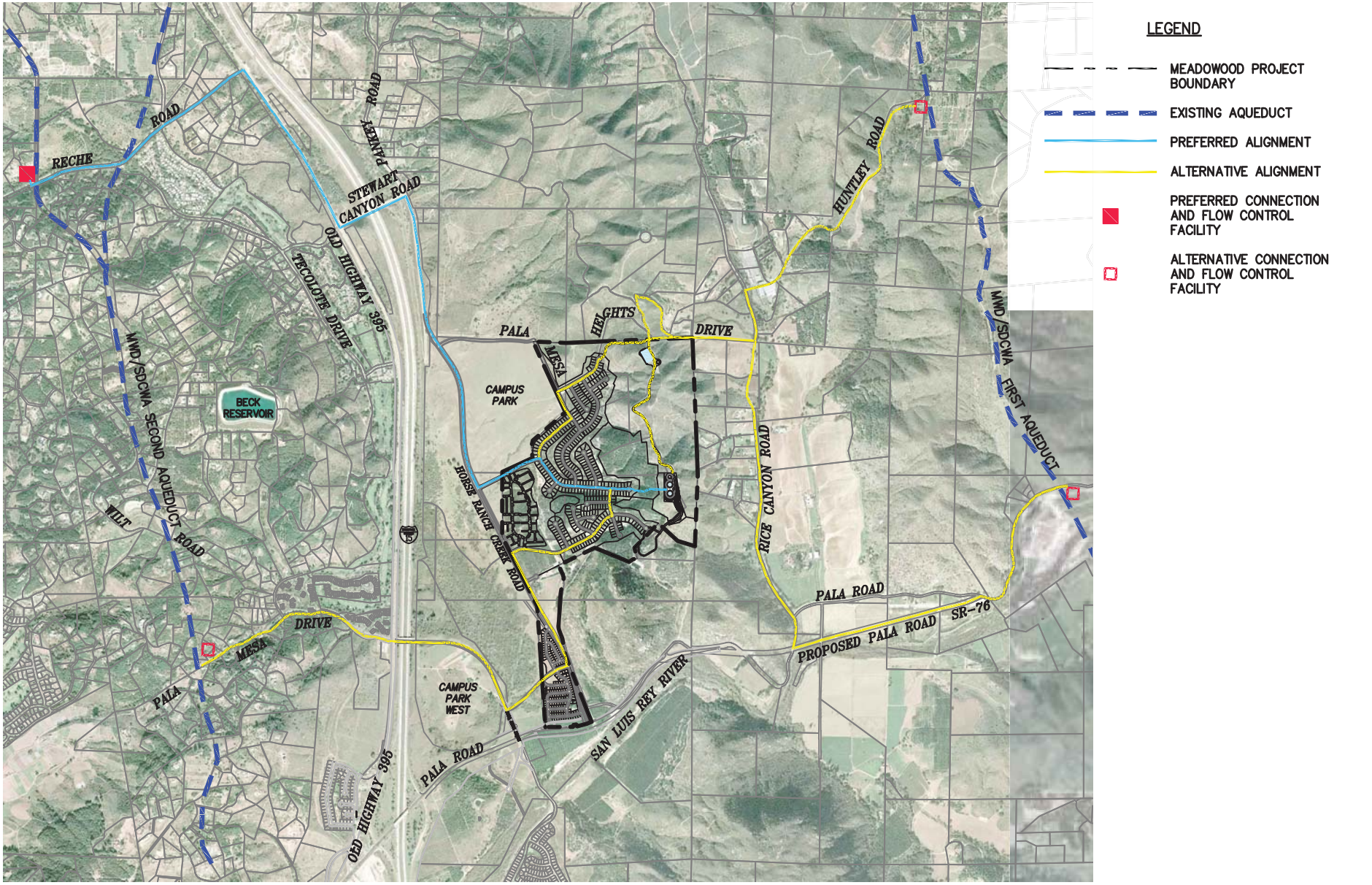


FIGURE 1-13
Water Infrastructure Options

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Map Source: Dexter Wilson Engineering, Inc., May 2009

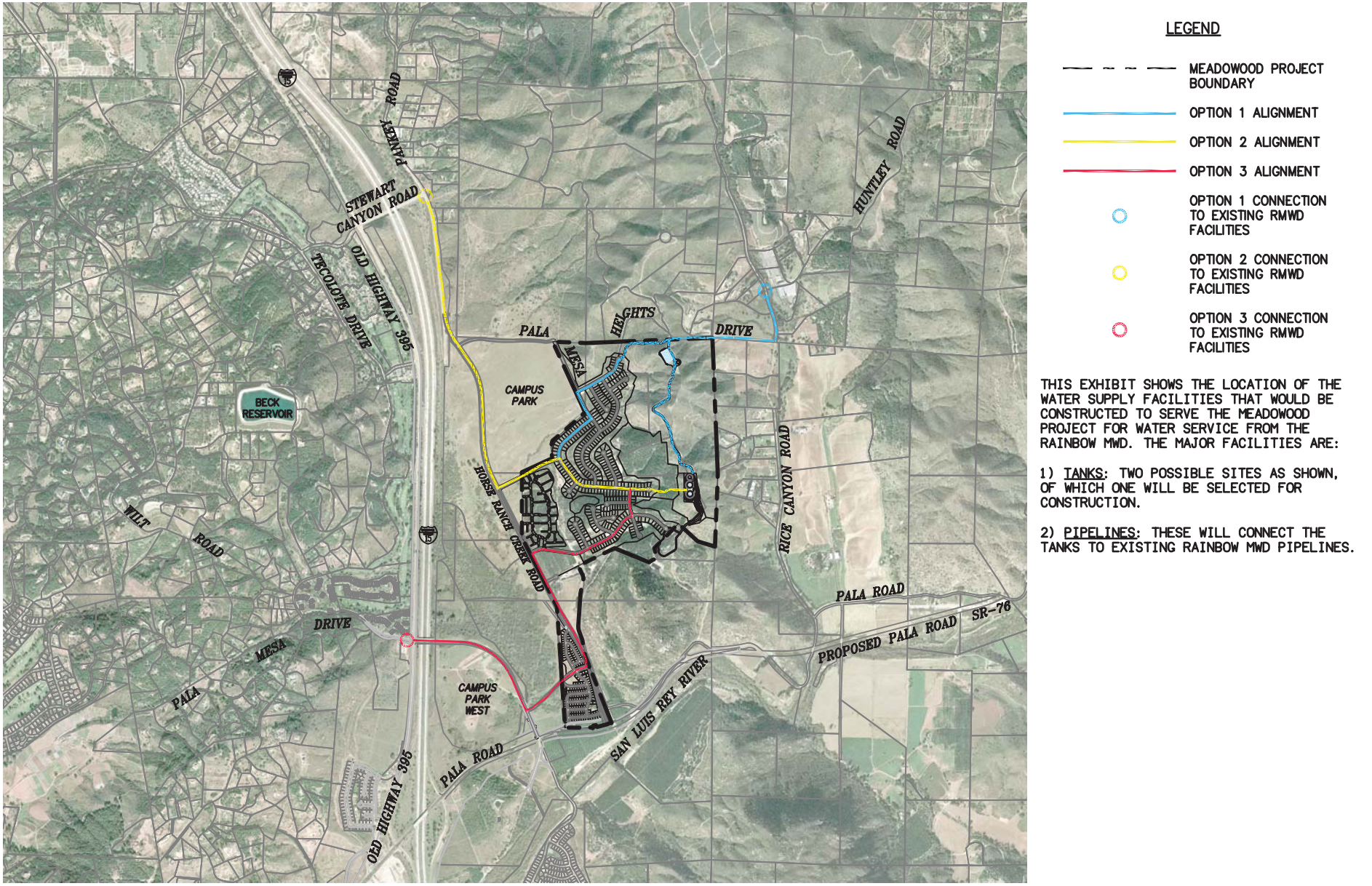


FIGURE 1-14
Water Infrastructure - Rainbow MWD

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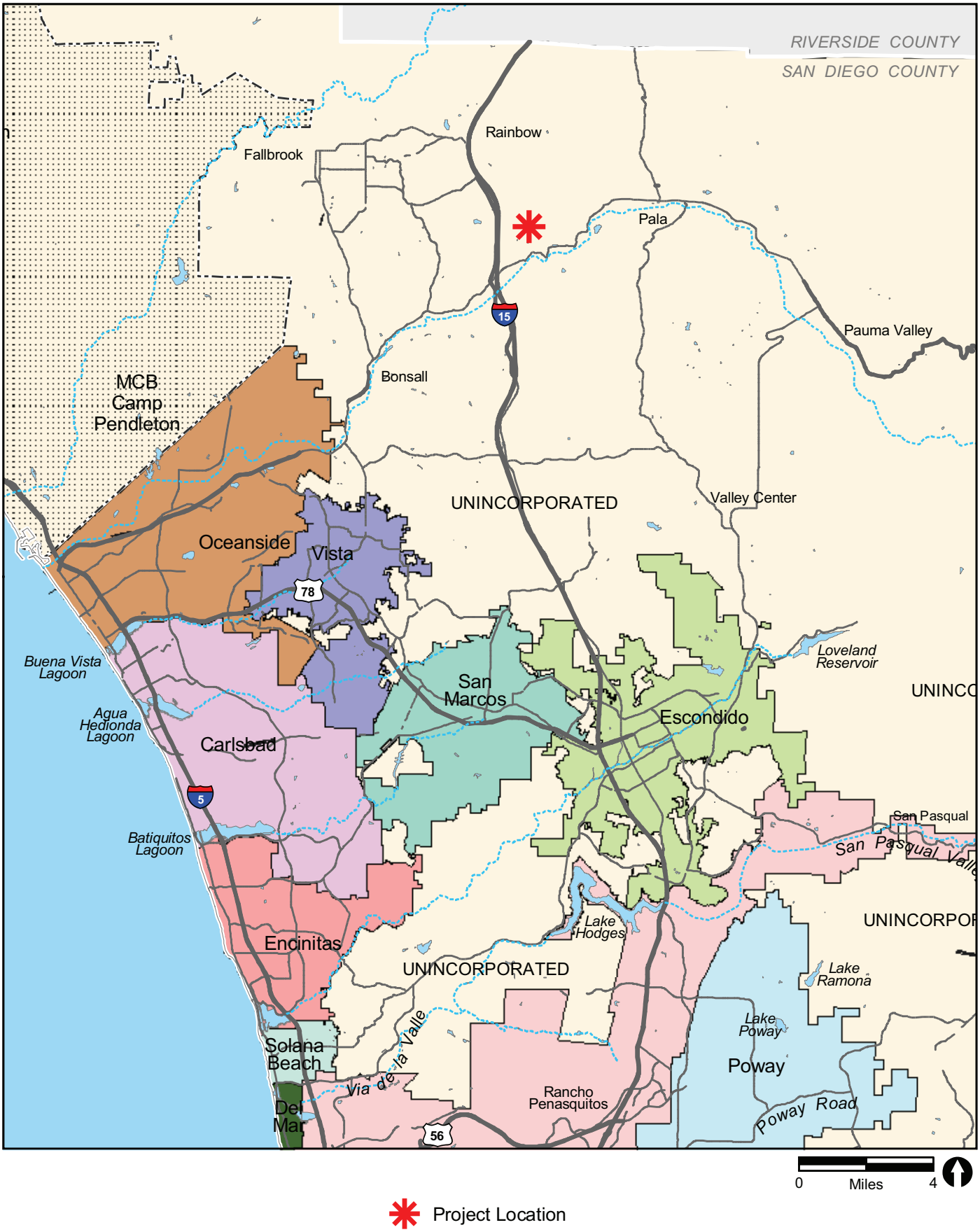


FIGURE 1-15

Regional Location

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Map Source: USGS 7.5 minute topographic map series, BONSALL quadrangle

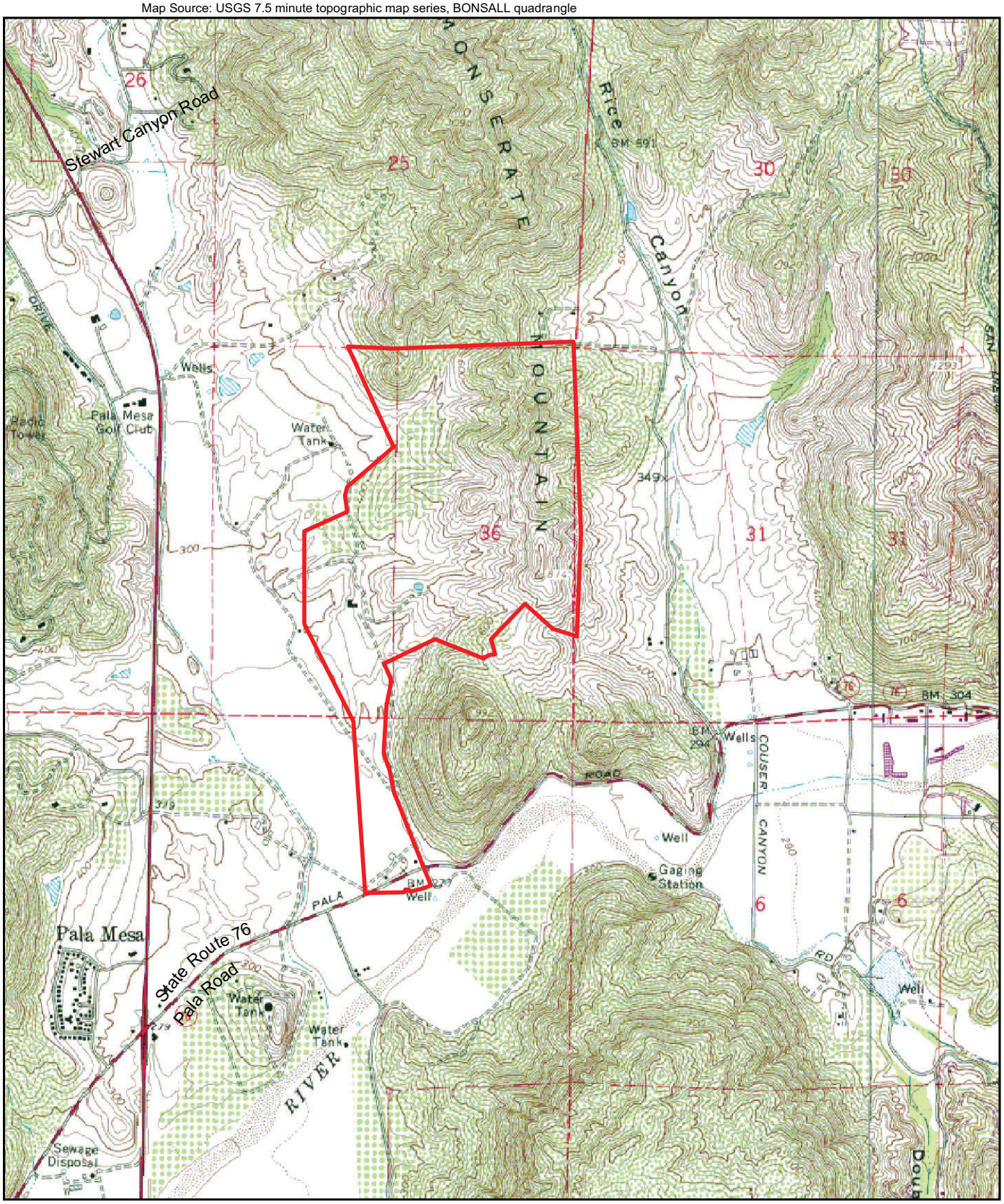


FIGURE 1-16

Project Location on USGS Map

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Image source: Copyright 2004 AirPhotoUSA, LLC, All Rights Reserved (flown April 2004)



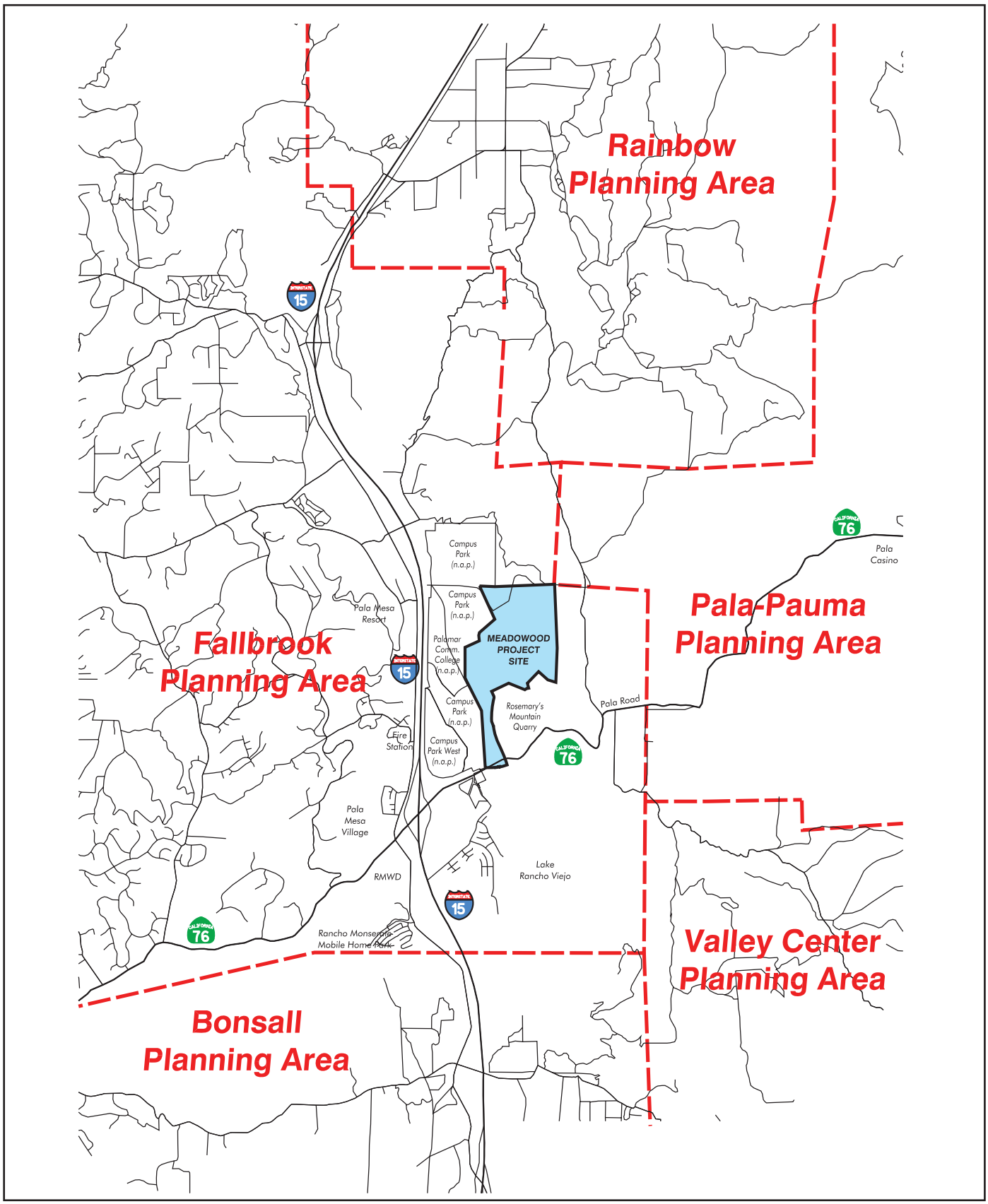
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FIGURE 1-17

Project Location and Surrounding Area

Map Source: Rick Engineering Company, May 2009



NO SCALE

FIGURE 1-18
Project Vicinity

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Map Source: LOS Engineering, Inc., 2008

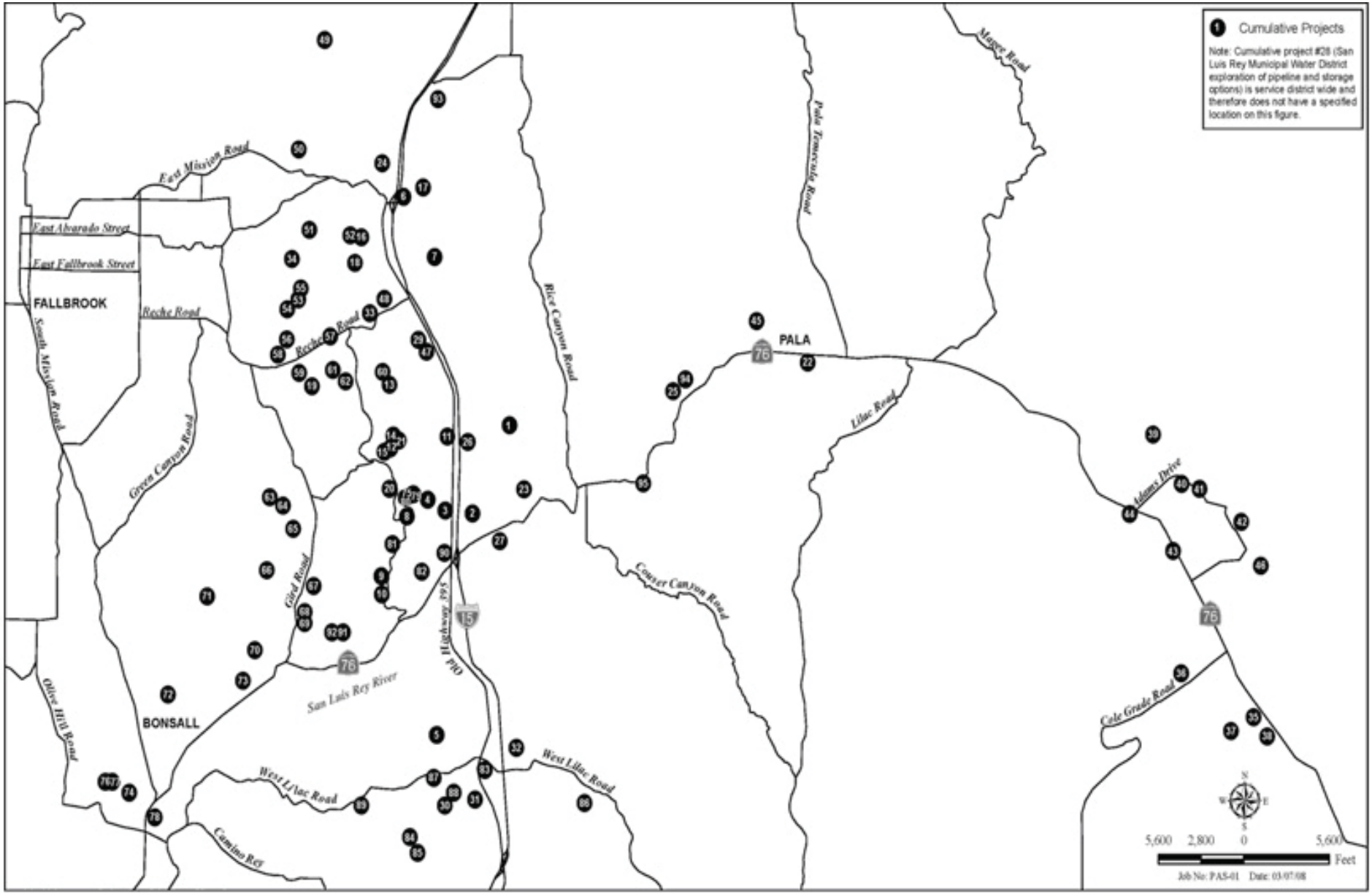


FIGURE 1-19
Cumulative Projects

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TABLE 1-3
WATER FACILITY COMPONENTS INVENTORY

Aqueduct Connection & Flow Control Facility	The connection will be to the Second (western) aqueduct system of the San Diego County Water Authority, along the Northern (Reche Road) alignment. This alignment is preferred based on capacity availability in the Second Aqueduct and based on right-of-way availability for the pipeline.
Facility Description	• Construct new pipeline connection to existing aqueduct pipeline. • Construct masonry block turnout/meter building approx. 20 ft. x 20 ft., 20 ft. high, and adjacent masonry block flow control valve building approx. 20 ft. x 20 ft., 20 ft. high. Final design may determine that the two buildings can be combined into one structure approximately 20 ft. x 40 ft., 18 ft. high. • The facilities will be sized for a flow capacity of approximately 2.5 cubic feet per second, which is equal to that required to serve the Proposed Project during peak summer conditions.
Footprints/ land acquisition	Total land area required: approx. 0.25 acre. Land Acquisition: Selected sites would be purchased from existing private property owners.
Pipelines	Construct one water transmission pipeline approx. 22,000 feet in length from Second Aqueduct to the Proposed Project tanks, via Reche Road.
Facility Description	Pipeline Material: PVC or ductile iron. Pipeline Diameter: Sized at approximately 12-inches, consistent with that required to serve the Proposed Project. Construction Method: Pipes will be placed in excavated trenches in existing and planned roadways.
Footprints/ land acquisition	Trench Dimensions: approx. 5 feet wide and 5 to 6 feet deep. Total construction zone width: approx 25. Land Acquisition. All of the other pipeline segments off-site of the Property are in existing public roadways and will not require any land acquisition. The under-crossing at I-15 will require an encroachment permit from Caltrans.
Storage Tanks	Two tanks at 2.5 million gallons each, located on one site, with paved access road to site. These tanks are sized for the Proposed Project only and provide approximately 10 average days of storage capacity for service to the Project Site.
Facility Description	Tank Material: Steel Tank Dimensions: Approx 118 feet in diameter and 32 feet high (each) Earthwork: Site grading for the tanks will entail approximately 100,000 cubic yards of excavation, including approximately 70,000 cubic yards of excavation requiring blasting. Excess material will be used as construction fill for the development. Visual Screening: Foundation excavation will leave a natural earthen berm, which will partially shield the view of the tanks from the I-15 corridor. Access Road: Primary construction and maintenance access will be via the existing ridge-top farming road and 20 foot access easement from end of cul-de-sac.

TABLE 1-3
WATER FACILITY COMPONENTS INVENTORY
(CONTINUED)

Footprints/ land acquisition	Tank Site Footprint: Approximately 2.5 acres, inclusive of a 3-foot construction buffer around the entire perimeter. Access Road Footprint: The existing ridge-top farming road will be improved between the existing paved Pala Mesa Heights Drive and the tank site, a distance of approximately 4,000 ft. The road will be graded within a 30 foot wide easement and paved to a width of 16 feet. Total road easement is approximately 3 acres. Land Acquisition: The tank sites and most of the new sections of access road are within the Project Site. The northernmost section of access road just south of the connection to Pala Mesa Heights Drive may require an expansion of the existing Proposed Project access easement.
Distribution/Other	Distribution Pipelines: Potable water distribution pipelines will be constructed mostly within the Proposed Project development road network along with other underground facilities. The only distribution pipelines not within the road network are the initial pipeline reaches leading from the tank site to the development. Other Facilities: Pressure reducing stations will be located in vaults within or adjacent to the Project Site road network.

TABLE 1-4a
WASTEWATER FACILITIES COMPONENTS INVENTORY

	Treatment plant located within the Meadowood development. Facilities includes collection infrastructure, WWTP, recycled water infrastructure and wet weather ponds.
Collection Infrastructure	Pipelines: Wastewater collected through on-site gravity mains and transferred via 10-inch and 12-inch gravity trunk lines. Lift Station: The belowground lift station will consist of a 12-foot diameter concrete wet well with two submersible pumps operating in duty/standby mode. The pumps will transfer wastewater through an 8-inch forcemain to the preliminary treatment building at the WWTP. Materials: All gravity pipe and forcemains will be polyvinyl chloride (PVC). Capacity: Each pump will be capable of pumping the peak wastewater flow of approximately 400 gallons per minute (gpm).
On-site WWTP	Facility Description: Influent wastewater pumped from the inlet lift station to the preliminary treatment building will pass through screens specifically designed for compatibility with the secondary treatment system to remove coarse materials and debris. Secondary, treatment of wastewater will be accomplished within partially belowground concrete aeration basins. Total land area required: Approximately one acre – located within the Project Site. Land Acquisition: Project applicant controls the site.
Recycled Water Component	Facility Description: The recycled water pump station will be constructed at the WWTP site to convey recycled water to the recycled water tank located on the eastern portion of the Meadowood development. The pump station will be housed in an underground concrete structure. Additional details in Table 1-4a.
On-site Wet Weather Ponds	Facility Description: Proposed Project will use recycled water for irrigation purposes within the project site. During certain times of the year, wet weather ponds would be necessary to hold excess treated water. Wet Weather Ponds: All ponds will comply with Regional Water Quality Control Board requirements and will be surrounded by earthen berms designed to withstand significant erosion and seismic activity. The bottom of the ponds would be raised to an elevation of approximately 276 ft to accommodate proper hydraulic and grading conditions. Total Land Area required: approximately one acre; located within the Project Site. Land Acquisition: Project applicant controls the site.

TABLE 1-4b
RECYCLED WATER FACILITY COMPONENTS INVENTORY

Conveyance Pump Station	Pump station to lift recycled water from the wastewater treatment plant site to a recycled water storage tank.
Facility Description	Pump Station: Integrated into water recycling plant site.
Footprints/ land acquisition	Total land area required: Part of water recycling plant site. Land Acquisition: Part of water recycling plant site.
Conveyance Pipeline	One pipeline approx. 8,000 feet in length from the wastewater treatment plant site to the storage tank site.
Facility Description	Pipeline Material: PVC or ductile iron Pipeline Diameter: approximately 6 inches, sized for Proposed Project. Construction Method: Pipes will be placed in excavated trenches in existing and planned roadways.
Footprints/ land acquisition	Trench Dimensions: approx. 3 to 4 feet wide and 4 to 5 feet deep. Total construction zone width: approx 25 feet. Land Acquisition: All of the identified pipeline segments off-site of the Property are within existing public roadways and will not require any land acquisition.
Storage Tank	One tank at approx. 0.65 million gallons, located on the same site as the potable water storage tanks
Facility Description	Tank Material: Welded Steel Tank Dimensions: Approx 70 feet in diameter and 24 feet high Earthwork: Included in site development for potable water storage tanks Visual Screening: Foundation excavation will leave a natural earthen berm, which will partially shield the view of the tank from the I-15 corridor. Access Road: Same as for the potable water storage tanks.
Footprints/ land acquisition	Tank Site Footprint: Included in the footprint for the potable water storage tanks. Land Acquisition: None required. The tank site is within the Property.
Distribution/Other	Distribution Pipelines: Recycled water distribution pipelines will be constructed mostly within the Property's road network along with other underground facilities. These pipes will be 4 to 6-inch diameter PVC. The only distribution pipelines not within the road network are the initial pipeline reaches leading from the tank site to the development. Other Facilities: Pressure reducing valves will be located in vaults within or adjacent to the Property's road network. An irrigation booster pump station may be required to serve retained groves.

TABLE 1-5
SUMMARY OF ADDITIONAL PROJECT DESIGN CONSIDERATIONS

Subchapter/Issue	Environmental Design Consideration
2.1 Aesthetics	To reduce aesthetics impacts, the Proposed Project includes design guidelines contained within the Community Design Element of the Meadowood Specific Plan Amendment. The design guidelines provide detailed site planning, architecture, landscape and grading measures for all residential, roadways and recreational uses. Implementation of these design measures would ensure long-term application and continued conformance with other design guidelines including the Fallbrook Design Guidelines, I-15 Corridor Guidelines and Scenic Roadway preservation. The Community Design Element is included in its entirety in Appendix C-2.
2.2 Air Quality	To reduce potential nuisance impacts and to ensure compliance with SDAPCD rules and regulations, standard dust and emission control during grading operations would be implemented. The standard emissions control measures listed below are considered part of the project design: • All unpaved construction areas shall be sprinkled with water or other acceptable SDAPCD dust control agents at least twice daily and during dust-generating activities to reduce dust emissions. Additional watering or acceptable SDAPCD dust control agents shall be applied during dry weather or windy days until dust emissions are not visible. • Apply soil stabilizers to inactive areas. • A 15-mile-per-hour speed limit on unpaved surfaces shall be enforced. • On dry days, dirt and debris spilled onto paved surfaces shall be swept up immediately to reduce resuspension of particulate matter caused by vehicle movement. Approach routes to construction sites shall be cleaned daily of construction-related dirt in dry weather. Disturbed areas shall be hydroseeded, landscaped, or developed as quickly as possible and as directed by the County of San Diego and/or SDAPCD to reduce dust generation. • Disturbed areas shall be hydroseeded, landscaped, or developed as quickly as possible and as directed by the County and/or SDAPCD to reduce dust generation. To reduce potential impacts associated with operation related emissions from project generated traffic and on-site source emissions, the Proposed Project promotes walking, bicycle riding, or horseback riding as alternative forms of transportation to motorized vehicles by including the following features into the specific plan: • Complete sidewalk coverage in the project area • Street trees to provide shade throughout the project area • Internal trail system with connections to a regional system • Bike routes with paved shoulders to most major destinations • Mixed residential uses and routes that are visually interesting • Pedestrian and bicyclist safety through lighting, signalization and

TABLE 1-5
SUMMARY OF ADDITIONAL PROJECT DESIGN CONSIDERATIONS
(CONTINUED)

Subchapter/Issue	Environmental Design Consideration
	signage, bike lanes (as appropriate), and crosswalks • To reduce potential impacts associated with the generation of objectionable odors, the on-site WWTP includes the following design features: The preliminary treatment building, equalization basins, and solids dewatering facilities would be enclosed and the air would be conveyed to either wet scrubbers or activated carbon odor control units. • Odor control units would be designed to treat odorous air from within treatment structures so not to emit matter causing unpleasant odors which are perceptible by the average person at or beyond the lot line of the WWTP. • Odor treatment units would be required to provide a dilution ratio of one volume of odorous air to eight volumes of clean air. • Wastewater treatment processes such as aeration and disinfection basins that are not enclosed within buildings would be covered. To reduce potential impacts associated with global climate change, the Proposed Project includes the following design measures: *Vehicle Emissions* • Bike lanes and wide trails and pathways are designed throughout the subdivision to promote non-motorized transportation • Design of the Proposed Project encourages residents to walk and bike through their neighborhoods to other Planning Areas While the specific location of the transit node has not yet been identified, the Proposed Project shall be conditioned to participate, along with the other projects in the vicinity, in the contribution of funds for the acquisition, design, and construction of a future Transit Node *Electricity Generation* • Homes comply with the U.S. Environmental Protection Agency's Energy Star criteria, which results in homes that are at least 30% more energy efficient than required by Title 24. • Outdoor and indoor shaded areas have been implemented into the design of the multi-family planning areas to reduce energy use. • Minimization of site lighting to that necessary for security, safety, and identification. *Water Use* • The Proposed Project shall use either reclaimed water or groundwater to irrigate common areas and retained agricultural groves. • By utilizing the new stormwater regulations, more efficient irrigation will be used reducing the Proposed Project's water demand.

TABLE 1-5
SUMMARY OF ADDITIONAL PROJECT DESIGN CONSIDERATIONS
(CONTINUED)

Subchapter/Issue	Environmental Design Consideration
	• Installation of low water usage appliances. • The Proposed Project will be required to develop an off-set program in conjunction with annexation into SDCWA or MWD. The goal of these actions is to achieve a net zero project-wide water demand. *Solid Waste* • Meet or exceed the requirements of the County's Construction and Demolition Debris Ordinance (Sections 68.508 through 68.518 of the County Code of Regulatory Ordinances) that requires recycling of 90 percent of inert and 70 percent of other materials. • Recycling bins as well as trash bins will be provided to each resident. • The Proposed Project will conform to the applicable County recycling activities.
2.3 Traffic	To reduce potential traffic impacts: • The Proposed Project will prepare a Traffic Control Plan. This plan would be approved by the County Department of Public Works prior to the start of any clearing or grading activities, and would be implemented during construction of the Proposed Project. • Horse Ranch Creek Road has been designed per General Plan Update "Boulevard" standards.
3.1 Biological Resources	To reduce potential indirect effects of invasive plants on any biological resources, the landscape plant palette for the proposed slopes adjacent to natural areas will include only native and low-fuel plant species. No invasive (non-native weedy species) plants shall be introduced adjacent to natural open space. To reduce potential impacts associated with conformance with local ordinances and Natural Community Conservation Plans the Proposed Project is consistent with the proposed subregional NCCP. Specifically, the Proposed Project is designed to conform to the proposed "take authorized" and "preserve" areas developed for the proposed North County MSCP. To reduce impacts to regional wildlife movement, the Proposed Project has been designed to avoid the three mapped wildlife movement corridors in the area, as follows: • Local wildlife and migratory bird movement within the island of riparian habitat along Horse Ranch Creek will be avoided by constructing Pala Mesa Road south of the main drainage. Vegetation disturbed by excavation for Pala Mesa Road will be revegetated. In addition, the proposed Pala Mesa Road will use an existing bridge for Pankey Road to continue to allow access for small wildlife to the small patch of riparian vegetation to the southwest.

TABLE 1-5
SUMMARY OF ADDITIONAL PROJECT DESIGN CONSIDERATIONS
(CONTINUED)

Subchapter/Issue	Environmental Design Consideration
	• The proposed water tank location has been designed around the existing water tank to reduce any new visual or physical barriers to wildlife movement along corridor 1. Similarly, the access road to the water tanks will follow an existing road. • The development area on the Project Site have been designed to avoid corridor 1 by limiting development to the lower elevations consisting of mostly agriculture vegetation and leaving the natural vegetation on the ridge intact. To reduce impacts to the existing off-site wetland area located on the Campus Park project site, west of the Proposed Project, an on-site 100' wetland buffer shall be dedicated along the riparian woodland west of the southwestern boundary of the Project Site. To reduce impacts to wildlife habitat, all trails in the open space preserve shall be located within existing trails/dirt roads. Any existing trails/dirt roads not included in the proposed trail system shall be closed and restored to natural habitat. To prevent bullfrog use of the water storage and detention basins associated with the wastewater treatment plant, an exclusion fence shall be installed around the perimeter. The fence will have small diameter holes of suitable size to prevent bullfrogs from passing through. The basins will be checked periodically during the focused monitoring for exotic species. If bullfrogs are observed in the basins, they will be removed. Control and eradication efforts shall be implemented at the most appropriate times of year, usually after heavy rains when the basins will be inundated and will reflect current field conditions and observations regarding the bullfrogs. The County Department of Parks and Recreation as well as the DEH will be contacted to determine the need and manner of exotic species eradication efforts.
3.2 Agricultural Resources	To reduce potential impacts from the location of agricultural uses adjacent to residential development, the Proposed Project shall distribute disclosure statements shall in sales documentation for all proposed residential units. The statements shall notify potential owners that the adjacent properties could be used for agricultural operations such as farming and/or cattle ranching and that there could be associated issues such as odors, noise, and vectors. To reduce potential impacts associated with land use conflicts the Proposed Project includes agricultural buffers separating on-site structures and off-site agricultural uses. This buffer is comprised of the 49.3-acre agricultural open space and 122.4 acres of natural open space, which would be a minimum of 1,000 feet in width and up to approximately 2,500 feet at its widest part. The distance between the on-site residential uses and off-site agricultural operations would be adequate to prevent incompatibility. Additionally, a landscape buffer between the agricultural open space and the on-site residential areas shall be implemented to provide additional buffering. The landscaped buffer would be a 100-foot-wide area.
3.3 Geology and Soils	To reduce the risk of exposure of people or structures to geologic hazards:

TABLE 1-5
SUMMARY OF ADDITIONAL PROJECT DESIGN CONSIDERATIONS
(CONTINUED)

Subchapter/Issue	Environmental Design Consideration
	• The project design shall address seismic and geologic hazards through conformance with the UBC and the County Zoning Ordinance. • The project design will comply with all recommendations found in section 7 of the geotechnical report. To reduce the potential for rockfall from Rosemary's Mountain: • The project design incorporates standard design measures including open space buffers and tree plantings. To reduce the potential for erosion: • The project design will include erosion control measures during construction and a landscaping plan that comply with current San Diego County and Fallbrook community rules and regulations to prevent soil erosion on- and off-site. To reduce hazards associated with a project located on expansive soils: • The project will comply with the improvement requirements identified in the 1997 Uniform Building Code, Division III – Design Standard for Design of Slab-On-Ground Foundations to Resist the Effects of Expansive Soils and Compressible Soils. Complete removal and recompaction of the compressible deposits, which are found in several locations across the site, will be required in order to support structural improvements. Remedial grading recommendations (Geotechnical Report; Section 7) are provided for areas where groundwater is encountered. To reduce the potential for hazards associated with cut and fill slopes: • Slopes shall be constructed at inclinations no steeper than 2:1. Cut or fill slopes comprised of granular soils should be stable up to heights of approximately 50 feet. Slope stability analyses were based on assumed direct shear strength parameters and are considered conservative. As such, the analyses indicate factors of safety in excess of 1.5 for both deep seated and surficial stability. • Cut slopes shall be observed during grading by an engineering geologist to observe the exposed slope face to assess if adverse geologic conditions exist. Additional remedial grading may be recommended at that time. • The outer 15 feet of fill slopes should be composed of properly compacted granular "soil" fill to reduce the potential for surface sloughing. • All fill slopes shall be overbuilt at least 3 feet horizontally, and cut to the design finish grade. As an alternative, fill slopes may be compacted by backrolling at vertical intervals not to exceed 4 feet and then trackwalking with a D-8 bulldozer, or equivalent, such that the soils are uniformly compacted to at least 90 percent relative compaction to the face of the finish slope. • All slopes shall be planted, drained, and properly maintained to reduce erosion.

TABLE 1-5
SUMMARY OF ADDITIONAL PROJECT DESIGN CONSIDERATIONS
(CONTINUED)

Subchapter/Issue	Environmental Design Consideration
	To reduce the potential for adverse impacts associated with seepage and perched water: • Subdrains are recommended to collect the perched water that migrates along the contact between natural ground and fill surfaces. The subdrain outlet points shall be located according to the recommendations of the Geotechnical Report. • The lower 20 feet of the subdrains shall consist of non-perforated PVC pipe. The perforated/non-perforated joint shall have a concrete cutoff wall built at locations indicated by the Geotechnical Report. The subdrains shall outlet at the toe of fill slopes or connected to the storm drain system. Subdrains that outlet at the toe of slopes or onto surface grades shall be provided with a concrete outlet headwall at the outlet point. • Final grading plans shall show locations of all proposed subdrains. Upon completion of remedial excavations and subdrain installation, the project engineer shall survey drain locations and prepare an "as built" map depicting surveyed locations and elevations of the drainpipes.
3.5 Noise	To reduce potential impacts associated with neighboring Rosemary's Mountain Rock Quarry, the Proposed Project will provide a notice prior to sale of all lots within the 50 dB(A) $L_{eq(1)}$ contour of the quarry stating the following: This property is located adjacent to Rosemary's Mountain Rock Quarry. Noise levels due to operations at the Quarry are projected to exceed 50 decibels one-hour Leq at this property, but will not exceed 60 decibels one-hour Leq.
3.6 Hazards	To reduce potential impacts associated with interference with Emergency Air Support, the Proposed Project is required to implement measures contained in the Community Design Guidelines of the Meadowood Specific Plan Amendment which includes 35-foot height limitation on all structures. To reduce potential significant hazard to the public or the environment as a result of existing agricultural uses, the Proposed Project is required to remove and dispose of all above ground storage tanks according to applicable regulations prior to development. To reduce potential significant impacts associated with the 49.3 acres of retained groves, the Proposed Project includes the requirement that all applicable pesticide use permits are obtained from the County of San Diego Department of Agriculture Weights and Measures and that applicable permit conditions are complied with for pesticide use on the agriculture open space areas. To reduce impacts associated with existing on-site septic systems and historic wells, the Proposed Project includes a design measure requiring the abandonment and removal of all on-site septic systems, as well as the locating and removal of the historic water well in accordance with all applicable regulations and under permit and approval from the County of San Diego Department of Health.

TABLE 1-5
SUMMARY OF ADDITIONAL PROJECT DESIGN CONSIDERATIONS
(CONTINUED)

Subchapter/Issue	Environmental Design Consideration
	To reduce fire hazards, the Proposed Project includes project design features including the creation of fuel modification zones, guidelines relating to the use of ignition resistant building materials, road requirements, placement and flow of fire hydrants, and the provision of emergency access. All project design measures relating to fire safety are detailed in the Fire Protection Plan included in Appendix K-2. To reduce impacts associated with vector breeding resulting from standing water in stormwater BMPs, the Proposed Project includes the following design measures: • Hydrodynamic Separators would be designed with the applicable measures to exclude vectors from enclosed sources of standing water in structural BMPs. • Detention Basins would be designed to completely drain in 24 to 72 hours in order to prevent basins from becoming sources for vectors.
4.2 Hydrology and Water Quality	To reduce impacts to water quality, the Proposed Project includes short-term (construction) and long-term erosion control measures to ensure that chemicals or compounds would not significantly contaminate surface waters to below standards as established by the RWQCB. All potential Site Design BMPs, Low Impact Development requirements, Source Control BMPs and Treatment Control BMPs are detailed in the SWMP included in Appendix M-1. • To reduce impacts associated with runoff and drainage, the Proposed Project design includes the implementation of seven detention basins and the energy dissipaters to manage the velocities of run-off exiting the Project Site. In addition, the hydromodification management component that is associated with the detention facilities would reduce the effect of the Proposed Project's changes to runoff characteristics. Implementation of these design measures would assure that post-development run-off does not exceed pre-development run-off. Details of the design measures are included in the Drainage and Hydromodification Studies, located in Appendices M-2 and M3, respectively.
4.3 Public Services	To reduce impacts to schools: • Prior to the issuance of building permits for the Proposed Project the developer will pay school impact fees pursuant to Government Code Section 65970 et seq. to Fallbrook Union High School District, Fallbrook Union Elementary School District, and Bonsall Union Elementary School District. To reduce impacts to fire services: • The Proposed Project will be improve Pala Mesa Drive from the existing bridge crossing I-15 to the project site via Street R, as well as a northward extension of Street D to Pala Mesa Heights Road. Additionally, fire access to Rice Canyon via a northeasterly extension of Street E is included in the Proposed Project's circulation plan

TABLE 1-5
SUMMARY OF ADDITIONAL PROJECT DESIGN CONSIDERATIONS
(CONTINUED)

Subchapter/Issue	Environmental Design Consideration
	• The Proposed Project includes fire protection measures as detailed in the Fire Protection Plan, included as Appendix K-2. To reduce impacts from solid waste: • The project will deposit waste at a permitted waste facility and therefore, will comply with Federal, State, and local statutes and regulations related to solid waste. • The Proposed Project will meet or exceed the requirements of the County's Construction and Demolition Debris Ordinance (Sections 68.508 through 68.518 of the County Code of Regulatory Ordinances) that requires recycling of 90 percent of inert and 70 percent of other materials. • Recycling bins as well as trash bins will be provided to each resident. • The Proposed Project will conform to the applicable County recycling activities.
4.6 Utilities	The Proposed Project will be conditioned to obtain water and wastewater services from a MWD, as determined by LAFCO. To reduce impacts associated with the extension of utilities to the Project Site, the Proposed Project includes the following design measures: • The Proposed Project shall use either reclaimed water or groundwater to irrigate common areas and retained agricultural groves. • By utilizing the new stormwater regulations, more efficient irrigation will be used; therefore, reducing the Proposed Project's water demand. • The Proposed Project shall install low water usage appliances. • The Proposed Project shall offset the remainder of its delivered water requirement by participating in an offset program with the SDCWA or MWD. The project will be required to develop an off-set program in conjunction with annexation into SDCWA or MWD. The Proposed Project shall provide net zero demand on SDCWA supplies, regardless of the existence of off-set programs. • The on-site WWTP shall be located a minimum of 250 feet from any residences.

TABLE 1-7
CUMULATIVE PROJECTS

Map Key #	Project	Project Description	Project Reference Numbers	A rea (acres)	Location
1	Campus Park	Mixed-use development, including: 529 single-family dwelling (SFR) units, 555 multi-family dwelling (MFR) units, a town center (retail) of 62,000 square feet (sf), an office building with 150,000 sf, a sports complex of 5.2 acres, and a small neighborhood park.	TM 5338 GPA 03-004	417	Just north of SR-76, 0.25 mile east of I-15
2	Campus Park West	Mixed-use development including approximately 355 MFR units, 400,000 sf Commercial, 50,000 sf Office Professional, 347,000 sf of Light Industrial, and possible Civic Uses..	TM 5424, S 05-014, SPA 05-001 GPA 05-003 REZ 05-005	118.5	Northeast quadrant of I-15 and SR-76
3	Pala Mesa Highlands	Maximum of 130 SFR. Density 1.6 DU/acre. Lot sizes vary from 5,500 sf to 23,500 sf, two parks totaling 4.3 acres, trails, 36.5 acres of open space. SPA to allow clustering.	TM 5187 RPL[11] SPA 99-005 MUP 99-020 REZ 99-020 MUP/REZ 04-024	84.6	West of Old Highway 395 between Pala Mesa Drive and Via Belamonte
4	Tedder TM	Split lot into 13 SFR lots, ranging in size from 1.0 to 6.43 acres net.	TM 4729 RPL[3] TE	29.5	South side of Pala Mesa Drive, west of I-15 and east of Daisy Lane
5	Hukari subdivision	Minor residential subdivision with road improvements. 4 SFR lots plus one remainder lot (3.4 to 7.7 net acres each).	TPM 20830	30	Northern terminus of Mountain View Road and West Lilac Road on west side of Bonsall
6	Fallbrook Ranch	11 SFR lots	TM 5532 S 07-012		East of Old Highway 395 and Sterling View Drive (at Mission Road), Fallbrook
7	Los Willows Inn and Spa	Add additional units to a Bed and Breakfast	MUP 03-127		532 Stewart Canyon Road
8	Reeve TPM	Minor residential subdivision. 3 SFR lots (2 acres minimum).	TPM 20411	8.8	2987 Sumac Road, Fallbrook
9	Evans TPM	Minor subdivision into 2 residential/agricultural parcels (2.00 and 2.10 acres). Private septic system.	TPM 20491	4.10	West side of Sage Road between Sumac Road and Pala Road, Fallbrook

TABLE 1-7
CUMULATIVE PROJECTS
(CONTINUED)

Map Key #	Project	Project Description	Project Reference Numbers	A rea (acres)	Location
10	Bridge Pac West I TPM	Minor residential subdivision. 4 SFR lots plus one remainder lot (2.04, 2.08, 2.12, 2.14 and remainder 7.08 net acres each).	TPM 20841	15.90	3321 Sage Road, Fallbrook
11	Pala Mesa Resort	Specific Plan Amendment for modification and construction of new recreation and resort-related facilities. Addition of 186 resort rooms and wedding facility. Expansion of resort by 6 acres.	SPA 03-005 R 00-000 MUP 00-000 P 74-120W[1] P 74-121M[10]; MUP 03-006; MUP 04-005	181.2	2001 Old Highway 395 at Tecalote Lane, north of SR 76 and immediately west of I-15, Fallbrook
12	Lung TPM	Minor residential subdivision. 2 SFR lots (6.7 and 4.0 acres)	TPM 20431 S 98-006	10.7	Citrus Drive and Calle Canonero, Fallbrook
13	Chipman TPM	Minor residential subdivision. 4 SFR lots plus one remainder lot, ranging from 2.13 to 2.85 net acres each and remainder 4.00 net acres. Septic system.	TPM 20440	13.54	East side of Citrus Lane between Peony Drive and Dos Ninos, Fallbrook
14	Bierman TPM	Minor residential subdivision. 4 SFR lots, ranging from 2.01 to 2.19 net acres each. Septic system.	TPM 20484	9.91	4065 Calle Canonero, Fallbrook, south of Vern Drive and west of Lorita Lane
15	Cooke Residence	4,723 s.f. SFR	S 04-026	N/A	3974 Citrus Drive between Wilt Road and Vern Drive
16	Treister TPM	Minor residential subdivision. 4 SFR lots plus one remainder lot.	TPM 20581	21.81	Donut-shaped parcel surrounding 401 Ranger Road, Fallbrook
17	Mission Ridge Road TPM	Minor residential subdivision. 4 SFR lots.	TPM 20793 03-02-068	19.55	235 Mission Ridge Road east of I-15 off Mission Road, Fallbrook
18	Rancho Alegre TPM	Part of 116-acre subdivision (33 lots). This project consists of 20 lots in the eastern portion of property and proposes a different street alignment, grading, and lot arrangement.	TM 5413	70	West side of Ranger Road approx. 0.4 mile north of Reche Road
19	Rarick TPM	Minor residential subdivision. 4 SFR lots (ranging from 2.02 to 2.25 acres each). Septic system.	TPM 20853	8.77	3261 Reche Road, Fallbrook

TABLE 1-7
CUMULATIVE PROJECTS
(CONTINUED)

Map Key #	Project	Project Description	Project Reference Numbers	A rea (acres)	Location
20	Fernandez TPM	Minor residential subdivision. 4 SFR lots. Minimum lot size 2 acres. 2 existing SFR on-site.	TPM 20936	10.4	3838 Foxglove Lane, Fallbrook
21	Rabuchin TPM	Subdivision of 2 lots into 4 SFR lots. Existing SFR on site	TPM 20944	9.91	4065 Calle Canonero, Fallbrook
22	Pala Casino	187,300 s.f. casino, hotel, theater.	NA	TBD	Pala Road and Pala Mission Road
23	Rosemary's Mountain/Palomar Aggregates Quarry	Aggregate rock quarry and processing plants for concrete and asphalt. Approximately 22 million tons of rock would be mined over 20 years. Realignment of SR 76 from Project site west to I-15. Reclamation Plan to designate lower portion of site as water storage reservoir after completion of mining activities.	MUP 87-021 RPL[2] REZ P87-001 RPL[2]	96.4	North side of SR 76, 1.25 miles east of I-15
24	Patapoff Minor Residential Subdivision	Subdivide property into four parcels of 4.3 acres, 4.2 acres, 9.6 acres, 8acres, and a 33-acre parcel	TPM 20542	59.1	Southern end of Rainbow Hills Road
25	Prominence at Pala	Subdivide the property into 30 SFR and two open space lots ranging in size from 4 to 96 acres	TM 5321	346.6	Pala Del Norte Road. 1/3 mile north of SR-76 and approximately two miles west of the Pala Indian Reservation
26	Palomar College North Education Center District Master Plan	New Community College campus to serve approximately 12,000 students, to include classroom and administration buildings, parking, open space, athletic fields, and off-site road, water and sewer improvements.	NA	85	East side of I-15 between Pankey Road and Pala Mesa Heights Drive
27	Caltrans Realignment of SR-76	Realignment and widening of roadway, improvements to northbound I-15 on- and off-ramps.	NA	NA	From I-15 to west of Rice Canyon Road
28	San Luis Rey Municipal Water District (SLRMWD) Water, Wastewater and Recycled Water Master Plan	Exploration of pipeline and water storage options.	NA	Over 3,000	SLRMWD service area and vicinity, north and south of SR-76 between I-15 and Pala Temecula Road
29		39 condo units	TM 5231	30.48	Canonita Drive and Old Hwy 395, Fallbrook
30		8 SFR lots	TM 5276	12.8	Aqueduct Road and Via Urner, Bonsall

TABLE 1-7
CUMULATIVE PROJECTS
(CONTINUED)

Map Key #	Project	Project Description	Project Reference Numbers	A rea (acres)	Location
31		9 SFR lots	TM 5346	38.4	Old Hwy 395 and Via Urner, Bonsall
32	Marquart Ranch	9 SFR lots. Includes improvements to West Lilac Road and Mesa Lilac Road, and drainage improvements.	TM 5410	44.2	West Lilac Road and Mesa Lilac Road, Bonsall
33	Fallbrook Oaks	19 SFR lots	TM 5449	26	Reche Road and Ranger Road, Fallbrook
34	Ridge Creek Drive	14 SFR lots	TM 5469	30.4	Ridge Creek east of Live Oak Park Road and Ridge Drive, Fallbrook
35	Club Estates	31 SFR lots	TM 5499	48.3	SR 76 east of Cole Grade Road at Pauma Valley Drive
36	Oak Tree Ranch TM	24 SFR	TM 5540; MUP 07-007	9.95	15560 Spring Valley Road
37	Turnbull TM	17 lots	TM 5545	22.9	32979 Temet Drive
38	Wexler TPM	4 lots	TPM 20913	2.54	
39	Shadow Run Ranch	54 SFR lots and 2 open space lots. MUP filed concurrently for Planned Residential Development that would cluster residential development on minimum 2-acre lots.	TM 5223 MUP 00-030	263	Shadow Run Ranch, SR-76 and Adams Drive, Pala
40	Diana Acres	3 lots	TPM 20896		Adams Drive off SR-76, Pauma Valley
41	Hunter Subdivsion	3 lots	TPM 20804	7.5	15550 Adams Drive
42	Burge TPM	4 lots plus remainder	TPM 20538	12.58	34487 Citracado Drive, Pala
43	Pauma Valley Packing Company	Packing and processing	MUP 99-001	4.14	34188 Hampton Road
44	Shadow Run Ranch/ Schoepe-Pauma TM	13 lots	TM 5223; MUP 00-030	263.17	15040 Adams Drive
45	Warner Ranch	732 SFR lots, 168 condo units, community park, fire station lot	TM 5508	513	Pala-Pauma

TABLE 1-7
CUMULATIVE PROJECTS
(CONTINUED)

Map Key #	Project	Project Description	Project Reference Numbers	A rea (acres)	Location
46	Pauma Casino and Hotel	400 room hotel and 171,000 s.f. casino	CASINO		Approximately 11 miles east of I-15 along SR-76
47	De Jong/Pala Minor Subdivision	Minor residential subdivision. 3 SFR lots (1.03, 2.06 and 2.31 net acres each).	TPM 20451	5.62	Canonita Drive between I-15 and Tecalote Drive
48	Crossroads Investors Minor Subdivision	Minor residential subdivision. 4 SFR lots plus one remainder lot. Existing SFR and grove on site	TPM 20800	15.5	Ranger Road, Fallbrook
49	Chaffin/Red Mountain Ranch Subdivisions	Withdrawn TM 5217: Residential development with 29 SFR lots (2.28 to 18.33 acres) and 2 biological open space zones. TM 5225: 55 acres divided into 6 SFR lots (8.1 to 13.9 acres). TM 5227: 44.5 acres divided into 4 SFR lots (8.08 to 13.71 acres each).TM 5228: 19.1 acres divided into 2 lots (8.4 and 10.7 acres).	TM 5217/5225/5227/ 5228 MUP 00-027	455.9	Rainbow Glen Road and Red Mountain Dam Road, Fallbrook
50	John Collins TPM	2 lots	TPM 20505	8.29	Margarita in Fallbrook
51	Brannon Trust TPM Remai	4+ lots	TPM 21085		411 Yucca Road, Fallbrook
52	Dien N Do TPM	4+ lots	TPM 20976		405 Ranger Road
53	Tim Rosa TPM	4 lots plus remainder	TPM 20373	13	2973 Los Alisos Drive
54	Leising TPM	4 lots	TPM 20427	10.83	1246 Via Vista
55	Atteberry TPM	3 lots	TPM 20434	9	1166 Sierra Bonita
56	Johnson TPM	2 lots	TPM 20980		3035 Trelawney Lane
57	Chipman TPM	4 lots plus remainder	TPM 20381	24.5	Camino Zasa, Fallbrook
58	American Lotus Bhuddist Association TPM	4 lots plus remainder lot	TPM 21047		Reche Road at Rabbit Hill, Fallbrook

TABLE 1-7
CUMULATIVE PROJECTS
(CONTINUED)

Map Key #	Project	Project Description	Project Reference Numbers	A rea (acres)	Location
59	Reche Road TM	12 SFR lots	TM 5547	33.5	3129 Reche Road, Bonsall
60	Palisades Estates	51 lots	TM 5158; RPL3	408.4	3880 Dos Niños Road/Elevado Road
61	Dion TPM and time extension	2 lots	TPM 19742	7.5	3562 Canonita Drive
62	Patricia Daniels TPM	4 lots plus remainder	TPM 20476	13.2	3609 Canonita Road, Fallbrook
63	Cameron Subdivision	Minor residential subdivision. 3 SFR lots (2.22, 2.44 and 6.37 acres each). Septic system.	TPM 20443	11.31	2644 Vista de Palomar, Fallbrook. North side of Vista de Palomar between Post Hill and Via Rancheros
64	Tesla Gray TPM	Minor residential subdivision. 4 SFR lots plus one remainder lot. Future development of 5 SFR	TPM 20473	28.91	East end of Vista de Palomar, and north end of Old Post Road, Fallbrook
65	Aspel TPM	Minor residential subdivision. 2 SFR lots (2.09 and 5.20 acres each).	TPM 20592	7.32	3107 Old Post Road, Fallbrook
66	James Patapoff TPM	Subdivision of 16.8 acres into 4 lots plus a remainder lot	TPM 20317	16.8	2639 Via Alicia, Fallbrook
67	Yew Tree Spring Water Corporation	3 residential lots	TPM 20503	7.48	3573 Diego Estates Drive, Fallbrook
68	Haugh, Granger TPM	4 lots	TPM 20610	12.94	Fallbrook
69	Brown, Lee & Karen, TPM	3 lots	TPM 20614; RPL1	6.46	3850 Gird Road
70	Pepper Drive TPM	4 residential lots	TPM 20648	1.39	3926 Flowerwood Lane
71	Surf Properties TM	15 lots	TM 4971	46.89	3545 Vista Corona
72	Brook Hills TM	35 lots	TM 4908	96.71	4061 La Cañada Road, Fallbrook
73	Latter-Day Saints/Via Monserate	17,000 sq. ft. church and meeting rooms	MUP 02-011	7.96	Fallbrook

TABLE 1-7
CUMULATIVE PROJECTS
(CONTINUED)

Map Key #	Project	Project Description	Project Reference Numbers	A rea (acres)	Location
74	Leeds and Strausss TM	17 SFR lots – TM time extension until 09/13/2009	TM 4976; RPL4	45.76	North side of Olive Hill Road, near intersection with SR-76, Bonsall
75	Murray Davidson	7 lots	TM 5398	4.28	3956 Pala Mesa Road, Bonsall
76	Shamrock Partners TPM	3 lots	TPM 20173	10	Shamrock Road, Bonsall
77	Crook TPM	5 lots	TPM 20851		32179 Shamrock Road
78	Tabata Bonsall TPM RPL1	4 lots	TPM 20729	33.75	5546 Mission Road
79	Berezousky TPM (311 Same as one in original latch)	Subdivision of 3.11 acre into 4 residential lots. Existing SFR on site	TPM 20874	3.11	4040 Pala Mesa Drive, Fallbrook
80	Murray Davidson TPM	Subdivision of 1 lot into 4 SFR lots plus a remainder lot	TPM 20932		3956 Pala Mesa Road, Fallbrook
81	Sumac TPM	4 lots	TPM 21076		3111 Sumac Road
82	Janikowski SFR	3,200 s.f. SFR	S 03-024	5.12	9686 Pala Road (SR 76), Fallbrook, on north side of SR 76
83	Kratochvid TPM; expired map	4 lots	TPM 19827	12.3	Old Highway 395
84	Kohl TPM	4 lots plus remainder	TPM 20319	9.71	7641 Mount Ararat Way, Bonsall
85	Woodhead TPM	4 lots plus remainder	TPM 20541	12.54	Mt. Ararat Way, Bonsall
86	Rockefeller TPM	2 lots	TPM 20596	5	9590 Lilac Way, VC
87	McNulty TPM	2 lots	TPM 20763	5.19	32171 Dos Niñas
88	Stehly Caminito Quieto TPM	4 lots	TPM 20799	11.69	32009 Caminito Quieto at West Lilac Road

TABLE 1-7
CUMULATIVE PROJECTS
(CONTINUED)

Map Key #	Project	Project Description	Project Reference Numbers	A rea (acres)	Location
89	Sanders TPM	4 lots plus remainder lot	TPM 20845		West Lilac Road, 1.25 miles west of Old Highway 395
90	Pala Shopping Center	Addition of 5 commercial buildings to an existing commercial site with grocery store.	S 02-061	3.88	On Old Highway 395 just northwest of the intersection of I-15 and SR 76
91	Monserate TM	7 SFR	TM 5489	24.6	3624 Monserate Hill Road
92	Dimitri, Diffendale, and Kirk TPM	4 lots	TPM 21075		Monserate Hill Road and Monserate Place
93	Madrigal TPM	3 lots	TPM 20994		1055 Rainbow Valley Boulevard near Old Hwy 395
94	Singh Power Plant	Power Generation facility	MUP 07-009	8.5	4 miles NE of I-15 on Pala Del Norte Road, north of SR 76
95	Gregory Landfill	Landfill site for solid waste	37-AA-0032	1,770	Approximately 3.5 miles east of I-15 on SR-76

CHAPTER 2.0 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

This chapter of the EIR provides a detailed discussion of those subject areas that would be significantly impacted by the project and for which feasible mitigation measures would not reduce the impacts to below a level of significance. Aesthetics, air quality, and traffic are the issues that would incur significant and unavoidable adverse impacts.

2.1 Aesthetics

A Visual Impact Assessment (2009) for the Proposed Project and off-site improvement areas is summarized below. This report is included as Appendix C-1 to this EIR.

2.1.1 Existing Conditions

Existing Regulations

The numerous regulations relating to scenic resources protection and aesthetic development of land within the County applicable to the Proposed Project are briefly described below. An analysis of the Proposed Project's consistency with these aesthetic regulatory plans and policies is provided in the following Section 2.1.3, Analysis of Project Effects.

California Scenic Highway Program

The purpose of the California Scenic Highway Program (California Streets and Highways Code, Section 260-283) is to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. The program defines the process for the designation of official scenic highways and includes a legislatively appointed body, the Departmental Transportation Advisory Committee (DTAC). The DTAC recommends program criteria, reviews applications, and advises the Director of the California Department of Transportation (Caltrans) to revoke scenic highways that are no longer in compliance with the program.

I-15 is classified as an "Eligible" California Scenic Highway from SR-76 north to SR-91 near the city of Corona. Since the Project Site is immediately north of SR-76 and east of I-15, it is located within the Scenic Highway corridor.

San Diego County General Plan

The San Diego County General Plan provides guidance for the preservation of aesthetic resources through its Scenic Highway Element, Open Space Element, and Community Plans. The Scenic Highway and Open Space Elements are important policies that specifically guide the protection of the County's aesthetic resources of scenic highways and open space, and are discussed under separate subheadings below. The community plans which are a part of the General Plan, include goals, policies, and recommendations to guide development of a particular region. As identified in Chapter 1, the Project Site lies within the Fallbrook CP area.

Fallbrook Community Plan and I-15 Corridor Subregional Plan

The Fallbrook CP identifies a variety of specific aesthetic planning considerations, including development guidelines to protect visual character and quality and to minimize adverse aesthetic affects. This includes a Community Beautification and Design Goal with multiple policies intent on encouraging "sensitive" designs focused on preservation of mature trees and significant landforms (Policy 1), signage complimenting aesthetic values (Policy 4), "village style" architecture (Policy 6), wise grading practices and revegetation of disturbed areas (Policy 8), and protection of ridgelines and steep slopes (Policy 9 and 10).

Additionally, the Fallbrook CP includes Circulation Element Goals and Policies focused on preservation of rural and agricultural character (Goal 4), maintenance of natural contours (Policy 4.1) and provisions of trail systems (Policy 8.2).

The CP was amended in 1988 to include the I-15 Corridor Subregional Plan (Corridor Plan) and Scenic Preservation Guidelines. The Project Site falls within the I-15 Corridor Subregional Plan scenic corridor viewshed, which extends to either side of I-15 at varying widths up to two miles. The plan area is divided into six segments along the corridor. The Project Site lies in Segment 4, which is approximately one-mile wide on the east side of I-15 and goes to the ridgeline of Monserate Mountain, just inside the eastern boundary of the Project Site.

The I-15 Corridor Scenic Preservation Guidelines apply to the unincorporated portion of the I-15 corridor which includes the Project Site. The purpose of the Guidelines is to (1) protect and enhance scenic resources, (2) establish standards to regulate visual quality, and (3) encourage scenic preservation consistent with the standards. The standards address site design measures and include: site planning, parking and circulation design, site lighting, landscape design, public utilities and safety, development standards for steep topography and natural features, as well as architectural design standards.

Appendix B of the Corridor Plan consists of the I-15/SR-76 MSP. The western vertical strip, comprising 92 acres of the Project Site, lies within the Corridor Plan and MSP areas (refer to Chapter 4.1.1).

San Diego County Scenic Highway Program

The San Diego County Scenic Highway Program establishes a scenic highway system priority list, which is included in the General Plan Scenic Highway Element, Part VI (described below). The goal of the Scenic Highway Program is to protect and enhance the county's "scenic, historic, and recreational resources" within the viewshed of all scenic highway corridors. Two officially designated state scenic highways exist in the County, but are not in proximity to the Project Site. The remainder of the routes in the Scenic Highway Program are listed as first, second, or third priority scenic routes. There are six first priority routes, sixteen second priority routes and thirty-eight third priority routes.

San Diego County General Plan, Scenic Highway Element, Part VI

The western edge of the Project Site lies approximately one-half mile east of I-15. This portion of I-15 north of SR-76 has been listed in the San Diego County Scenic Highway

Element as a Third Priority Scenic Route. Part VI of the Scenic Highway Element includes objectives to: (1) establish a comprehensive County Scenic Highway Program, (2) protect and enhance scenic resources within both rural and urban scenic highway corridors, (3) encourage and promote increased coordination and implementation of the program, and (4) increase public awareness and involvement in the program.

San Diego County General Plan, Open Space Element

The Open Space Element provides guidelines for the conservation, development, and utilization of natural resources, unique geologic features, agricultural resources, and cultural and biological resources.

San Diego County Zoning Ordinance, Scenic Area Regulations

The Scenic Area Regulations of the San Diego County Zoning Ordinance (Section 5900-5910) serve to regulate development in areas of high scenic value, to exclude incompatible uses and structures, and preserve and enhance the scenic resources present in adjacent areas. The regulations apply to areas of unique scenic value including, but not limited to, scenic highway corridors designated by the San Diego County General Plan and areas adjacent to significant recreational, historic, or scenic resources, including, but not limited to, federal and state parks. The designation for scenic areas is identified on a parcel-by-parcel basis by the special area designator “S”.

San Diego County Zoning Ordinance, Design Review Area Regulations

The San Diego County Zoning Ordinance includes provisions to ensure that future structures and development of a site will complement not only the site to be developed, but also the surrounding areas and existing development. The provisions require that a site plan be submitted for certain discretionary project applications within those areas having a “D” zoning designator, indicating the need for design review. The regulation requires that specific criteria be reviewed to achieve the objectives of the approving authority. These criteria include a review of building characteristics, building structure and placement, landscaping, roads, pedestrian walkways, parking and storage areas, grading, signs, and lighting. Applicable community planning or sponsor groups have an opportunity to review such site plans and to represent their recommendations.

Resource Protection Ordinance

As explained in Chapter 4.1.1, Land Use and Planning, the purpose of the RPO is to protect a variety of resources, including steep slopes and cultural resources. The RPO limits development on steep slopes through density restrictions on steep slope lands and through requirements for preservation of steep slope areas in dedicated open space easements. As shown in Figure 2.1-1, 186.9 acres of the Project Site are comprised of steep slopes (slopes with gradient equal to or in excess of 25 percent), 180.3 of which meet the steep slope criteria under the RPO.

The Hillside Development Policy (described below) preceded the RPO; however, the intent of both is the same. Because the RPO is stricter in its requirements for preservation of steep slopes, it has become the main planning tool for preservation of this resource.

San Diego County Light Pollution Code

The San Diego County Light Pollution Code (sections 59-101-59.113 of the San Diego County Zoning Ordinance) seeks to control undesirable light rays emitted into the night sky in order to reduce detrimental effects on astronomical research. The Ordinance designates the unincorporated portions of the County into two zones based on distances from both the Palomar Observatory and the Mount Laguna Observatory. Areas within 15 miles of either observatory are designated Zone A, while the remaining areas are designated Zone B. The Project Site is located more than 15 miles from Mts. Palomar and Laguna and is therefore within the Zone B.

Hillside Development Policy, I-73

The Hillside Development Policy was adopted by the County Board of Supervisors in 1979 to preserve aesthetic resources by encouraging the preservation of the existing natural terrain, established vegetation, and visually significant geologic features. To minimize the effects of disturbing natural terrain, the policy provides creative and flexible design guidelines for Hillside Developments to reduce the effects of disturbance of steep slopes. Specifically, the guidelines aim to "preserve, enhance or improve the physical features of the area consistent with providing building sites while at the same time optimizing the aesthetic quality of the final product."

Existing Visual Environment

The visual character and quality of the Project Site and surrounding area is described in detail in Appendix C-1 and summarized below.

A visual environment can generally be described by physical and perceptual quality factors. Physical factors are the physical pattern elements of which the landscape unit is built. It is the relationship of these elements that construct the visual character of a particular view. Physical pattern elements include form, line, color and texture. Distinctions in visual character are generally traced to four aspects of pattern character: dominance, scale, diversity, and continuity, as described below.

- Specific components in a landscape may be visually dominant because of position, extent, or contrast of basic pattern elements.
- Scale is the apparent size relationship between a landscape component and its surroundings; an object can be made to look smaller or larger in scale by manipulating its visual pattern elements.
- Visual diversity is a function of the number, variety, and intermixing of visual pattern elements.
- Continuity is the uninterrupted flow of pattern elements in a landscape and the maintenance of visual relationships between immediately connected or related landscape components.

The quality of a visual environment is determined by perception and is based upon a viewer's cognitive assimilation of landscape elements into a memorable landscape image, distinguishable from other visual environments within the region. Perceptual quality factors include vividness, intactness, and unity, as described below.

- Vividness is the visual power or memorability of landscape components as they combine in striking and distinctive visual patterns.
- Intactness is the visual integrity of the natural and man-built landscape and its freedom from encroaching elements.
- Unity is the visual coherence and compositional harmony of the landscape considered as a whole.

Areas with high visual quality are those where all three perceptual quality factors are high. Areas with moderate visual quality are those where one of these factors is low. Areas with low visual quality are those where two or more of these perceptual factors are low.

A visual environment's ability to absorb changes in visual character and quality constitutes its visual sensitivity. Areas with a high sensitivity to visual change are those that have distinctive pattern elements, are visually prominent, or contain a dominant visual character component, and have high visual quality. Areas with moderate sensitivity to visual change are those that contain several varying visual character pattern elements and have a moderate visual quality. Areas with low sensitivity to visual change are those that contain several varying visual character pattern elements but have a low visual quality.

Visual Character

The visual character of the Project Site is comprised of the following distinctive landscape components:

- Varied topography, from the flat, lowland areas of the western two-thirds to the steep slopes and undulating ridgeline east of Horse Ranch Creek to Monserate Mountain;
- Grasslands on the lowlands;
- Orange and avocado groves at the middle elevations;
- Expanses of natural open space up to the ridgeline of Monserate Mountain; and
- Rocky outcrop of Rosemary's Mountain, which lies south and adjacent to the Project Site.

The Project Site is framed by the summits of Monserate Mountain and Rosemary's Mountain, both of which lie off-site to the northeast and south, respectively. Rosemary's Mountain dominates the visual pattern of the visual environment (or viewshed) that includes the Project Site. Its rocky outcrops, large bulk and height, and steep slopes distinguish it from the gentler Monserate Mountain. The descending ridgeline of Monserate Mountain transects the northeastern portion of the Project Site, and creates a prominent backdrop for the groves that are nestled on the hillsides. A total of 48 percent of the Project Site, or about 187 acres, contains slopes in excess of 25 percent, 180.33 acres of which are RPO-classified (Figure 2.1-1).

The size relationship of the various Project Site landscape components is balanced. The color and texture of the Project Site move in and out of light and dark hues consistent with the vegetation. The vegetation on the hillside changes from pale grasslands and low native plant communities to dense, darker avocado groves on the

steep slopes descending into the more open, lighter, and regular pattern of the orange groves on the less steep slopes. Isolated instances of dark-canopied coastal live oaks also punctuate the ridgeline. This pattern and variation of vegetative elements provides visual diversity and continuity to the visual character of the Project Site.

Visual Quality

The summits of Rosemary's Mountain and Monserate Mountain frame the Project Site, creating a vivid impression. The open view of the hillside orchards, both orderly in the orange groves and unkempt in the avocado groves, creates the most lasting impression after the mountains that define the area. The natural and man-built elements of the landscape are highly integrated and coherent, creating a compositional harmony of the landscape as a whole. Because the on-site man-made structures are generally obscured from view by the vegetative elements, the integrity of the existing visual quality of the Project Site as a whole is high. The vegetation, both grasslands and agricultural groves, is in harmony with the natural vegetation, creating a high degree of unity within the Project Site.

The Visual Impact Assessment in Appendix C-1 contains a detailed assessment of the visual quality of the Project Site and identifies areas that share consistent visual characteristics (subsets of a viewshed). For each of these areas, Appendix C-1 provides a visual quality and sensitivity to change rating. To summarize, the Project Site contains areas of low to high visual quality and sensitivity to change. The upper ridgelines and lower riparian corridor are considered to have high visual quality and sensitivity to change, while the hillside and lower groves are considered to have moderate visual quality and sensitivity to change. The northern pasture, ranch house, and upper and lower meadows are considered to be of low visual quality (refer to Appendix C-1).

Public Viewshed

Appendix C-1 delimits a generalized viewshed, the surrounding geographic area from which the Project Site is likely to be seen. The Project Site viewshed is generally confined to the area within the ridgelines that surround the I-15 corridor and define the river valley (refer to Figure 6 of Appendix C-1). Within this viewshed are the existing residential areas west of I-15 and Old Highway 395, Lake Rancho Viejo subdivision south of the Project Site, and a cluster of homes in the hills north of the Project Site. Existing commercial development occurs in the vicinity of the I-15/SR-76 interchange, and public recreational trails exist in portions of Monserate Mountain east of the Project Site, along the San Luis Rey River south of the Project Site, and within the Engle Family Preserve west of I-15. In addition to residents and public trail users, motorists on public roadways (including I-15, Old Highway 395 and SR-76) have variable visibility of the Project Site, depending upon their location.

To assess the visibility of the Proposed Project from surrounding vantage points, several field surveys were conducted and Key Observation Points (KOPs) identified in the technical assessment (see Appendix C-1). The KOPs and photographic simulations are discussed further in Section 2.1.3, Analysis of Project Effects.

2.1.2 Guidelines for the Determination of Significance

For the purpose of this EIR, the basis for the determination of significance is the CEQA Guidelines Appendix G the County of San Diego Guidelines of Significance for Visual Resources, adopted July 30, 2007, and the County of San Diego Guidelines of Significance for Dark Skies and Glare, adopted July 30, 2007 (modified January 15, 2009). Specifically, Guidelines 1 and 2 are derived from the CEQA Guidelines Appendix G and are intended to support definition of whether the Proposed Project will have a significant impact on visual character and quality. Guideline 3 is based on these principles as the Scenic Highway Element and Fallbrook CP. Guidelines 4 and 5 rely on the lamp and shield requirements established in the San Diego County Light Pollution Code that have been determined to effectively reduce impacts on dark skies. Guideline 6 is taken from the San Diego Guidelines of Significance for Visual Resources and is intended to assure that the visual character and quality of communities are developed consistently with all applicable regulations.

A significant impact to visual resources would occur as a result of project implementation if:

1. The project would change the composition of the visual pattern or character of the visual environment, and the change would be incompatible with the existing visual character in terms of dominance, scale, diversity, and continuity.

2. The project would result in physical changes that would substantially degrade the quality of an identified visual resource, including but not limited to, unique topographic features, steep slope lands (as defined in the County's RPO), ridgelines, undisturbed native vegetation, surface waters and major drainages, public parks, or recreational areas.

3. The project would result in physical changes (i.e., land disturbing activities) to the visual environment that would demonstrably and adversely affect the viewshed of a designated scenic highway, scenic vista, or the I-15 Corridor Subregional Plan Area.

4. The project would install outdoor light fixtures that do not conform to the San Diego County Light Pollution Code (Sections 59.108-59.110) lamp type and shielding requirements and County Zoning Ordinance.

5. The project would install highly reflective building materials, including but not limited to reflective glass and high-gloss surface color in areas that will be visible along roadways, pedestrian walkways or in the line of sight of adjacent properties.

6. The project would not comply with applicable state or local goals, policies or requirements related to visual resources, including but not limited to the California Scenic Highway Program, San Diego County Scenic Highway Program, San Diego County General Plan, (Scenic Highway Element, Open Space Element), Fallbrook CP including the I-15 Corridor Subregional Plan and Scenic Preservation Guidelines, San Diego County Zoning Ordinance (Scenic Area and Design Review Area regulations), and the RPO and Hillside Development Policy.

2.1.3 Analysis of Project Effects and Determination as to Significance

Change in Visual Pattern or Character (Guideline 1)

A significant visual impact would occur if implementation of the Proposed Project would result in a change in the composition of the visual pattern or character of the visual environment, and the change would be incompatible with the existing visual character in terms of dominance, scale, diversity, and continuity. If the Proposed Project were to introduce features that would detract from or contrast with the existing visual pattern of the community (in terms of dominance, diversity, continuity), or with its important visual elements (such as color, massing, density, architectural style, building materials), visual impacts would be considered significant.

As described in the following paragraphs, the introduction of Proposed Project features into the existing landscape would change the line, form, pattern, and visual harmony of the existing setting. The visibility of large manufactured slopes, up to 80 feet in height, would contrast with the existing pattern elements. The repeating patterns, lack of diversity, scale, and density of the Proposed Project would contrast with the existing agricultural and rural setting.

These contrasts, however, would be reduced through the incorporation of site planning, architecture and landscape guidelines contained in the Meadowood Specific Plan Amendment, which would be required for site development, as described below.

Community Design

The Community Design Element of the Meadowood Specific Plan Amendment (Appendix C-2) contains policies for the protection of existing scenic resources, insurance of continued visual compatibility, and promotion of a cohesive community design theme for all common areas including streets, parks, entries, and open space areas. This Element of the Meadowood Specific Plan Amendment would promote the creation of a visually unified and attractive community that preserves and enhances the natural resources and maintains the unique visual features of this area. The Community Design Element addresses the following objectives:

- Preservation of the scenic qualities of the San Luis Rey River viewshed
- Preservation of the scenic qualities of the I-15 Corridor and the Fallbrook CP viewshed through application of the “B” Special Area Designator, related to potential visual impacts of the Proposed Project
- Design parameters for all common areas to establish project design consistency among the various planning areas (neighborhoods) of the Proposed Project, including streetscapes, entries and landscaping
- Design policies addressing a wide range of community design issues such as trails, roads, open space areas, signage and lighting

The Community Design Element includes Community Design Guidelines, which address visual quality aspects of the proposed common areas, include streetscape, entry treatments, pedestrian circulation, lighting, signs and landscaping. The guidelines, included in Section 8.6 of the Meadowood Specific Plan Amendment shall be considered

in the review of discretionary permits for development projects within the Project. In addition, Site Plan review will be required per the "B" Special Area Designator. The policies dictated by the Meadowood Specific Plan Amendment Community Design Element would be carried out through site planning, architecture, and landscape design.

Site Planning

The site design of the Proposed Project demonstrates sensitivity to both the natural setting and to the neighborhood context. Minimal ridge line development is proposed; existing groves and the trees along the primary and secondary roadways would be conserved; existing hiking and horse trails have been incorporated; and hillside development is limited with minimal development located in steep sloped areas of the Project Site. Additionally, 49.3 acres of the site would remain in groves, and the most visual single-family area would follow the natural topography with curved streets to minimize graded slopes.

Architecture

Architecture would be varied to prevent "sameness," but would be compatible throughout the community to establish a common identity. The buildings would be limited to two stories with a 35-foot maximum height limit. The roof lines, shadow patterns, and architectural detailing would be offset to provide relief and visual contrast. Roofs and facades would be earth-toned to blend with the existing environment.

Landscape Design

The landscape character of the area would be incorporated into the design of the Proposed Project. The conceptual landscape plan is shown on Figure 1-9 and the Community Design Element (Appendix C-2) includes detailed landscaping features to be incorporated into the Proposed Project. Extensive landscaping of foreground slopes and streetscapes would buffer the Project Site from view. Trees, shrubs, and plantings that are compatible to the rural and natural setting of Fallbrook's agricultural heritage would be used. Landscaping would be implemented on all of the graded slopes to minimize the impact of the development proposed on the hillsides. The signage proposed would be limited to the entrance to the site, and smaller entrance signage to each of the Planning Areas. Special landscape lighting would be limited to key areas and would be carefully controlled.

Implementation of the landscape plan would reduce visual impacts by screening parking lots, buildings, lighting fixtures, and manufactured slopes. In addition, the design guidelines designate that a maintenance easement be placed on the manufactured slopes within common area maintenance lots, visible from the I-15 and Old Highway 395 corridors. The HOA would have the responsibility to maintain the installed landscaping along these slopes.

Grading and Manufactured Slopes

At the lower elevations, substantial amounts of grading would be required to implement the Proposed Project. Implementation of the proposed grading plan (refer to Figure 1-10) would require approximately 2.4 million cubic yards of balanced cut and fill. This earthwork volume would include the creation of several manufactured slopes of

approximately 28 to 80 feet in height, as shown in Figure 2.1-2. While the upper, ungraded slopes of Monserate Mountain and the landform shapes of Monserate and Rosemary's Mountain summits will continue to dominate and set the character of the area, the height of the proposed manufactured slopes would exceed the current dominant on-site landform and could contrast with the existing visual character.

Figure 2.1-3 provides a key map showing the location of six representative cross sections that illustrate the proposed grading, including several of the manufactured slopes. The six cross sections are shown in Figures 2.1-4 through 2.1-6. Cross section A, drawn from SR-76, illustrates that a portion of the Project Site would need to be filled to raise the ground level above the Horse Ranch Creek floodplain. The realigned SR-76 would be similarly raised. Therefore, the grading required within this portion of the Project Site would not be highly visible. However, slopes of a maximum of 10 feet in height would remain visible. As part of the Proposed Project design, these slopes would be softened in appearance with naturalized plantings and screened by foreground canopies of grove trees. Grading visible from SR-76 along the southwestern edge of the Project Site would be screened by existing off-site riparian vegetation.

Cross section B illustrates another typical view from SR-76 looking northeast toward the Project Site (see Figure 2.1-4). As this figure illustrates, the southern multi-family residential area (PA-1) would be located on the flatter portion of the Project Site, behind and slightly above the adjoining riparian area. The dense foreground of riparian vegetation would combine with foreground topography to visually buffer this multi-family area from view.

Cross sections C and D illustrate grading profiles or typical views from I-15 where relatively unrestricted views of the Project Site would be available (see Figure 2.1-5). From these locations, there would be open views of the single-family development area trending upslope, as well as the multi-family area on the flatter portion east of Horse Ranch Creek Road and Street B. Views of the housing in the finger canyons would be blocked by existing vegetation located east of I-15. The current contiguous pattern of grove plantings would become interrupted by residential structures and graded slopes. Views along the I-15, however, would be intermittent, as there is existing vegetation and berming along the eastern edge of the freeway that interrupts the line of sight into the Project Site. The visibility of the Proposed Project elements would be further reduced through incorporation of architectural and landscaping features that would screen or soften their appearance. Additionally, the existing avocado groves upslope would be conserved.

While manufactured slopes would be visible from I-15, they would be planted with shrubs and trees that would provide visual screening. The landscaping required by the design guidelines would effectively reduce any potentially significant effect associated with these slopes, as it would introduce a softening vegetative element. The dominant background viewshed components, such as the steep upper slopes and prominent ridgelines, would not be affected by the Proposed Project; except for the inclusion of the water tanks and access road (see Guideline 2 discussion.)

Cross section E and F are shown in Figure 2.1-6. Cross section E represents a typical view that would be experienced from the adjacent Campus Park project to the west. Cross section F shows a view of the Project Site from the south, including the proposed WWTP. As shown, this facility would be approximately 10 feet above the grade of the

adjacent SR-76/Pala Road and would be visually screened by a six-foot noise barrier atop of a one-foot landscaped berm, trees with mature heights of 22 to 30 feet, and slope plantings. The PA-1 multi-family area, as shown in Cross section F, lies approximately 120 feet north and five feet below the adjoining WWTP. Slope trees and landscape plantings internal to PA-1, in conjunction with foreground plantings along SR-76 and view blocking riparian vegetation to the west, would provide a visual buffer to viewers traveling on SR-76.

Overall, implementation of the Community Design Guidelines of the Meadowood Specific Plan Amendment requires manufactured slopes to be graded to follow the contours of existing topography, thus softening their appearance by relating to the pattern character of the steep backdrop of the Monserate Mountains. Additionally, landscaping of the manufactured slopes will blend their appearance with the nearby groves and steep, vegetated natural hillsides allowing potential visual impacts to be **less than significant.**

Structures and Roadways

Initially, the repeating patterns, lack of diversity, scale and density of the Proposed Project would contrast with the existing agricultural and rural setting. These changes, however, would be minimized through incorporation of appropriate architecture and the Community Design Guidelines described above.

Visual simulations (Figures 2.1-20 through 2.1-27) provide a representation of how the structures will affect the visual character of the surrounding area. Actual homes will be varied in shape and height, thus the simulations provided represent 'worst-case' scenarios, depicting homes of similar shape and height. The roof lines, shadow patterns, and architectural detailing have been offset to provide relief and visual contrast. Roofs and facades will be earth-toned to blend with the existing environment. Through adherence to the Meadowood Specific Plan Amendment architecture and design guidelines, project impacts from structures and roadways would be **less than significant**.

Short-term Construction Impacts

Visible construction activities during Proposed Project build-out would contrast with existing conditions due to removal of existing vegetation and the introduction of new, visually dominant elements such as cut or fill slopes, construction fencing, construction equipment, and construction materials stockpiling and storage. Construction activities would disrupt the existing visual character of the project area, but would be typical of other developments of this size. Landscaping would be installed subsequent to each construction phase, lessening the adverse visual effects of grading activities and screening the construction. Although street trees and internal landscaping, when mature, would help buffer the homes from views to the Proposed Project, this would not be the case in the short-term. While temporary in nature and addressed through project design over the long-term, short-term construction related visual impacts would be **significant (A-1).**

In summary, the Proposed Project would relate in color, form, texture, and line to the existing visual environment through implementation of the Community Design Guidelines included in the Meadowood Specific Plan Amendment. Specifically, site planning,

architectural guidelines, and landscape plan, are proposed as part of the project. Although short-term construction impacts would be **significant**, the Proposed Project's introduction of manufactured slopes, housing, and streets into the existing composition of the visual environment would, in the long-term, not detract from or contrast with the existing visual character and impacts would be **less than significant**.

Change in Quality of Visual Resource (Guideline 2)

A significant visual impact would occur if the project would result in physical changes that would substantially degrade quality of an identified visual resource, including but not limited to, unique topographic features, steep slope lands (as defined the County's RPO), ridgelines, undisturbed native vegetation, surface waters and major drainages, public parks, or recreational areas.

Valued visual features identified within or near the Project Site include RPO-classified steep slopes, natural habitat and the I-15 designated scenic view corridor, which consists of the peaks, ridgelines and rock outcroppings of the Monserate Mountain range, Rosemary's Mountain, and Lancaster Mountain. (The effects of the Proposed Project on the I-15 scenic view corridor are addressed under Guideline 3, public views.)

RPO-classified steep slopes are located in the north and eastern area of the Project Site (refer to Figure 2.1-1). These slopes include undisturbed native vegetation and several prominent ridgelines. The Proposed Project would preserve the steep slopes and nearly all of the ridgelines; the exception being a non-visually prominent 574-foot section of ridgeline where proposed water tanks and associated access road would be located. The Proposed Project encroachment into RPO-classified steep slopes would be limited to 16.26 acres or nine percent of steep slopes contained on-site, as shown on Figure 2.1-7.

The proposed water tanks would occupy the saddle ridge between Rosemary's Mountain and the Monserate Mountains. While visible from directions directly west and northwest of the project, the water tanks would be partially buried below natural grade and would be screened by intervening topography (Rosemary's Mountain) to the south and existing and proposed vegetation to the north, wets and east. Refer to the cross sections in Figure 2.1-5 for an illustration of the proposed grading and site design of the water tanks. The water tanks would also be painted in earth tones to blend into their surroundings. Therefore, the construction of the water tanks would not significantly degrade the visual quality of these valued resources.

Likewise, the fire access road would be visible from several residences located east of the Proposed Project. The fire access road will vary in width from 20 feet to 24 feet and while the road would contrast with the existing patterns of vacant land, the background of mountains and hills would be retained. Therefore, changes to the views from the residential homes would not change the dominant backdrop of ridgelines, steep natural slopes and groves.

The Proposed Project includes conservation of 122.4 acres of existing natural habitat as permanent open space, as well as sensitive grading, clustering of homes, conservation of major drainages and 49.3 acres of the existing groves which all contribute to the retention of visual resources. Therefore, project impacts to the quality of the existing visual resources would be considered **less than significant**.

Change in Visual Environment of Scenic Highway or Scenic Vista (Guideline 3)

A significant visual impact would occur if the project would result in physical changes (i.e. land disturbing activities) to the visual environment that would demonstrably and adversely affect the viewshed of a designated scenic highway, scenic vista, or the I-15 Corridor Subregional Plan Area.

The Proposed Project has a high number of potential viewers within its viewshed, including motorists on public roadways, hikers on public trails, and area residents and merchants. The following discussion summarizes the results of a detailed assessment of the viewers and views from numerous locations within the viewshed. Figure 2.1-8 shows the locations of 21 KOPs, including the eight selected for photographic simulations of Proposed Project conditions. Views from these valued public KOPs are provided in Figures 2.1-9 through 2.1-19 and discussed below. Photographic simulations from eight of these KOPs are provided in Figures 2.1-20 through 2.1-27 and are discussed below.

Public Roadways

I-15 is a County designated Third Priority Scenic Route and a State "Eligible" Scenic Highway. The Project Site is also located within the I-15 Corridor Subregional Plan area. While the Project Site is not immediately adjacent to I-15 (it is located approximately 1,800 and 3,000 feet from the freeway), it does fall within the I-15 Corridor Plan viewshed. Eight KOPs were selected for view simulations. The KOPs depict views from several locations along the I-15 scenic view corridor showing the developed and landscaped Proposed Project relative to the existing conditions (see Figures 2.1-20 through 2.1-27).

Simulated viewpoints provided as Figures 2.1-20 and 2.1-21 look northeast toward the Project Site from locations east of I-15 near the SR-76 (Pala Road) intersection, approximately 3,200 feet from the Project Site's southern boundary. As these simulations demonstrate, extensive views of the Project Site are not available from this area due to view blocking vegetation and topography; however, portions of the Proposed Project's terraced single-family development would be visible, contrasting moderately with the retained grove vegetation. Views of the Proposed Project's southernmost single-family development area would be blocked by Rosemary's Mountain, visible in the middle-ground right. Views toward the Project Site's multi-family areas would be substantially screened from view by intervening tall riparian vegetation and topography. Landscaping proposed to screen the Proposed Project's on-site WWTP in the southernmost portion of the Project Site would also serve to screen views from this location. While the upper single-family residential development areas of the Proposed Project would be partially visible, along with tall manufactured slopes, the resulting contrast with existing conditions would be minimized through incorporation of the site planning, architectural, and landscape design guidelines.

Views toward the Project Site also are available from segments of Old Highway 395 generally located between SR-76 and Tecolote Road. Available views are similar to those from I-15, but would include more view-obstructing foreground elements such as the I-15 corridor, the I-15 concrete center barrier, vehicles on I-15, chain-link fences, and vegetation. In addition, similar to existing conditions for motorists on I-15 and SR-76, views of the Proposed Project would be peripheral, and the time a motorist would spend

looking directly at the Project Site would be short-term due to the vehicle's speed and the driver's focus on the road ahead. Simulated viewpoints provided as Figures 2.1-22 through 2.1-24 depict existing and Proposed Project views from different locations on Old Highway 395.

As reflected in Figures 2.1-22 through 2.1-24, the Proposed Project would primarily change the continuity of the existing groves by introducing horizontal patterns of residential development and associated grading, and by introducing suburban elements into a rural and open space landscape. Manufactured slopes, up to 80 feet in height, would also be introduced into the landscape by the Proposed Project.

As the view simulation from above the Lake Rancho Viejo subdivision provided in Figures 2.1-25 shows, the lower portions of the Proposed Project's housing in the finger canyons would be visible from this location, but the proposed housing at the upper elevations in the canyon would be blocked by the foreground topography of Rosemary's Mountain when approaching the Project Site from the south. Landform changes would not be dominant and the Proposed Project would appear consistent with the pattern character of other elements in view. The upper groves and steep natural slopes and ridgelines of the Project Site would remain intact. Contrast with the existing visual environment would be minimized through incorporation of the site planning, architectural, and landscape design guidelines. Public views from I-15 south of the Project Site would thus not be adversely affected.

As the simulations provided in Figures 2.1-26 and 27 depict, distant but observable changes to the existing visual environment would occur to views along I-15 for the southbound traveler. However, as illustrated in the photographic simulation of Proposed Project conditions, the proposed development would not substantially obstruct, interrupt, or detract from existing views because of the incorporation of site planning, architectural, and landscape design into the Proposed Project. As illustrated in the post-project photographic simulations, public views from I-15 north of the Project Site would not be adversely affected.

In summary, the Proposed Project has incorporated siting, architectural and landscaping features into its design that would minimize contrast with the existing visual environment and soften or screen dominant elements of the Proposed Project. Adverse impacts to public scenic views from areas roadways would, therefore, be lessened. Design features incorporated into the Proposed Project would preclude substantial obstruction, interruption, or detraction of public views from area roadways, including scenic views within the I-15 scenic view corridor, and impacts would be **less than significant**.

Public Trails

Monserate Mountain Trail, a public hiking trail, is located north and east of the Project Site (refer to Figure 2.1-3). Portions of this trail are included in the County's Trail Master Plan. Although existing views of the Project Site from the Monserate Mountain trail are generally blocked due to topography and grove vegetation, some portions of the trail offer expansive views of the project. In these cases, portions of the Project Site are visible in the middle ground beyond a foreground of native vegetation (see KOP 18, Figure 2.1-17). Views of I-15, other roadways, and existing residential areas are currently visible in background views from this trail.

As depicted in KOP 11, views of the Project Site from the Monserate Trail would be limited at times due to local landforms and view-blocking foreground vegetation. Natural vegetation in the immediate foreground would be retained with project implementation; however, grading associated with the proposed water tank access road improvements would be visible. Areas disturbed during grading would be revegetated with plantings similar to that which lie on adjacent natural slopes. Proposed single-family homes located west of the trail, the nearest one approximately 850 feet away, would be visually screened from the trail by natural vegetation and agricultural groves. A fire safety buffer consisting of low-fuel plantings and thinned native vegetation surrounding these homes would create a transition between the ornamental landscaping within the residential development and the natural vegetation on the slopes surrounding it. Landscaping planted on graded slopes, along roadways, and between residential structures would combine to screen the Proposed Project from view and provide context with the adjacent open space. As a result, project impacts to views from the Monserate Mountain Trail would be **less than significant**.

Another public hiking trail is located in the Fallbrook Land Conservancy's Engle Family Preserve west of I-15 south of Pala Mesa Road (refer to Figure 2.1-3). The Engle Preserve trail provides an extensive, elevated view of the San Luis Rey River Valley and the I-15 corridor, including the Project Site, Lake Rancho Viejo subdivision, and the Monserate Mountains and Rosemary's Mountain in the background (see KOP 19 in Figure 2.1-18). The quantity of viewers here is low due to it being relatively hard to find, and the sensitivity of the views from the trail is moderate to low due to the variety of man-made and natural elements that comprise its views.

Proposed single-family and multi-family residences, parks, roads, parking lots, and the school site would all be visible form the Engle Preserve Trail Street trees and proposed landscaping on the slopes and internal to the project would soften building masses and shield views of streets and parking lots and partially screen buildings. Existing vegetation on the surrounding hillsides and within Horse Ranch Creek would be preserved. Tall graded slopes would be visible, but their impact would be minimized through plantings intended to blend the appearance of the graded slopes with the nearby groves and natural hillsides. For these reasons, project impacts to views from the Engle Preserve Trail would be **less than significant**.

The planned future San Luis Rey River Trail is located south of the Project Site along the south side of the River (refer to Figure 2.1-3). The trail is roughly at grade with the southern portion of the Project Site and current views into the Project Site north of the River are obstructed by riparian vegetation along the River (see KOP 21 in Figure 2.1-19). Only the southernmost portion of the Project Site would be potentially visible. The portion of the Project Site that would be most visible from this trail would be a small portion of the terraced single-family residential area. This area would be extensively landscaped. Surrounding landforms would continue to provide a dominant background and the riparian groves would be retained as visible foreground elements, screening the residential area from view. As a result, impacts to views from the future San Luis Rey River Trail would be **less than significant.**

Light and Glare (Guidelines 4 and 5)

A significant impact would occur if the Proposed Project resulted in failure to conform to the San Diego County Light Pollution Code (Sections 59.108-59.110), proposed outdoor

lighting that conflicts with the light requirements in the County Zoning Ordinance, and/or installed highly reflective building materials. The County of San Diego Light Pollution Code (Division 9) applies to the Proposed Project, and restricts the permitted use of outdoor light fixtures emitting undesirable light into the night sky, which can have a detrimental effect on astronomical research. Light would be generated by the Proposed Project from residences, streetlights, and other exterior lighting during evening hours. The County Light Pollution Code SEC.59.104 defines these as Class II lighting. In addition, Class III lighting (outdoor lighting used for decoration; i.e. patio lights) would also be likely on the Project Site; however, Class III lighting used for holiday decoration is exempt from the Light Pollution Code.

The Project Site is located within Zone B, as it is outside of a 15-mile radius of the Palomar Observatory and the Mount Laguna Observatory. As required for Zone B, the Proposed Project will comply with the SEC.59.105 Requirement for Lamp Source and Shielding of the County Light Pollution Code by using fully shielded low-pressure sodium lamps or other lamp types of 4,050 lumens and below for outdoor lighting. The Proposed Project will also comply with the requirement of the County Light Pollution Code regarding installation of street lights and the guidelines on the use and materials associated with lighting provided in the Meadowood Specific Plan Amendment. By conforming to all regulations and plans, the Proposed Project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area, and would not have a detrimental effect on astronomical research. Likewise, lighting impacts from the Proposed Project would be **less than significant**.

Conformance with Visual Resources Regulations (Guideline 6)

A potentially significant impact would occur if the project does not conform to applicable state or local regulations related to visual resources.

As referenced in the Land Use and Planning discussion in this EIR, and detailed in Appendixes C and L, the Proposed Project would comply with all applicable visual goals and policies, including the applicable state and County Scenic Highway policies, the Fallbrook CP and Community Beautification and Design Goals, the I-15 Corridor Scenic Preservation Guidelines, and the County RPO requirements. Table 2.1-1 outlines the Proposed Project's conformance with the I-15 Corridor Scenic Preservation Guidelines. As seen in this table and summarized below, the Proposed Project is consistent with the guidelines. Policies of the Fallbrook CP Community Beautification and Design Goals require the Proposed Project to specifically address preservation of open space, mature trees and significant landforms; proposed signs and architectural styles; grading and slope revegetation; avoidance of steep slopes; the character and layout of roads and parking; and the inclusion of non-motorized trails. The Proposed Project is consistent with all applicable Beautification and Design goals as follows:

Policy 1, Preservation of Mature Trees and Significant Landforms: The Proposed Project would preserve 171.7 acres of existing vegetation in open space, removing no mature trees from biological open space lots. Extensive planting of trees would also occur along roadways and within development areas.

Policy 4, On- and Off-Site Signs: Signs within the Proposed Project would be designed to provide direction without being visually dominant. Style, materials and colors of signs

would reflect the Proposed Project's architecture, including the use of stone to conform to the natural visual elements of the surrounding hillsides.

Policy 6, "Village Style" Architecture: Architectural detailing included in the Proposed Project would be designed to minimize the appearance of building massing, thereby visually reducing the structural scale and creating a "village" feel. "Village style" features would include porches, columns, arcades, overhangs, seating areas and shade trees. Pedestrian connections throughout the Project Site would be encouraged and all streetscapes would be landscaped with sidewalks or trails.

Policy 8, Grading: The majority of the Proposed Project would be located on flatter areas of the Project Site. All manufactured slopes would be landscaped with ground cover, shrubs, and trees to provide visual screening.

Policy 9, Protection of Ridgelines: The Proposed Project will preserve almost all of the ridgelines within the Project Site, except for a non-visually prominent 574-foot section where the proposed water tanks and associated access road would be located.

Policy 10, Development of Steep Slopes: The I-15 Corridor Scenic Preservation Guidelines provide detailed standards for development within the corridor. They specifically require that hillside development be integrated with existing topography and landforms. Areas of steep topography, tree stands, hillside agriculture activity and rock outcroppings are to be respected and preserved.

The Proposed Project is also consistent with the preservation goals of the Circulation Element of the Fallbrook CP. Pursuant to Goal 4 as a whole, and specifically Policy 4.1, the Proposed Project includes landscaped parkways, sidewalks and/or rural, multi-use trails adjacent to Horse Ranch Creek Road. Additionally, the Horse Ranch Creek Road streetscape would include oaks and sycamore trees, as well as post-and-rail fencing to echo the rural history of the Project Site. Local roads throughout the Proposed Project would include large canopy shade trees, and plantings expressing seasonal beauty of the region. Additionally, existing groves would be conserved to provide seasonal interest along roadways.

The Proposed Project is also consistent with the steep slope section of the RPO. As shown in Figure 2.1-7, the Proposed Project's nine percent (approximately 16.26 acres) encroachment into RPO-classified steep slopes would be limited to small areas, primarily along the periphery of the development area in the northeast. This encroachment would not exceed the allowable limits of the RPO. Almost 100 percent of the ridgelines would be preserved. (This issue is discussed further under Guideline 2).

In conclusion, the Proposed Project would conform with all applicable state or local regulations related to visual resources. Therefore, impacts associated with non-compliance would be **less than significant.**

2.1.4 Cumulative Impact Analysis

Table 1-7 provides a complete list of cumulative projects within the vicinity of the Project Site. The specific cumulative study area for aesthetic impacts is comprised of the Project Site's viewshed. The viewshed is defined as that surrounding geographic area from which the Proposed Project is likely to be seen, based on topography and land use

patterns. The viewshed boundary for the Proposed Project was determined through the analysis of aerial photographs and topographic maps, and was field verified by Development Design Services & Graphic Access, Inc.

The Proposed Project viewshed is generally confined to the areas located within the ridgelines that surround the I-15 corridor and that define the San Luis Rey River valley. The ridge lines of the Monserate Mountains comprise the eastern boundary while the hillsides west of the I-15 delineate the western boundary. The southern and northern viewshed boundaries are defined by the peaks that spanned the West Lilac Road bridge to the south and the hills leading upwards to Mission Road to the north. Table 1-7 lists the projects used in assessing cumulative impacts. Of the 96 development projects listed in Table 1-7, 35 lie within the Proposed Project's viewshed and were included in the assessment of cumulative impacts. These projects are depicted graphically in Figure 2.1-28. The projects included within the Proposed Project's viewshed range in size from one to 1,244 residential dwelling units, as well as commercial and retail business, a college campus, hotel, offices, parks, and an elementary school. A cumulative aesthetic impact would result if the Proposed Project, along with projects within the cumulative study area, would result in an overall change in the visual character of the viewshed. Of the 35 projects analyzed, approximately 16 are minor residential subdivisions, proposing between one to seven new single-family residences, located generally west of the Project Site. These residential subdivisions would be located within existing neighborhoods at higher elevations than the Proposed Project and would visually blend into the existing character of the viewshed. Approximately six cumulative projects propose 10 to 51 single-family residences. A majority of these projects propose to create large lots with similar characteristics to the existing rural residential development in the area. Also located at higher elevations than the Proposed Project site, these projects would visually blend with surrounding land uses. Proposed condominium development near the existing Pala Mesa Resort would also not be highly visible in conjunction with the Proposed Project because existing trees and vegetation would screen views between the resort and the Project Site. Likewise, the proposed expansion of existing facilities at the Pala Mesa Resort and the addition of new hotel rooms would be screened from views due to existing and proposed new landscaping. The proposed addition of commercial buildings to an existing commercial site would not result in major visual changes because the visual elements of the area would remain the same.

Four of the projects within the study area are multiple-land-use developments. Three of these, Campus Park, Campus Park West and Palomar College, are located west of the Project Site, abutting or very close in proximity. The fourth, Pala Mesa Highlands, is located west of the Project Site. Together, these projects propose the development of 1,613 single and multi-family residences, commercial uses, offices, parks and a college site. These four project sites are comprised of more than 600 acres of currently undeveloped and agricultural lands. Development of these projects combined with the Proposed Project would be visible from area roadways and recreational trails. (Figure 2.1-28)

As a result of these cumulative projects the introduction of a large number of buildings and suburban elements into areas that are currently undeveloped or used for agriculture would create a major change in the existing visual character of the viewshed. This major physical change in composition would result in **significant cumulative impacts (A-2).** Additionally, some or all of the four projects stated above, along with the Proposed Project, would be visible from the proposed San Luis Rey River Trail, the Engle Family

Preserve, and Monserate Mountain Trail. The proposed cumulative projects would create major change to the views from the surrounding areas and the aforementioned trails resulting in a **significant cumulative impact (A-3**).

2.1.5 Mitigation Measures Proposed to Minimize the Significant Effects

The Proposed Project has been designed to include a number of important elements that would avoid a majority of the potential significant impacts to existing visual character and quality. The design measures include site planning, and architecture and landscape design guidelines which would help reduce aesthetic impacts created by the Proposed Project by screening parking lots, buildings, and lighting at Project buildout. Concerning construction impacts, grading will be completed in phases to restrict the amount of disturbed area at any one time. Installation of landscaping subsequent to each construction phase (hydroseeding) would also help minimize visual effects.

Nonetheless, the overall visual quality impact, on both a short-term and cumulative basis, would result from the transformation of a rural area with very little development. Landform will be altered, structures will be built, and new landscaping will be introduced into this area, creating a contrast with the existing visual character of the area. While the Proposed Project has incorporated features to enhance the visual quality of development, the only means of completely avoiding this impact is to retain the Project Site in its existing condition as addressed under the No Project (No Development) Alternative, Section 5.2.2, Aesthetics. Thus, there is no mitigation available to lessen short-term effects or cumulative effects, and impacts would remain **significant and unmitigable**.

2.1.6 Conclusion

Design measures have been incorporated into the Proposed Project that would reduce direct impacts to existing visual character and quality to below a level of significance. The design measures incorporated into the Proposed Project include the site planning, architecture and landscape design guidelines of the Meadowood Specific Plan Amendment. Implementation of these design measures would ensure long-term application and continuity of landscaping, particularly to manufactured slopes and require that all graded manufactured slopes be immediately landscaped for erosion control and visual screening subsequent to grading activity. Although construction and grading impacts would be short-term, a significant and unmitigated impact is identified; however, these impacts would be eliminated in the long-term through design measures including implementation of the Meadowood Specific Plan Amendment

Direct visual impacts to visual character, visual quality and visual environment, and public views pursuant to Guidelines of Significance 1, 2 and 3 would be less than significant.

Direct impacts to the existing visual environment resulting from light and glare from the Proposed Project are less than significant pursuant to Guidelines of Significance 4 and 5 and do not require mitigation beyond mandatory compliance with the San Diego County Light Pollution Code.

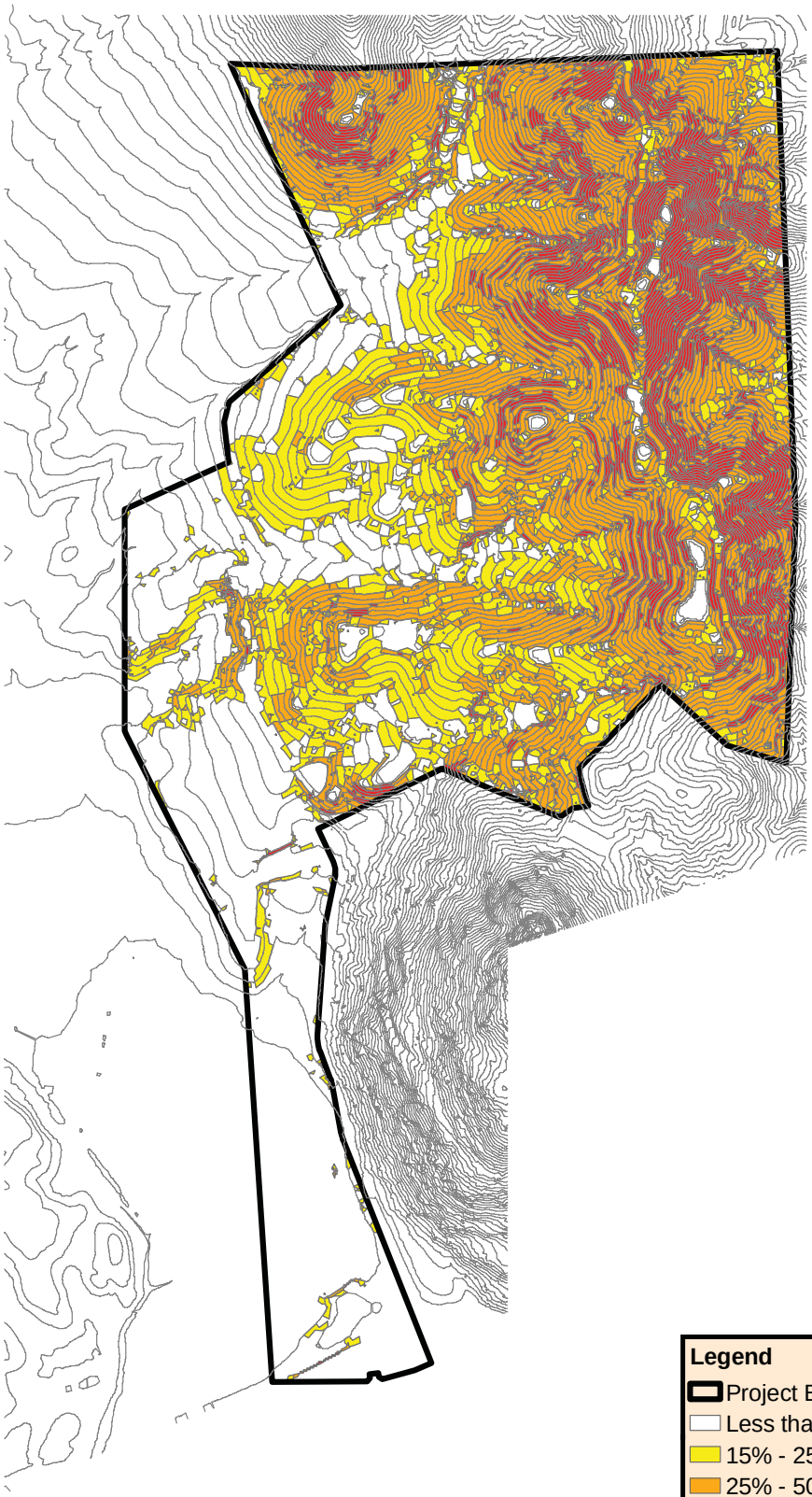
Direct project impacts associated with the attainment of goals and policies applicable to scenic resources, aesthetics and other visual design aspects, is considered to be less

than significant in accordance with Guideline of Significance 6. The Proposed Project will conform to guidelines found in the Fallbrook CP and the I-15 Corridor Subregional Plan, Scenic Preservation Guidelines.

While the Proposed Project includes design measures which reduce project-level impacts on visual resources to less-than-significant levels, the overall development in the region would result in a significant cumulative impact. No feasible mitigation is available to reduce the cumulative effect on visual character, or to mitigate the Proposed Project's contribution to a less than significant level. Consequently, the Proposed Project's contribution to this cumulative impact remains significant and unmitigable.

As currently designed, the Proposed Project will allow the County to address some of its current and projected challenges in relation to an increased population that requires affordable housing and diversity of housing types. The Proposed Project and its surrounding area have been targeted in the Draft General Plan Update as a region that could support increased population. The result is that multiple projects are proposing development which will change the existing visual character from rural land usage to urban land usage. Although each project will likely provide design measures, like the Proposed Project, to reduce direct visual impacts, the cumulative visual change in the region is unavoidable. Therefore, significant cumulative impacts will remain. A Statement of Overriding Considerations would be required to be adopted to address this significant and unmitigated impact.

Map Source: Helix Environmental Planning Inc., April 2009



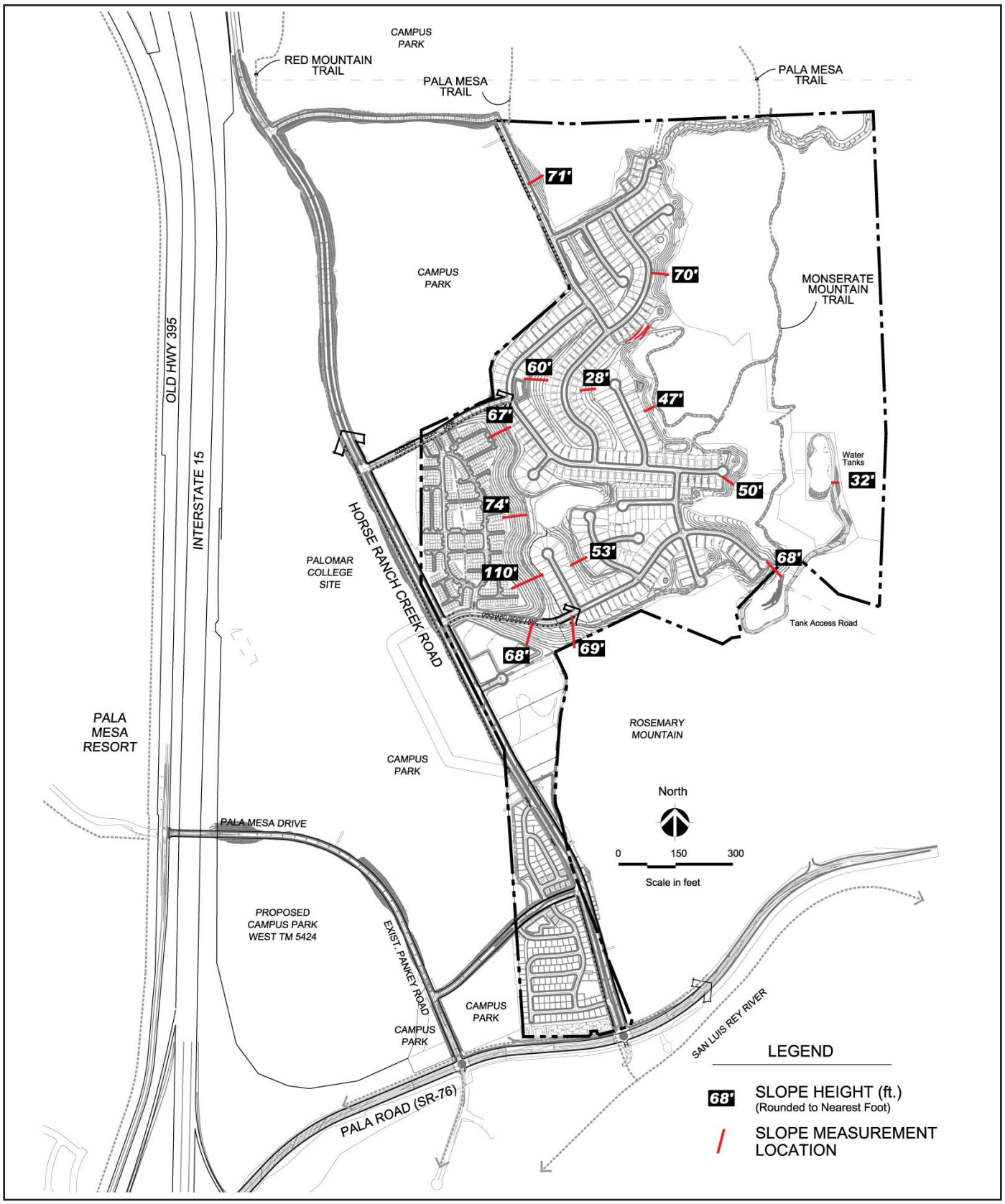
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FIGURE 2.1-1
Steep Slopes

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Map Source: Helix Environmental Planning Inc., April 2009



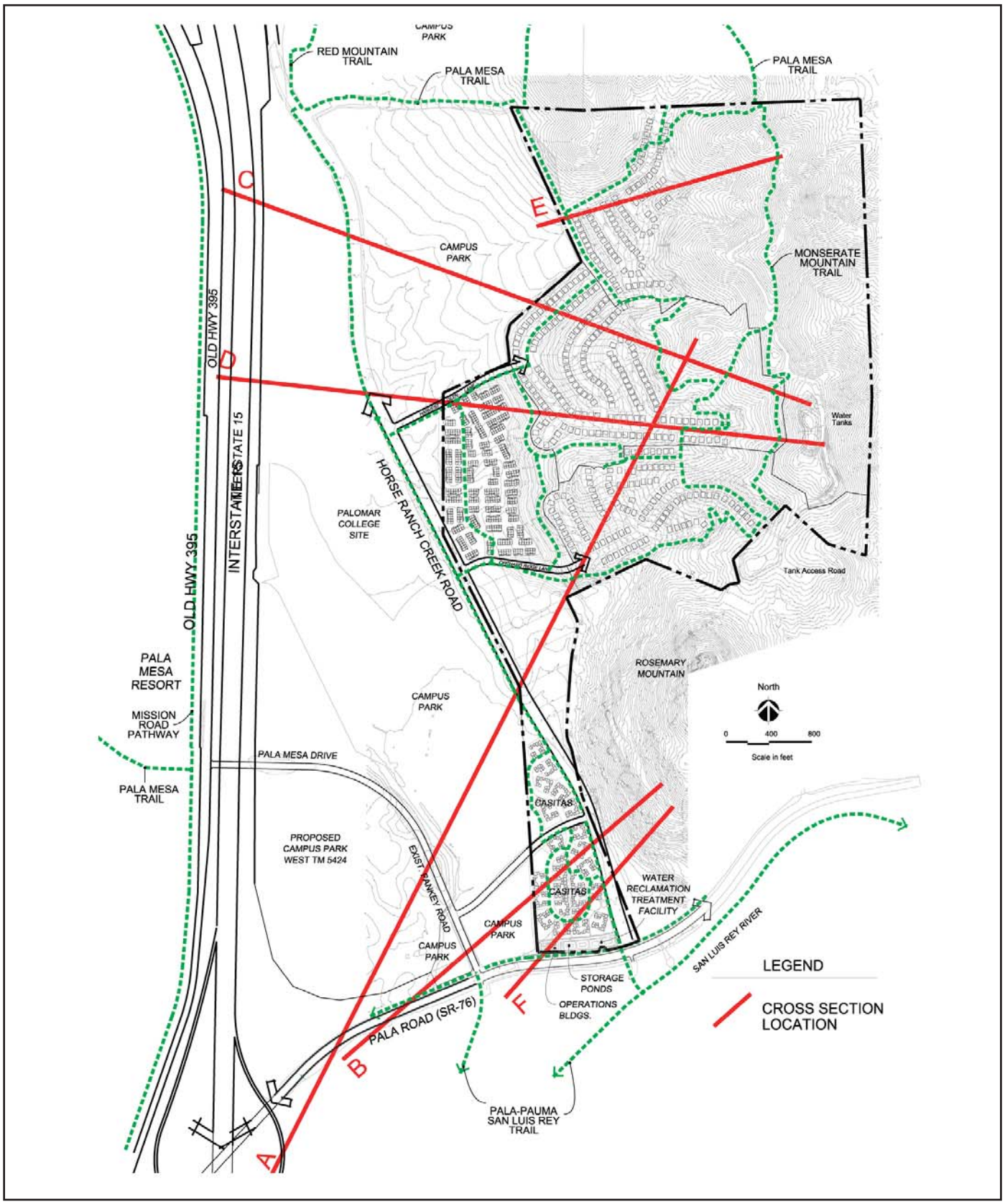
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FIGURE 2.1-2
Manufactured Slope Heights

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Map Source: Development Design Services & GraphicAccess, Inc.



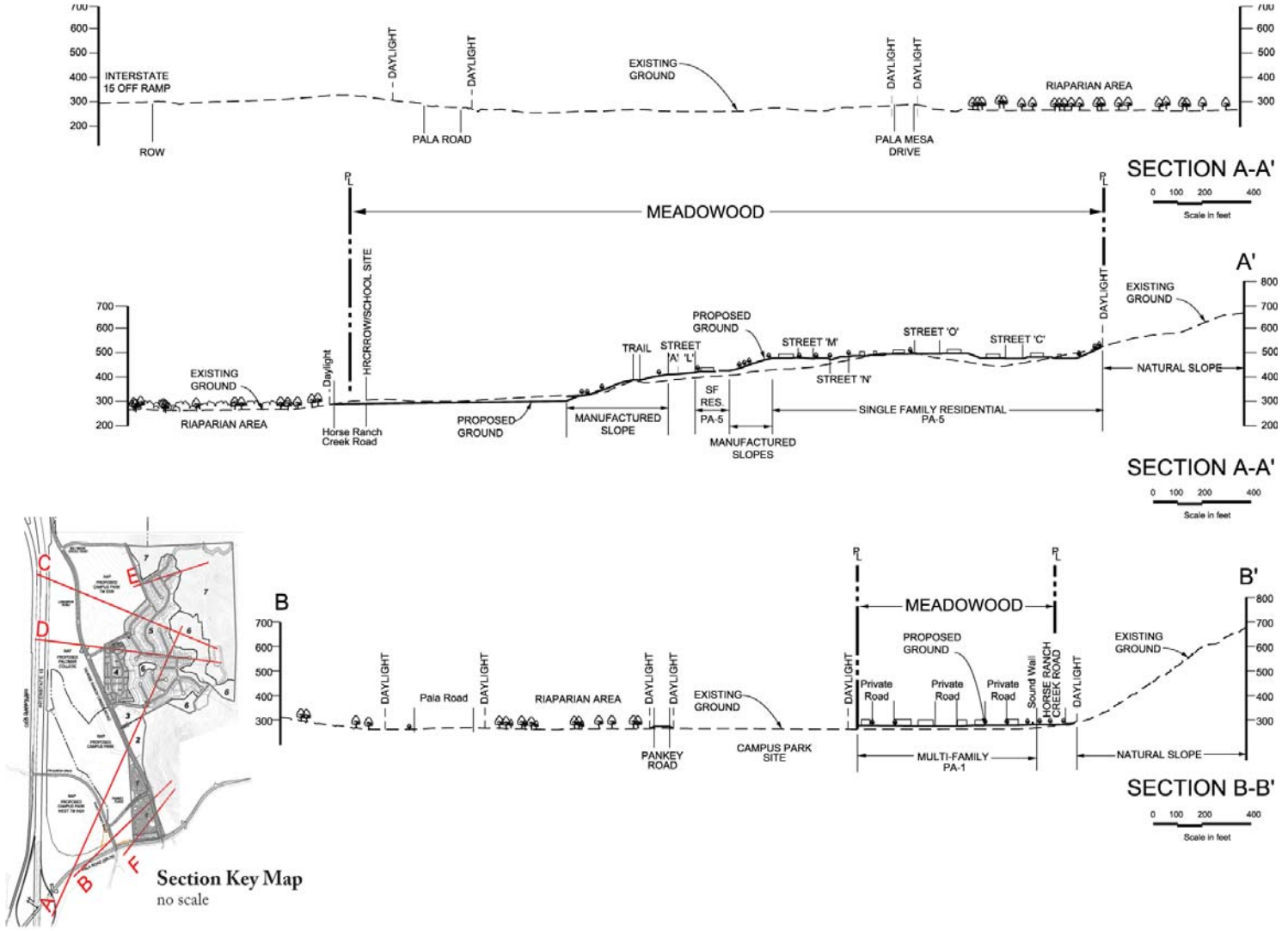
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FIGURE 2.1-3
Cross Section Key Map

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Map Source: Helix Environmental Planning Inc., April 2009



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FIGURE 2.1-4
Cross Sections A & B

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Map Source: Helix Environmental Planning Inc., April 2009

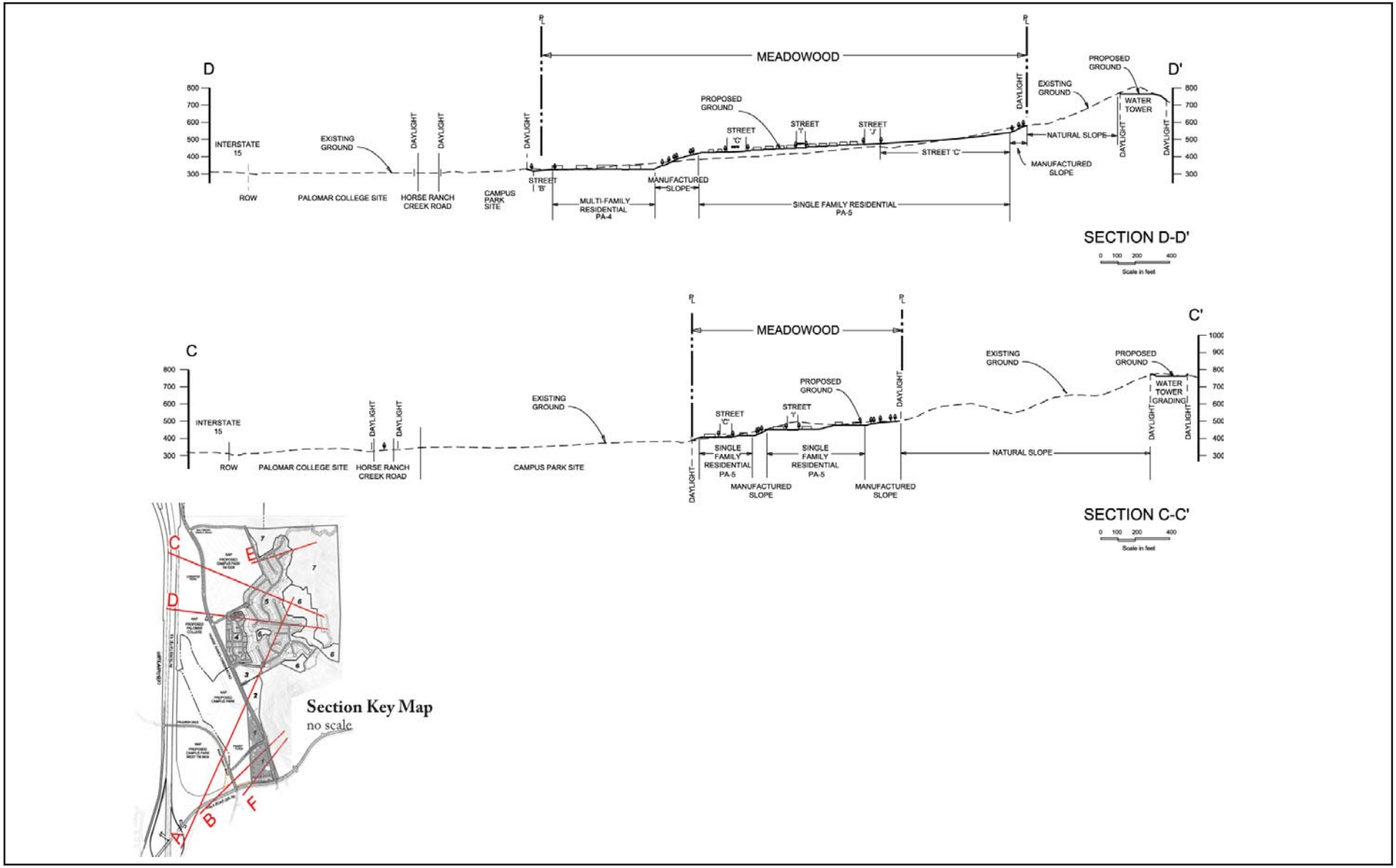


FIGURE 2.1-5
Cross Sections C & D

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Map Source: Helix Environmental Planning Inc., April 2009

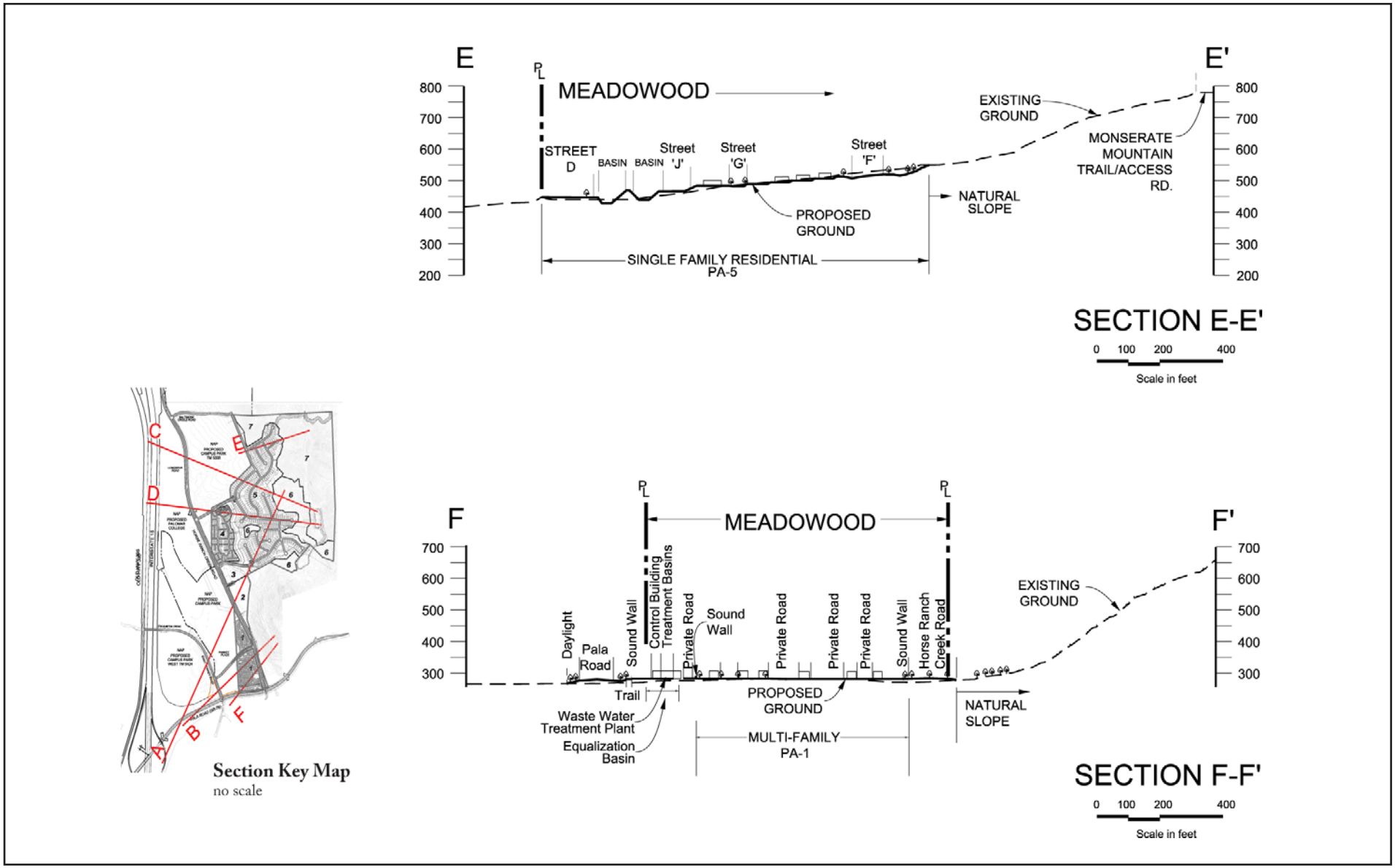


FIGURE 2.1-6
Cross Sections E & F

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Map Source: Helix Environmental Planning Inc., April 2009

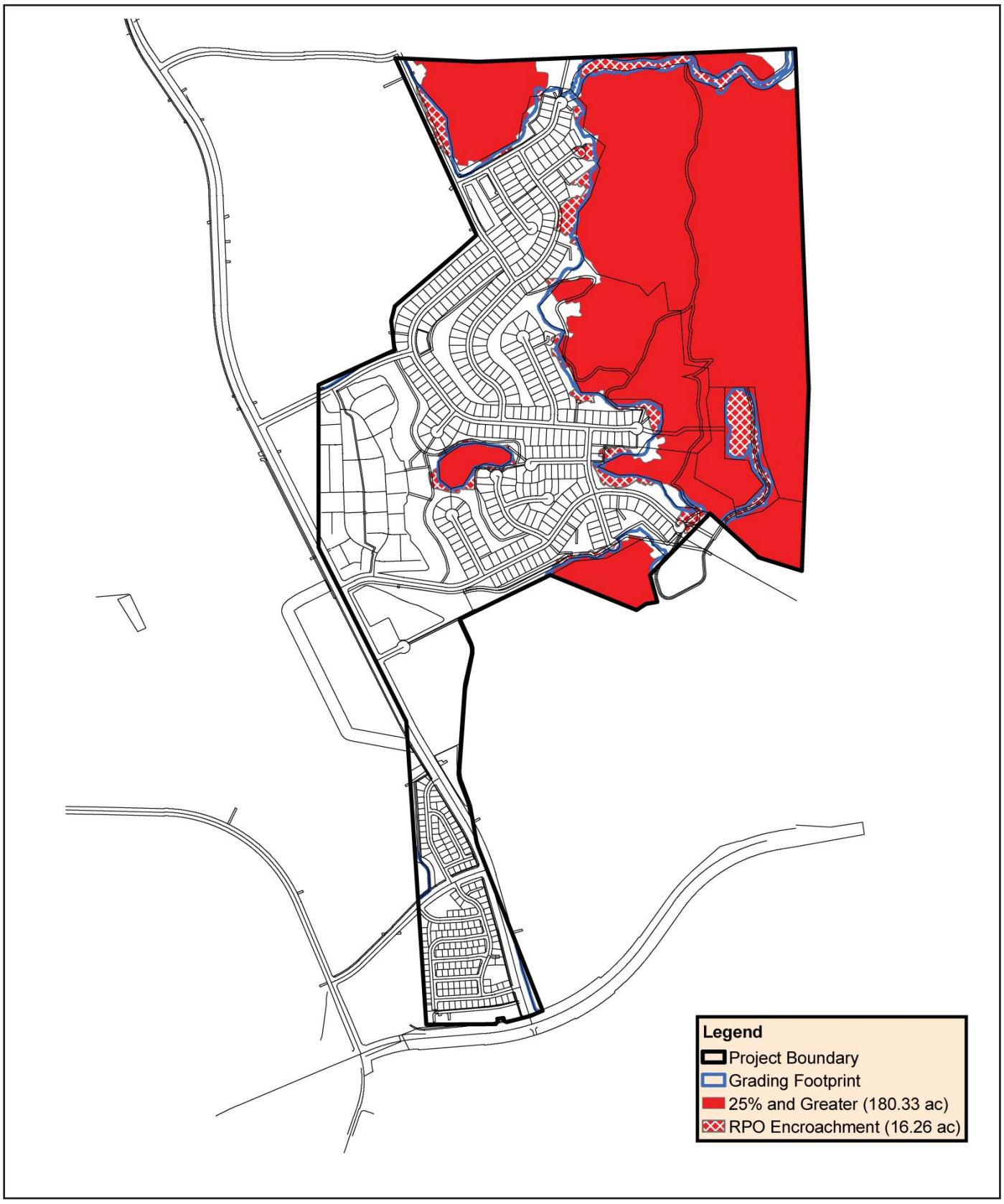


FIGURE 2.1-7
RPO Encroachment

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Map Source: Helix Environmental Planning Inc., April 2009

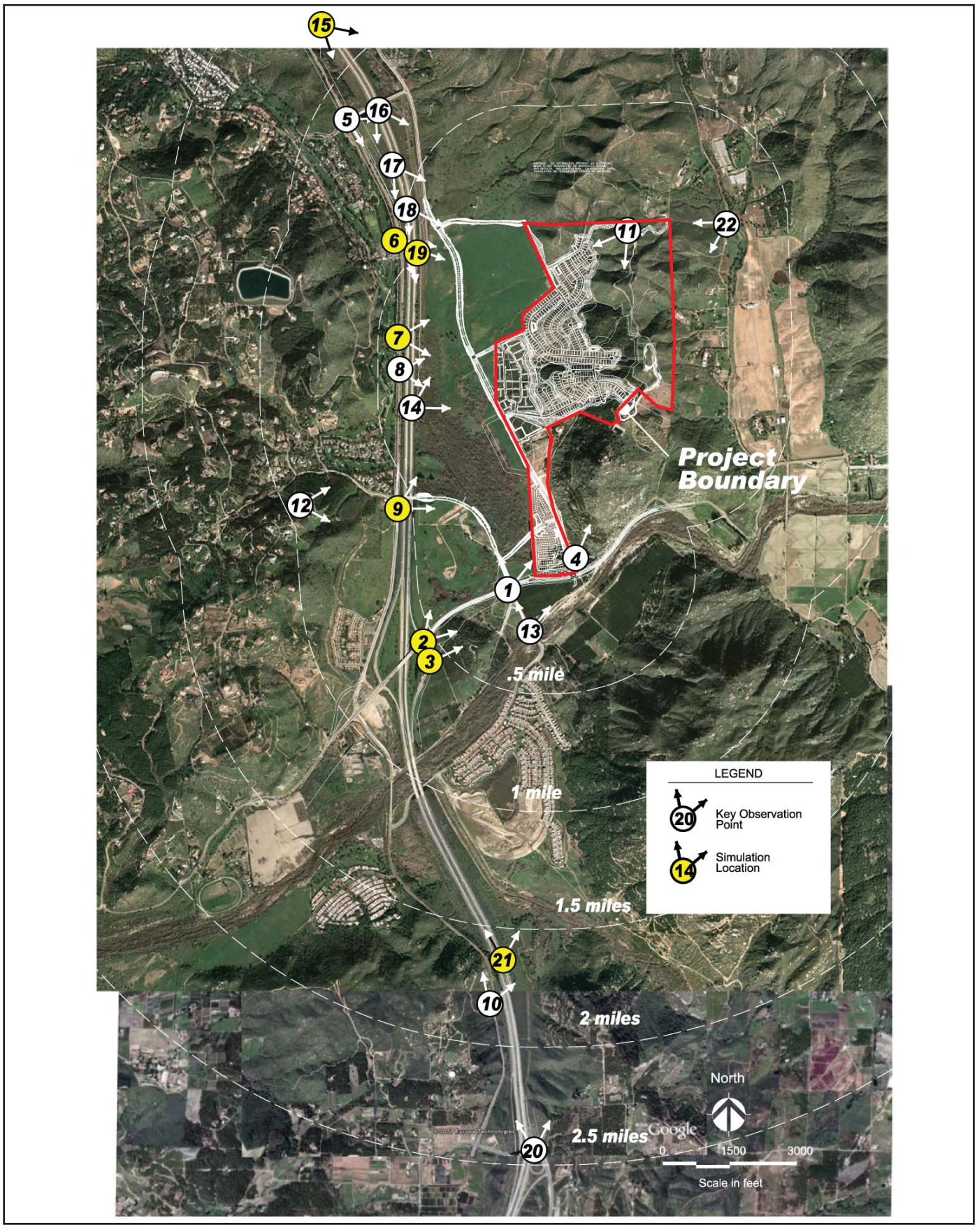


FIGURE 2.1-8
Key Observation Points and Simulation Locations

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Source: Helix Environmental Planning Inc., April 2009



KOP 1 - View from a location on Pala Road near the future Pankey Road intersection, approximately 750' from project.



KOP 2 - View looking northeast from the I-15/Pala Road (SR 76) interchange approximately 1,800' from project.

FIGURE 2.1-9
Key Observation Points 1 & 2

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Source: Helix Environmental Planning Inc., April 2009



KPO 3 - View from a location on the south bound off-ramp of Pala Road and I-15 looking northeast approximately 1,800' from project.



KOP 4 - Looking north from the future Horse Ranch Creek Road/Pala Road (SR 76) intersection

FIGURE 2.1-10
Key Observation Points 3 & 4

RECON

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Source: Helix Environmental Planning Inc., April 2009



KOP 5 - View from intersection of Old Hwy. 395 and Canonita Dr., approximately 1 mile northwest of project.



KOP 6 - View looking east from a location near the Pala Mesa Resort entry and I-15, approximately 3,187' from project.

FIGURE 2.1-11
Key Observation Points 5 & 6

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Source: Helix Environmental Planning Inc., April 2009



KOP 7 - View from Old Hwy. 395 looking east from a location approximately 2,625' west of project.



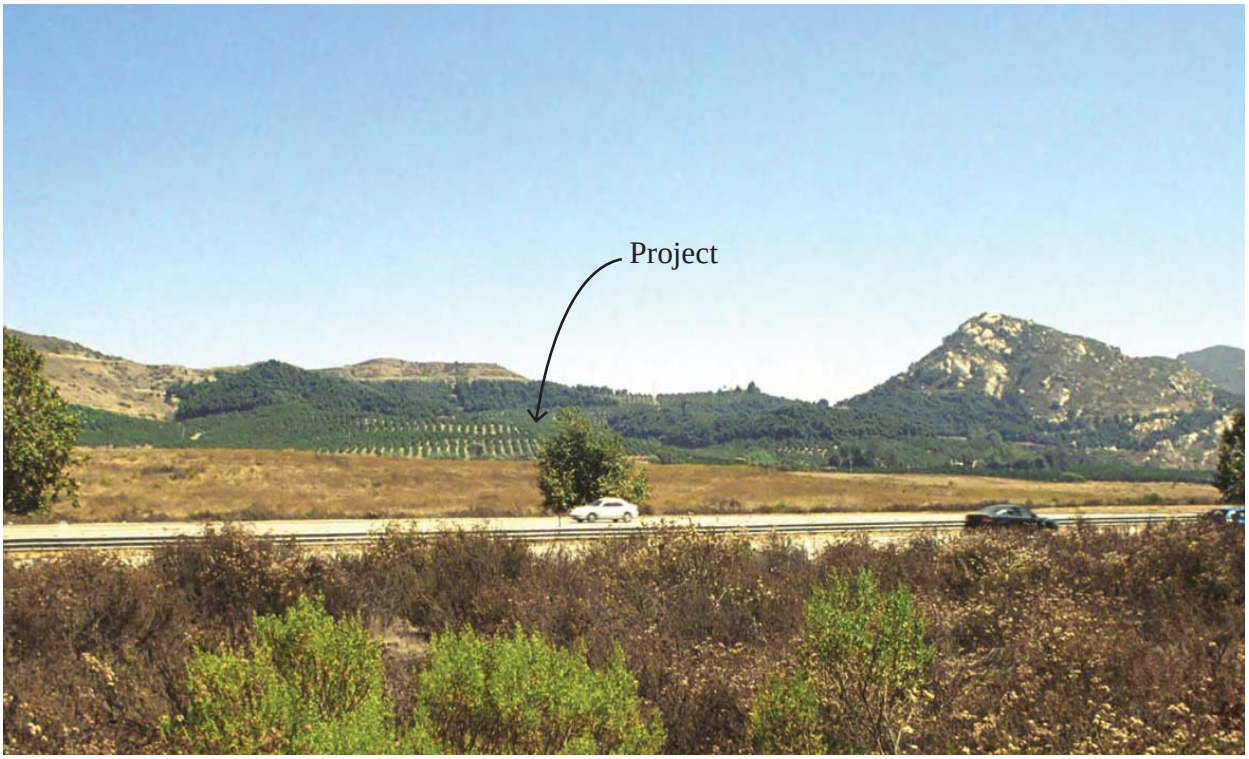
KOP 8 - View from a location on Old Hwy. 395 looking east from a location approximately 2,250' west of project.

FIGURE 2.1-12
Key Observation Points 7 & 8

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Source: Helix Environmental Planning Inc., April 2009



KOP 9 - View from Old Hwy. 395 looking east from a location near Pala Mesa Drive, approximately 3000' from project.



KOP 10 - View from Old Hwy 395 near the West Lilac Road intersection approximately 1.9 miles from project.

FIGURE 2.1-13
Key Observation Points 9 & 10

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Source: Helix Environmental Planning Inc., April 2009



KOP 11 - View southwest from a location on the Monserate Mountain Trail.



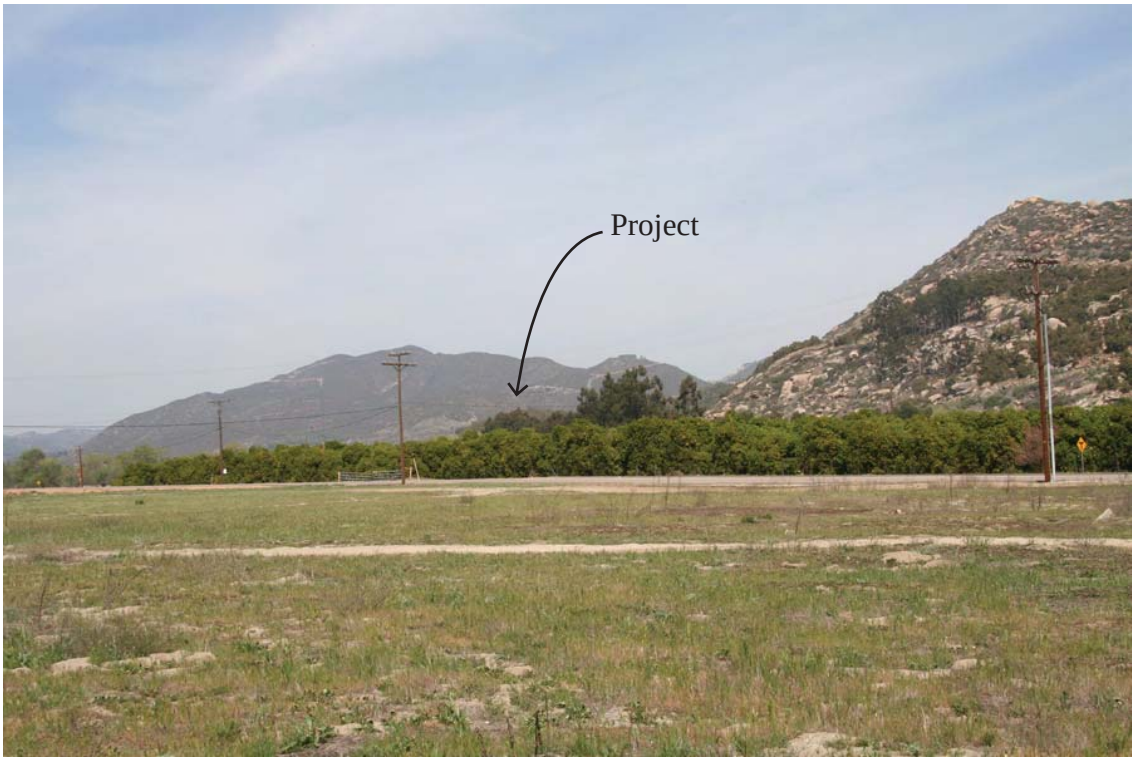
KOP 12 - View looking east from the Engle Family Preserve, approximately 1 mile from project.

FIGURE 2.1-14
Key Observation Points 11 & 12

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Source: Helix Environmental Planning Inc., April 2009



KOP 13 - View from future location of San Luis Rey River Trail, approximately 1,125' from project.



KOP 14 - View looking east across roadside riparian area, approximately 1,875' west of project.

FIGURE 2.1-15
Key Observation Points 13 & 14

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Source: Helix Environmental Planning Inc., April 2009



KOP 15 - View southbound on I-15, north of Canonita Dr., approximately 1.2 miles from project.



KOP 16 - View from southbound I-15 near Canonita Dr., approximately .8 miles from project.

FIGURE 2.1-16
Key Observation Points 15 & 16

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Source: Helix Environmental Planning Inc., April 2009



KOP 17 - View from southbound I-15 looking east toward project from a location approximately .9 miles from site.



KOP 18 - View from southbound I-15 from a location roughly in line with northern project boundary, approximately 3,750' from site.

FIGURE 2.1-17
Key Observation Points 17 & 18

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Source: Helix Environmental Planning Inc., April 2009



KOP 19 - View looking southeast from the terminus of Pankey Road, south of Canonita Rd., approximately 2,214' from site.



KOP 20 - View from northbound I-15 near Lilac Road, approximately 2.4 miles from project.

FIGURE 2.1-18
Key Observation Points 19 & 20

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Source: Helix Environmental Planning Inc., April 2009



KOP 21 - View from northbound I-15 north of Lilac Road, approximately 2 miles from project.



KOP 22 - View from the intersection of Rice Canyon Road and Pala Mesa Heights Drive looking southwest toward location of proposed water storage tanks and access road.

FIGURE 2.1-19
Key Observation Point 21 & 22

RECON

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Map Source: VisionScape Imagery, April 2009





FIGURE 2.1-20
KOP 2 Photosimulation – View from Southwest of the Project Siteat I-15/SR-76 Interchange

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Map Source: VisionScape Imagery, April 2009





FIGURE 2.1-21
KOP 3 Photosimulation – View from Southwest of the Project Site at SR-76 Off-ramp from I-15

RECON

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Map Source: VisionScape Imagery, April 2009





FIGURE 2.1-22
KOP 6 Photosimulation – View from West of the Project Site on Old Highway 395, West of I-15

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Map Source: VisionScape Imagery, April 2009



FIGURE 2.1-23
KOP 7 Photosimulation – View from Old Highway 395 West of the Project Site

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Map Source: VisionScape Imagery, April 2009

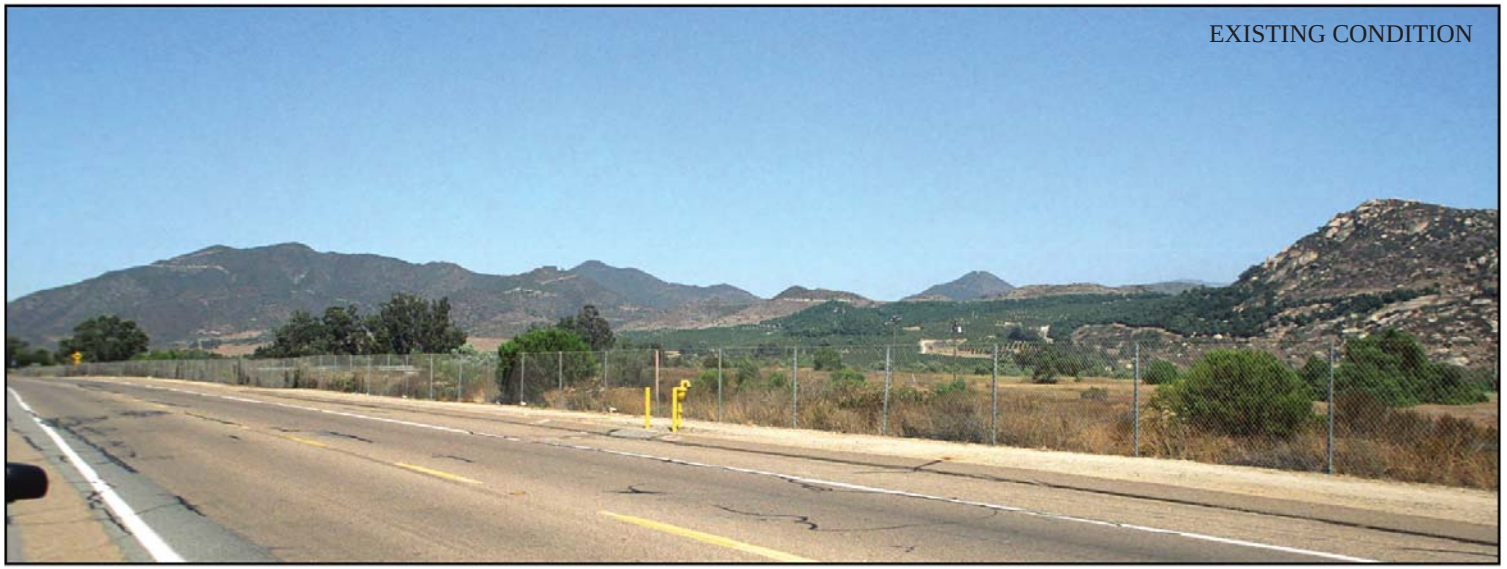




FIGURE 2.1-24
KOP 9 Photosimulation – View from West of the Project Site West of I-15

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Map Source: VisionScape Imagery, April 2009





FIGURE 2.1-25
KOP 21 Photosimulation – View from I-15, South of the Project Site

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Map Source: VisionScape Imagery, April 2009





FIGURE 2.1-26
KOP 15 Photosimulation – View from Northwest of the Project Site, West Shoulder of Southbound I-15

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Map Source: VisionScape Imagery, April 2009





FIGURE 2.1-27
KOP 19 Photosimulation – View from Northwest of the Project Site, East Shoulder of I-15

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Map Source: Helix Environmental Planning, April 2009

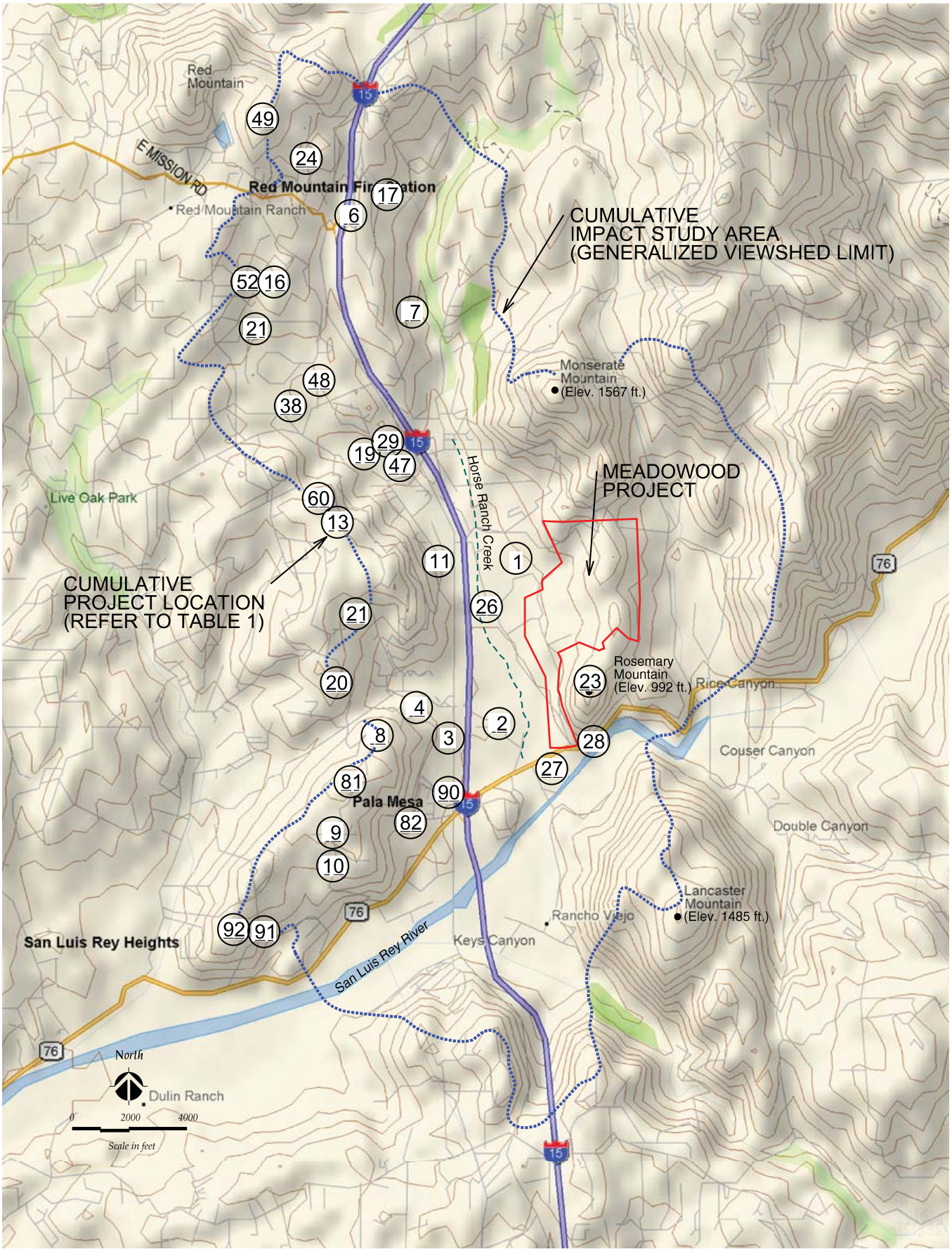


FIGURE 2.1-28

Cumulative Projects in the Viewshed

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TABLE 2.1-1
PROJECT'S CONFORMANCE WITH I-15 CORRIDOR
SCENIC PRESERVATION GUIDELINES

1. SITE DESIGN	
A. Site Planning Standards	
1. Individual projects shall reinforce the character of the sites, the attributes of adjacent projects and preserve the viewsheds, natural topographic features, and natural watercourses.	The design of the Proposed Project demonstrates sensitivity to both the natural setting and to the neighborhood context to ensure that the project reinforces the character of the site, the attributes of the adjacent properties and preserves the view sheds, natural topographic features and natural watercourses. Existing trees along the primary and secondary roadways will be preserved whenever possible and 49.3 acres of the site will remain in groves. No hilltop development is proposed and steep slopes will be avoided. Pursuant to the Conceptual Landscape Plan (Figures 1-12 a–d), extensive landscaping of foreground slopes and streetscapes will buffer the Project Site from view and would be integrated into the existing visual environment to the greatest extent possible. The large wetlands immediately adjacent to the project site will be preserved.
2. Individual projects shall relate on-site open space and pedestrian areas with those of other projects, both visually and in terms of providing for continuous paths of travel.	The Proposed Project includes approximately 6 miles of hiking trails, which will run north and south along the project's ridgeline and along an existing easement road with an uninterrupted westerly view, incorporating existing hiking and horse trails. The proposed on-site trail system has been planned and coordinated with adjacent developments. Additionally, the proposed natural open space area is adjacent to the open space area proposed in the Campus Park development in the northwest portion of the Proposed Project site.
3. Building setbacks shall be coordinated between adjacent lots so as to capitalize on usable site area between buildings.	Proposed Project setbacks have been planned to utilize the usable site area in between buildings. The Project Site Plan proposes a standard 5-foot side yard setback for single-family residential lots and 10' setbacks from property lines for multi-family residential lots. Pocket parks, agricultural open space and trails will be utilized as useable common areas.
4. Building orientation shall take maximum advantage of existing views and, create view corridors.	The orientation of the Proposed Project will take maximum advantage of existing views and create view corridors. The primary views are to the west and majority of homes are positioned to appreciate the primary view. The most visual single-family area follows the natural topography with curved streets to minimize graded slopes, and buildings have been limited to two stories and a 35-foot maximum height limit to allow continued viewing opportunities.
5. Ridgeline projects can be highly sensitive and are generally discouraged: a. Ridgeline projects shall maintain a low profile appearance and the natural physical character of the ridgeline shall be	No ridgeline development is proposed with the exception of the water tanks. Hillside development has been minimized with less than 10 percent encroachment into the steep sloped areas of the Proposed Project. The prominent ridges and steeper slopes that are the most visible are preserved in

TABLE 2.1-1
PROJECT'S CONFORMANCE WITH I-15 CORRIDOR
SCENIC PRESERVATION GUIDELINES
(CONTINUED)

substantially maintained; b. Ridgeline projects shall be limited to one story; c. Ridgelines that have been graded or disturbed shall be supplemented with a sufficient amount of trees, shrubs and ground cover to minimize visual impacts resulting from such disturbances.	open space, along with 49.3 acres of the existing groves, retaining the visual character of the property.
6. A combination of earth berm and/or wall techniques shall be provided to buffer noise.	The Proposed Project includes a combination of barrier materials for sound attenuation. Specifically, acceptable barrier materials include, but are not limited to, masonry block, wood frame with stucco, 0.5-inch-thick Plexiglas, or 0.25-inch-thick plate glass
B. Parking and Circulation Design Standards	
1. Use of public right-of-way for service loading/unloading shall be avoided. Adequate on-site service and delivery areas, including provisions for circulation, shall be provided. Service areas shall be separated from building entrances and public access areas when possible. Storage and loading areas shall not be located in the front yard.	The Proposed Project does not include commercial or industrial uses; therefore, service and industry areas are not incorporated into the project design. The Proposed Project will provide adequate circulation and improvements to the existing roadway system.
2. Project entries shall provide for safe and efficient circulation; a. Project entries and the transition from major circulation routes into the project interior shall be accomplished through the use of landforms, open space, landscape plantings and architectural elements (i.e., walls, signs, etc.); b. The number of driveway entrances into parking areas from public streets shall be minimized. Use of common easements for parking and circulation systems integrated between properties shall be encouraged; c. Safety lighting shall be provided at all street intersections and on project drives, entries, walkways and parking areas.	a. Project entries have incorporated different landforms, landscaping, and architectural elements. The project's primary entry will incorporate a low visibility wall and community identification sign that meets the County's community identification sign guidelines. b. The number of driveway entrances into parking areas from public streets shall be minimized. The shared park/school parking is located in the southwest corner of PA 3. The only access is via Street Q, the cul-de-sac between PAs 2 and 3. c. . Safety lighting will be provided according to the San Diego County Light Pollution Code.
3. Parking areas or structures shall be designed as integral components of the overall design of specific projects. Parking areas shall be bermed or screened from street views where possible.	The proposed residential lots have sufficient area to provide at least two on-site parking spaces consistent with the Zoning Ordinance, and will be screened from street views and landscaped when possible. Single-loaded parking on certain streets, private garages and additional guest parking has been included to minimize the impact of street parking. Common area residential parking lots are not proposed. Common parking areas in the multi-family areas and the shared park/school parking located within Planning Area 3 will be screened from the public street
4. Development of bikeways shall be encouraged.	The Proposed Project includes a trail system intended as a non-motorized multi-use trail system

TABLE 2.1-1
PROJECT'S CONFORMANCE WITH I-15 CORRIDOR
SCENIC PRESERVATION GUIDELINES
(CONTINUED)

	that accommodates bicycles.
5. Separation of pedestrian and bikeway or automobile traffic throughout a project shall be developed through the use of differing paving material or painting/coloring techniques.	Pedestrian trails and bikeways would be constructed of decomposed granite gravel, and are separated from automobile traffic through the use of setbacks, curbs and landscaping.
6. Definition of pedestrian paths and crossings shall be developed through the use of differing paving material or painting/coloring techniques.	Crosswalks will be differentiated from the typical paving materials. Trails will be comprised of decomposed granite. While pedestrian paths and crossings would utilize stone seat walls, special native plantings, lighting, and varying walkway widths.
7. Complete access for emergency (police, fire and ambulance) services to structures shall be provided as required.	The Proposed Project has been designed to meet the requirements for emergency services access. Additionally, a fire access road from Street E to Rice Canyon Road has been incorporated into the Project.
C. <u>Site Lighting Standards</u>	
1. Site lighting shall minimize emission of light rays into both the night sky and neighborhood properties, especially as it pertains to Mt. Palomar Observatory; a. Site lighting shall be limited to that necessary for security, safety and identification and shall be integrated with project landscape design. b. Excessive building or site lighting for decorative purposes shall be discouraged. 2. Site lighting plans that conflict with the character of the community shall be discouraged.	The Proposed Project will comply with all County lighting standards, including the San Diego Light Pollution Code. The overall lighting concept for the community is to be energy-efficient, screen or shield the light source whenever possible, and be effective for safety and security. The Proposed Project includes special landscape lighting limited only to key areas and carefully controlled. Nighttime lighting would be shielded and directed away from riparian habitat adjacent to the development.
D. <u>Landscape Design Standards</u>	
1. Visual screening for portions of development projects shall be provided to include satellite dishes, parking, and service areas located in viewshed areas.	The only common residential parking areas proposed are in the multi-family areas and are screened from the public street. The park/school parking lot located within Planning Area 3 would also be screened from the public street. No satellite dishes or service areas are proposed.
2. Project boundary landscaping shall complement adjacent landforms and plant materials.	The Conceptual Landscape Plan includes landscaping, including boundary landscaping, designed to reflect the Fallbrook region, which consists of gray-green native plantings contrasting with verdant groves, and oak woodlands. This pallet would complement adjacent landforms and plant materials.
3. Landscape plans shall utilize native and drought-tolerant plants where possible, per the plant list provided by County staff.	The Conceptual Landscape Plan for the Proposed Project will utilize native and drought-tolerant plants where possible. Trees, shrubs, and plantings have been proposed for drought tolerance as well as compatibility with the rural and natural setting of Fallbrook's agricultural heritage.
4. Trees and plantings adjacent to pedestrian paths and within parking areas shall be selected to enhance the human scale;	The Proposed Project includes landscaping to provide transitions between development and surrounding open space areas, screen and buffer

TABLE 2.1-1
PROJECT'S CONFORMANCE WITH I-15 CORRIDOR
SCENIC PRESERVATION GUIDELINES
(CONTINUED)

a. Tree canopies shall be encouraged to soften the visual impact of vehicular circulation and parking areas and relieve them from heat build-up. Trees shall be placed away from entrances to buildings, parking lots and street intersections for visibility and safety where possible. b. Low scale plantings shall be located adjacent to driveway entrances and street corners where possible and shall not obscure drive visibility. c. Parking areas shall be visually screened with peripheral landscaping wherever feasible. Exposed vehicular use areas shall include a minimum of 10% of the paved areas in landscaping, dispersed throughout the parking area.	edges of development from view, screen and soften manufactured slopes, and provide a buffer between neighborhoods. Tree plantings will be incorporated on slopes, along streets and parkways, and within open space areas to visually shield the project from view.
5. Common open spaces and recreational areas shall be linked by pedestrian pathways to individual lots.	The Proposed Project includes several miles of multi-use trails throughout the site, as well as hiking trails throughout the open space area. Additionally, the Proposed Project designates approximately 5.9 miles of public hiking and horse trails within the site. Pedestrian walkways and trails connect common useable spaces, recreational facilities and public facilities such as the school and nearby transit service area.
6. A "greenbelt" shall be provided in viewshed areas for accommodation of bikeways and/or footpaths.	The Proposed Project includes greenbelts within viewshed areas, as well as preserved orchards. Biking and hiking paths are also provided.
7. Landscape materials that aid in preventing the rapid spread of brush fires shall be provided.	The Proposed Project will comply with the County brush management requirements and will utilize landscape materials that aid in preventing the rapid spread of brush fires. Brush management will be specifically provided for within all sensitive buffer areas. The landscape design for these areas will adhere to the Fire Protection Plan prepared for the Proposed Project.
8. Earth berms shall be rounded and natural in character where possible, designed to obscure undesirable views.	In order to block the project from sight and soften its appearance, naturally appealing berms and vegetation would be used.
9. Major strands of native trees shall be preserved.	There are no major strands of native trees currently on the site. The site has been farmed for agriculture over several decades. However, existing mature native vegetation will be preserved where feasible and new native vegetation will be utilized whenever possible to maintain the rural Fallbrook character.
E. <u>Public Utilities and Safety Standards</u>	
1. New development projects shall be phased with the provision of adequate fire protection services.	Development of the Proposed Project will be phased with the level of available services. Temporary fire management zones have been negotiated with the adjacent property owners so that the development will be phased with adequate fire protection.
2. Fire prevention and suppression in the design of all new projects shall be encouraged.	The Proposed Project includes a fire protection plan that assures the Proposed Project's compliance with

TABLE 2.1-1
PROJECT'S CONFORMANCE WITH I-15 CORRIDOR
SCENIC PRESERVATION GUIDELINES
(CONTINUED)

	all regulations relating to primary and secondary access, water supply, ignition-resistant construction, fire protection systems, fuel modification and defensible space specified in the County Fire Code, County Building Code Brush management zones are proposed around all development adjacent to natural brush.
3. Utilities shall be placed underground (electrical, telephone, cable, etc.), where practical.	Utilities would be placed underground.
4. The alignment of utility infrastructure shall be correlated with the topography, to minimize disruption of natural features within the viewshed areas.	Utility infrastructure has been located within right-of-way easements to minimize disruption of natural features within the view shed areas.
5 Transformers and related utility components shall be placed in vaults or be screened with retaining walls and/or plantings and located to avoid conflict with pedestrian paths.	Transformers, mechanical equipment, utility boxes and meters will be screened using plantings and/or barriers to avoid conflict with pedestrian paths.
F. Development Standards for Steep Topography and Natural Features	
1. Extensive grading of slope areas within viewsheds shall be minimized; a. Revegetation and erosion control shall be provided in all newly graded areas. b. Grading during the wet seasons (November to March) shall be discouraged.	All grading within the Proposed Project is designed and rounded to follow the natural contours and minimize unnatural slopes. Areas disturbed during grading will be revegetated and erosion controls will be provided in the newly graded areas. Grading during the wet season will be avoided when possible.
2. Hillside development shall be integrated with existing topography and landforms. Areas of steep topography, tree stands, hillside agricultural activity and rock outcroppings shall be respected and preserved.	The Proposed Project has incorporated the natural features of the Project Site into design considerations, including the preservation of 91% of all steep slopes within permanent open space easements. Additionally, minimal hillside residential lots are proposed, no hilltop residential development is proposed and rock outcroppings will be preserved.
3. Variety in the development of hillsides shall be encouraged through the use of appropriate site preparation techniques, grading techniques, and in the configuration, size and placement of lots.	Three different building types are proposed in the residential planning areas, each utilizing different grading techniques to configure and locate lots. The single-family areas on the slopes have been designed with curved streets and landscaped slopes to respond to the natural contours of the site and to provide a less uniform look.
4. The arrangement of building sites to optimize and retain significant viewsheds shall be encouraged.	The orientation of the units will take maximum advantage of existing views and create view corridors. The primary views are to the west and majority of homes are positioned to appreciate the primary view.
5. The protection and preservation of the public use of on-site Vista points shall be encouraged.	The Proposed Project will include the preservation of several vista points located along the public ridgeline trail.
6. The visual quality shall be maximized and the erosion potential shall be minimized by planting native and naturalized plants, especially in disturbed areas adjacent to upgraded hillsides and watercourses.	Native plants will be utilized along the unnatural slopes to minimize erosion and maximize visual quality for greater than 50 feet of horizontal distance.
7. Natural watercourses shall be protected and	No major natural watercourses exist on the project

TABLE 2.1-1
PROJECT'S CONFORMANCE WITH I-15 CORRIDOR
SCENIC PRESERVATION GUIDELINES
(CONTINUED)

existing watershed and groundwater resources shall be conserved.	site. The project does not propose to use groundwater except as a secondary source of irrigation of retained groves in dry years As such, groundwater extraction will be minimal and groundwater resources will be conserved.
8. Any grading above 25 percent slope will blend with the surrounding area and be landscaped appropriately to look natural.	Minimal grading is proposed on existing slopes with a gradient greater than 25 percent. This grading will be landscaped with native vegetation that blends into the natural hillside.
2. ARCHITECTURAL DESIGN	
A. Building forms, materials and colors shall complement adjacent topography, landscape and buildings in the area.	
1. Architectural harmony with the surrounding community shall be achieved, through use of natural appearing materials and complementary styles.	The Proposed Project includes "General Architectural Guidelines" within the Specific Plan. The guidelines are intended to ensure that a variety of design elements are incorporated into the design of homes. While certain community-wide elements will have a common design (i.e. landscaping, fencing and signage), a variety of architectural styles are envisioned. A consistent palette of building materials and complementary color schemes, in conjunction with a uniform landscape scheme, will be used to tie several architectural styles together. Consistent with the surrounding community, primary materials will be wood, stucco, brick and stone. In addition, architectural detailing designed to minimize the appearance of building massing, thereby visually reducing the structural scale and creating a "village" feel. All proposed architecture would include "village style" features such as porches, columns, arcades, overhangs, seating areas, and shade trees, which would allow the development to achieve harmony with the surrounding styles of the Fallbrook community
2. Colors for primary building forms shall be coordinated with landscaping materials. Earth tones and muted pastels are preferred for large areas, with primary colors limited to accent points and trim.	The colors of the primary building forms will be earth tones and soft pastels.
3. Building materials used shall convey a sense of permanence and quality.	Building materials in each planning area will complement one another in order to convey a sense of permanence and quality. Primary materials will be wood, stucco, brick and stone.
4. Where a site is visible from higher elevations, roof forms shall be considered integral design elements, with consideration given to colors and pattern of roofing materials.	There are no building sites in the surrounding area that have proposed elevations higher than the proposed site.
5. The use of mirrored glass, which can cause the sun to glare into drivers' eyes and, therefore, a potential safety hazard, shall be prohibited on buildings visible from I-15.	The Proposed Project does not include the use of mirrored glass.
B. Building forms shall be of appropriate scale, provide visual interest, avoid block-like configurations and, where feasible, be integrated into the existing topography.	
1. The use of special detail treatments in roof	The Proposed Project includes detail treatments in

TABLE 2.1-1
PROJECT'S CONFORMANCE WITH I-15 CORRIDOR
SCENIC PRESERVATION GUIDELINES
(CONTINUED)

forms, windows and entries shall be encouraged.	roof forms, windows and entries to allow roof lines, shadow patterns, and architectural detailing to be offset to provide relief and visual contrast.
2. Roof-mounted satellite dishes, solar systems, ventilation ducts and other mechanical equipment shall be integrated into the architectural design, and be screened where visible from adjacent properties or high elevations.	All mechanical equipment will be screened from view.
3. Building forms shall be scaled to step up and away from primary circulation routes and from each other; parallel and continuous building facades and paved surfaces shall be avoided where possible.	Proposed building forms will be non-continuous and stepped up and down in elevation from the primary circulation routes to minimize the appearance of building massing.
C. Signage shall not adversely impact the environmental and visual quality of the area.	
1. All signs shall be limited to the minimum size and height necessary to adequately identify a business location.	The Proposed Project includes signage consistent with all guidelines related to size and height. The proposed signage would be limited to community identification signs. There are no commercial or industrial uses proposed in the project,
2. All signs shall be kept as low to the ground as possible.	All proposed signs will be located as low to the ground as possible.
3. Signs shall be used for identification, not advertisement.	No signs are proposed for advertisement.
4. Signage design shall be carefully integrated with the site and building design concepts to create a unified appearance for the total development. a. Signs shall be part of a comprehensive graphic program for each project.	The Proposed Project includes signage that will integrate the site and building design concepts to create a uniform appearance. Entry monument signage will be placed on a six foot high monument wall and would blend with the site and building design concepts located throughout the community. Entry signs would be constructed of native stone. At the entrance of the project, an orchard monument will be built to maintain the current village and orchard theme of the area.
5. Signs shall be predominately natural materials, non-moving, externally illuminated.	Proposed signs will utilize natural materials and be non-moving and externally illuminated.
6. Off-premise signs shall be prohibited except for temporary real estate directional, community identification and directional signs, as specified in Section 6207 of the County Zoning Ordinance.	No permanent off-premise signs are proposed. Temporary real estate directional signs, community identification and directional signs shall comply with the County Zoning Ordinance.

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2.2 Air Quality (including Global Climate Change)

An Air Quality Technical Report and a Global Climate Change Analysis were prepared for the Proposed Project (Revised 2011). The following section is a summary of these reports which can both be found in their entirety in Appendices D-1 and D-2 of this EIR.

2.2.1 Existing Conditions

Climate

The project area, like the rest of San Diego County's inland valley areas, has a Mediterranean climate characterized by warm, dry summers and mild, wet winters. The mean annual temperature for the project area is 74 degrees Fahrenheit (º F). The average annual precipitation is 13 inches, falling primarily from November to April. Winter low temperatures in the project area average about 44º F, and summer high temperatures average about 81º F (U.S. Department of Commerce 2006).

The dominant meteorological feature affecting the region is the Pacific High Pressure Zone, which produces the prevailing westerly to northwesterly winds. These winds tend to blow pollutants away from the coast toward the inland areas. Consequently, air quality near the coast is generally better than that which occurs at the base of the coastal mountain range.

Generally, atmospheric temperature decreases as one moves higher and further from the earth's surface; however, fluctuations in the strength and pattern of winds from the Pacific High Pressure Zone throughout the day produce periodic temperature inversions. A temperature inversion is a thin layer of the atmosphere where the decrease in temperature with elevation is less than normal. The inversion acts like a "lid" keeping pollutants "trapped" within the area under the inversion layer. This area is called the mixing depth. Generally, the morning inversion layer is lower than the afternoon inversion layer. The greater the change between the morning and afternoon mixing depths, the greater the ability of the atmosphere to disperse pollutants.

Throughout the year, the elevation of the temperature inversion within the San Diego Air Basin (SDAB) in the afternoon varies between approximately 1,500 and 2,500 feet above MSL. In winter, the morning inversion layer is about 800 feet above MSL. In summer, the morning inversion layer is about 1,100 feet above MSL. Therefore, air quality tends to be better in winter than in summer because there is a greater change in the morning and afternoon mixing depths, allowing the dispersal of "trapped" pollutants. The Project Site is situated at an elevation of approximately 650 feet above MSL (the site ranges from 300 feet to over 550 feet at the northern end).

The prevailing westerly wind pattern is sometimes interrupted by regional "Santa Ana" conditions. A Santa Ana occurs when a strong high pressure develops over the Nevada-Utah area and overcomes the prevailing westerly coastal winds, sending strong, steady, hot, dry northeasterly winds over the mountains and out to sea.

Strong Santa Anas tend to blow pollutants out over the ocean, producing clear days. However, at the onset or during breakdown of these conditions, or if the Santa Ana is weak, emissions from the South Coast Air Basin to the north are blown out over the ocean, and low pressure over Baja California draws this pollutant-laden air mass

southward. As the high pressure weakens, prevailing northwesterly winds reassert themselves and send this cloud of contamination ashore in the SDAB.

When this event does occur, the combination of transported and locally produced contaminants generates the worst air quality measurements within the SDAB.

Global Climate Change

The earth's climate is in a state of constant flux with periodic warming and cooling cycles. Extreme periods of cooling are termed "ice ages," which may then be followed by extended periods of warmth. For most of the earth's geologic history, these periods of warming and cooling have been the result of many complicated, interacting natural factors that include volcanic eruptions which spew gases and particles (dust) into the atmosphere, the amount of water, vegetation, and ice covering the earth's surface, subtle changes in the earth's orbit, and the amount of energy released by the sun (sun cycles). However, since the beginning of the Industrial Revolution around 1750, the average temperature of the earth has been increasing at a rate that is faster than can be explained by natural climate cycles alone.

With the Industrial Revolution came an increase in the combustion of carbon-based fuels such as wood, coal, oil, and "biofuels." Industrial processes have also created emissions of substances that are not found in nature. This in turn has led to a marked increase in the emissions of gases that have been shown to influence the world's climate. These gases, termed "greenhouse gases" (GHG), influence the amount of heat that is trapped in the earth's atmosphere. Because recently observed increased concentrations of GHG in the atmosphere are related to increased emissions resulting from human activity, the current cycle of global climate change is generally believed to be largely due to human activity. Of late, the issue of global climate change has arguably become the most important and widely debated environmental issue in the United States and the world.

Regulatory Framework

Federal Regulations

The federal Clean Air Act (CAA) was enacted in 1970 and amended in 1977 and 1990 (42 U.S.C. 7401) for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. In 1971, in order to achieve the purposes of the CAA the U.S. Environmental Protection Agency (EPA) developed primary and secondary national ambient air quality standards (NAAQS) for seven pollutants known as "criteria" pollutants: ozone (O_3), carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), lead (Pb), and suspended particulates PM_{10} and $PM_{2.5}$.(Table 2.2-1).

Primary NAAQS are required to protect human health with an adequate margin of safety. Secondary standards are designed to protect property and the public welfare from air pollutants in the atmosphere.(42 U.S.C. 7409(b)(2)).

Ozone (O_3)

In 1997, the U.S. EPA promulgated a new eight-hour ozone standard of eight parts per hundred million (pphm) to replace the existing one-hour standard of 12 pphm. The SDAB

is designated a "basic" non-attainment area for the new eight-hour ozone standard (U.S. EPA 2004a). Using the discretion provided by Section 172(a)(1) of the CAA, the U.S. EPA has chosen not to classify the basin (e.g., moderate, serious, etc.). Pursuant to Section 172(a)(2)(A) of the CAA, the period of attainment will be no more than five years from the effective date of designation (U.S. EPA 2004b). Consequently, the SDAB must demonstrate attainment by June 15, 2009; however, the U.S. EPA may grant an extension of the attainment date to no more than 10 years after designation, or June 15, 2014.

On March 12, 2008, the U.S. EPA further revised the eight-hour ozone standard to 7.5 pphm. On March 12, 2009, CARB submitted its recommendations for area designations for the revised federal eight-hour ozone standard. The recommendations are based on ozone measurements collected during 2006 through 2008. It was recommended that the SDAB be classified as nonattainment. The U.S. EPA will issue final area designations no later than March 2010 (if there is insufficient information to make these designation, the U.S. EPA will issue designations no later than March 2011). California must then submit an SIP outlining how the state will meet the standards by a date that the U.S. EPA will establish in a separate rule. That date will be no later than three years after the U.S. EPA's final designations (e.g., if final designations are made in 2010, the SIP must be submitted by 2013). The deadline for attaining the standard may vary based on the severity of the problem in the area.

Suspended Particulates ($PM_{2.5}$ and PM_{10})

The SDAB had been classified as an attainment area for $PM_{2.5}$; however, on September 21, 2006, the U.S. EPA revised the NAAQS for particulate matter. The 24-hour $PM_{2.5}$ standard was strengthened from 65 micrograms per cubic meter ($\mu g/m^3$) to 35 $\mu g/m^3$. The existing standards for annual $PM_{2.5}$ of 15 $\mu g/m^3$ remained the same.

States had until December 18, 2007, to make recommendations for areas to be designated attainment and nonattainment under the revised $PM_{2.5}$ standard. It was recommended that the SDAB be designated as an attainment (State of California 2007a). The U.S. EPA will make the final designations by late 2009 and those designations will become effective in April 2010. For areas designated as non-attainment, State Implementation Plans (SIP) for meeting the new standard will be due three years after the designations. States must meet the standards by April 2015 with a possible extension to April 2020.

The U.S. EPA also revised the standards for PM_{10}. Due to a lack of evidence linking health problems to long-term exposure to coarse particle pollution, the agency revoked the new annual PM_{10} standard (effective December 17, 2006) and the existing federal standard for PM_{10} was retained.

Other Criteria Pollutants

The SDAB is in attainment for the NAAQS for all other criteria pollutants.

State Regulations

The U.S. EPA allows the states the option to develop their own ambient air quality standards provided they are at least as stringent as the federal standards. The California

Air Resource Board (CARB) has set more stringent limits on six of the seven criteria pollutants in the California Ambient Air Quality Standards (CAAQS). The standards are shown in Table 2.2-1.

The SDAB is a non-attainment area for the state $PM_{2.5}$ standard (State of California 2005). With regard to the CAAQS, the SDAB is currently classified as a nonattainment area for O_3 and PM_{10}. The SDAB is in attainment for the CAAQS for all other criteria pollutants.

Assembly Bill (AB) 2595, known as the California Clean Air Act, became effective on January 1, 1989, and requires that districts implement regulations to reduce emissions from mobile sources through the adoption and enforcement of transportation control measures and (South Coast Air Quality Management District [SCAQMD] 2003):

- Demonstrate the overall effectiveness of the air quality program;
- Reduce nonattainment pollutants at a rate of five percent per year, or include all feasible measures and expeditious adoption schedule;
- Ensure no net increase in emissions from new or modified stationary sources;
- Reduce population exposure to severe nonattainment pollutants according to a prescribed schedule;
- Include any other feasible controls that can be implemented, or for which implementation can begin, within 10 years of adoption of the most recent air quality plan; and
- Rank control measures by cost-effectiveness.

Toxic Air Contaminants

The public's exposure to toxic air contaminants (TACs) is a significant public health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (AB 1807: Health and Safety Code sections 39650-39674). The Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

In April 2005, the CARB published the "Air Quality and Land Use Handbook: A Community Health Perspective." The handbook makes recommendations directed at protecting sensitive land uses while balancing a myriad of other land use issues (e.g., housing, transportation needs, economics). It notes that the handbook is not regulatory or binding on local agencies and recognizes that application takes a qualitative approach. As reflected in the CARB handbook, there is currently no adopted standard for the significance of health effects from mobile sources. Therefore, the CARB has provided guidelines for the siting of land uses near heavily traveled roadways. Of pertinence to this study, the CARB guidelines indicate that siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day should be avoided when possible.

As an ongoing process, the CARB will continue to establish new programs and regulations for the control of diesel particulate emissions as appropriate. The continued development and implementation of these programs and policies will ensure that the public exposure to diesel particulate matter will continue to decline.

State Implementation Plan

The SIP is a collection of documents that set forth the state's strategies for achieving air quality standards. The San Diego Air Pollution Control District (SDAPCD) is the local agency responsible for preparing and implementing the portion of the SIP applicable to the SDAB. The SDAPCD adopts rules, regulations, and programs to attain state and federal air quality standards, and appropriates money (including permit fees) to achieve the objectives of the SIP.

Local Regulations

The SDAPCD prepared the 1991/1992 Regional Air Quality Strategy (RAQS) in response to the requirements set forth in AB-2595. The draft was adopted, with amendments, on June 30, 1992 (County of San Diego 1992). Attached as part of the RAQS are the transportation control measures (TCM) for the air quality plan prepared by SANDAG in accordance with AB-2595 and adopted by SANDAG on March 27, 1992, as Resolution Number 92-49 and Addendum. The required triennial update of the RAQS and corresponding TCM was adopted on December 12, 1995, 1998, 2001, and 2004. The RAQS and TCM plan set forth the steps needed to accomplish attainment of state and federal ambient air quality standards.

The SDAPCD has also established a set of rules and regulations initially adopted on January 1, 1969, and periodically reviewed and updated. The rules and regulations define requirements regarding stationary sources of air pollutants and fugitive dust.

Global Climate Change Regulations

The Coordinating Committee on the Ozone Layer was established by the United Nations Environment Program (UNEP) in 1977, and UNEP's Governing Council adopted the World Plan of Action on the Ozone Layer. Continuing efforts led to the signing in 1985 of the Vienna Convention on the Protection of the Ozone Layer. This resulted in the creation of the Montreal Protocol on Substances That Deplete the Ozone Layer (Montreal Protocol), an international treaty designed to protect the stratospheric ozone layer by phasing out production of ozone depleting substances (ODSs). The treaty was adopted on September 16, 1987 and went into force on January 1, 1989; and has been revised numerous times since, most recently in 1999.

Similar to the events that led to the Montreal Protocol, to address growing concern about global climate change, 191 countries including the United States joined an international treaty known as the United Nations Framework Convention on Climate Change (UNFCCC). The UNFCCC recognizes that the global climate is a shared resource that can be affected by industrial and other emissions of GHG, and that set an overall framework for intergovernmental efforts to tackle the challenges posed by global climate change. Under this treaty, governments gather and share information on GHG emissions, national policies and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial

and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change. The UNFCCC entered into force on March 21, 1994. However, this treaty generally lacked powerful, legally binding measures.

The Kyoto Protocol (Protocol) was adopted in December 1997. The Kyoto Protocol shares the UNFCCC's objective, principles, and institutions, as it significantly strengthens the UNFCCC by committing industrialized countries to individual, legally binding targets to limit or reduce their GHG emissions. Only parties to the UNFCCC that have also become parties to the Protocol are bound by the Protocol's commitments. More than 161 countries, constituting 55 percent of global emissions, are under the protocol. Although former U.S. Vice President Al Gore symbolically signed the Protocol in 1998, the Protocol has not been formally adopted by the U.S. Senate, as is required.

In 1993, the U.S. developed the Climate Change Action Plan (CCAP). The CCAP consists of initiatives that involve all economic sectors and aim at reducing all significant GHG. The CCAP, backed by federal funding, cultivates cooperative partnerships between the government and the private sector to establish flexible and cost-effective ways to reduce GHG emissions within each sector. The CCAP encourages investments in new technologies, but also relies on previous actions and programs focused on saving energy and reducing emissions.

With regard to the transportation sector, the national Corporate Average Fuel Economy (CAFE) standards determine the fuel efficiency of certain vehicle classes in the U.S. After no changes since 1990, in 2007 the CAFE standards were increased for new light-duty vehicles to 35 miles per gallon (mpg) by 2020. In May 2009, President Obama announced plans to increase these CAFE standards to 35.5 mpg by 2016. With improved gas mileage, fewer gallons of transportation fuel would be combusted to travel the same distance, thereby reducing nationwide GHG emissions associated with vehicle travel.

The State of California has a number of policies and regulations that are either directly or indirectly related to GHG emissions. Only those most relevant to land use development projects are included in this discussion.

California Code of Regulations, Title 24, is the California Building Code. Part 6 of Title 24 is the Energy Efficiency Standards for Residential and Nonresidential (also known as the California Energy Code). This code, originally enacted in 1978 in response to legislative mandates, establishes energy efficiency standards for residential and non-residential buildings in order to reduce California's energy consumption. The Code is updated periodically to incorporate and consider new energy efficiency technologies and methodologies as they become available. The most recent amendments to the Code are dated September 2008, hence known as "2008 Title 24," but became effective January 1, 2010. The current 2008 Title 24 requires energy savings of 15-35 percent above the former 2005 Title 24. The reference to 2005 Title 24 is relevant in that many of the State's long-term energy and GHG reduction goals identify energy saving targets relative to 2005 Title 24. By reducing California's energy consumptions, emissions of GHG may also be reduced.

Part 11 of Title 24 is the California Green Building Standards Code, referred to as CALGreen. This code was added to Title 24 in 2009 as a voluntary requirement. The 2010 version of CALGreen will take effect January 2011 and will institute mandatory

minimum environmental performance standards for all buildings. Relevant to GHG emissions reductions, it requires a minimum 20 percent reduction in potable water use and provides incentives for green building design which could reduce energy demand and resulting GHG emissions associated with electricity generation.

With regard to transportation GHG emissions, California Assembly Bill (AB) 1493 (also referred to as Pavley or the California Light-Duty Vehicle Greenhouse Gas Standards) was enacted on July 22, 2002. It required the CARB to develop and adopt regulations to lower GHG emissions from passenger vehicles and light duty trucks to the maximum extent technologically feasible, beginning with the 2009 model year. CARB adopted regulations in 2004, but due to litigation and delays from the U.S. EPA was not granted authority to proceed until June 2009. With this action, it is expected that the new regulations (Pavley I and II) will reduce GHG emissions from California passenger vehicles by about 18 percent statewide. These reductions are to come from improved vehicle technologies such as small engines with superchargers, continuously variable transmissions, and hybrid electric drives.

Executive Order (EO) S-3-05, signed by Governor Schwarzenegger on June 1, 2005, established the following GHG emission reduction targets for the state of California:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020 reduce GHG emissions to 1990 levels;
- By 2050 reduce GHG emissions to 80 percent below 1990 levels.

In response to EO S-3-05, the California legislature passed Assembly Bill 32 (AB 32), the "California Global Warming Solutions Act of 2006," in 2006. It required the CARB to adopt rules and regulations that would reduce statewide GHG emissions to 1990 levels by 2020. In order to assess the scope of the reductions needed to return to 1990 emissions levels, CARB first estimated 2020 business-as-usual (BAU) GHG emissions. These are the GHG emissions that would be expected to occur in the absence of any state GHG reduction measures. After estimating that statewide 2020 BAU GHG emissions would be 596 metric tons, CARB then developed a Scoping Plan that identified measures to reduce BAU emissions by approximately 174 metric tons by 2020. Major reductions are to accrue from measures affecting energy and transportation (particularly on-road vehicles).

Another key vehicle emission reduction measure identified in the CARB Scoping Plan besides Pavley is the Low Carbon Fuel Standard (LCFS). Signed as EO S-01-07 by Governor Schwarzenegger on January 18, 2007, it directs that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. CARB approved the LCFS as a discrete early action item. EO S-01-07 also instructs the CalEPA to coordinate activities between the University of California, the California Energy Commission, and other state agencies to develop and propose a draft compliance schedule to meet the 2020 target.

Also identified in the CARB Scoping Plan to address vehicle emissions is the Regional Transportation-Related GHG Targets measure. This measure identifies policies to reduce transportation emissions through changes in future land use patterns and community design, as well as through improvements in public transportation, all of which are intended to reduce VMT. By reducing VMT, vehicle GHG emissions would be

reduced. This measure is linked to Senate Bill (SB) 375, which directs that regional emissions targets be established for passenger vehicles by SANDAG in its regional transportation plan as part of the Sustainable Communities Strategy (SCS). CARB expects that this measure will reduce transportation-related GHG emissions by about 5 million metric tons or 3 percent of the total needed statewide reductions.

Existing Air Quality

As stated above, the project area is within the SDAB. Air quality at a particular location is a result of the kinds and amounts of pollutants being emitted both into the air locally and throughout the basin coupled with the dispersal rates of pollutants within the region. The major factors affecting pollutant dispersion are wind speed and direction, the vertical dispersion of pollutants, which is affected by inversions, and the local topography.

Air quality is commonly expressed as the number of days in which air pollution levels exceed state standards set by the CARB and federal standards set by the U.S. EPA (see Table 2.2-1). The concentration of pollutants within the SDAB is measured at 10 stations maintained by the SDAPCD and the CARB. Table 2.2-2 summarizes the number of days per year during which state and federal standards were exceeded in the SDAB during the years 2003 to 2007. The station nearest the Project Site which is most representative of the air quality near the Project Site and measures a full range of pollutants is the Escondido – East Valley Parkway monitoring station, located approximately 15 miles south of the Project Site. Table 2.2-3 provides a summary of measurements of O_3, CO, PM_{10}, and $PM_{2.5}$ collected at the Escondido – East Valley Parkway monitoring station for the years 2003 through 2007.

Ozone

Ozone, or smog, is the primary source of air pollution in the SDAB. Nitrogen oxides and hydrocarbons, known as reactive organic gases (ROGs), are known to be the chief "precursors" of ozone. These compounds react in the presence of sunlight to produce ozone. Because sunlight plays such an important role in the formation of smog, it is at its highest concentration during the daytime in summer months. About half of these smog-forming pollutants come from automobiles (County of San Diego 2004). Population growth in San Diego has resulted in a large increase in the number of automobiles operating on area roadways.

Not all of the ozone within the SDAB is derived from local sources. Under certain meteorological conditions, such as during Santa Ana wind events, ozone and other pollutants are transported from the South Coast Air Basin (Los Angeles) and combine with ozone formed from local emissions sources to produce elevated ozone levels in the SDAB.

As discussed above, in order to address adverse health effects due to prolonged exposure, the U.S. EPA phased out the national one-hour ozone standard and replaced it with the more protective eight-hour ozone standard. The former national one-hour ozone standard was not exceeded at the Escondido – East Valley Parkway monitoring station during the five-year period of 2003 to 2007. The stricter state standard for ozone was exceeded at the Escondido – East Valley Parkway monitoring station three days in 2003, two days in 2004, one day in 2005, and three days in 2006 (State of California 2008b).

According to SANDAG, on average approximately 42 percent of the days that had ozone concentrations over the state standard between 1987 and 1994 were attributable to pollution transported from the Los Angeles area (SANDAG 1994:249-250). Local agencies can control neither the source nor the transportation of pollutants from outside the SDAB. The SDAPCD's policy, therefore, has been to control local sources effectively enough to reduce locally produced contamination to clean air standards. Through the use of air pollution control measures outlined in the RAQS, the SDAPCD has effectively reduced ozone levels in the SDAB; however, the SDAB remains designated a nonattainment area for both national and state standards for Ozone.

Carbon Monoxide

The SDAB is classified as a state and federal attainment area for CO (County of San Diego 1998). Until 2003, no violations of the state standard for CO had been recorded in the SDAB since 1991, and no violations of the national standard had been recorded in the SDAB since 1989. As seen in Table 2.2-2, both the federal and state CO standards were exceeded in the County on one day in 2003, October 28, a day when major wildfires were raging throughout the County. This exceedance was likely caused by the wildfires and would be considered beyond the control of the SDAPCD. Such an event would be covered under the U.S. EPA's Natural Events Policy, which provides for the exclusion of air quality data attributable to uncontrollable natural events (e.g., volcanic activity, wildland fires, and high wind events). Therefore, notwithstanding this day of nonattainment, the SDAB remains in attainment for CO.

Small-scale, localized concentrations of CO above the state and national standards are called "CO hot spots." These have the potential to occur at intersections with stagnation points, such as those that occur on major highways and heavily traveled and congested roadways.

PM_{10}

PM_{10} is a particulate matter with an aerodynamic diameter of 10 microns or less. Ten microns is about one-seventh of the diameter of a human hair. Particulate matter is a complex mixture of very tiny solid or liquid particles composed of chemicals, soot, and dust. Sources of PM_{10} emissions in the SDAB consist mainly of activities that disturb the soil including travel on roads and construction, mining, or agricultural operations, dust suspended by vehicle traffic, as well as secondary aerosols formed by reactions in the atmosphere. Other sources include windblown dust, salts, brake dust, and tire wear (County of San Diego 1998).

As of 2003, the national standards for PM_{10} had never been exceeded in the SDAB. The U.S. EPA has designated the SDAB unclassifiable for PM_{10}. In 2003, the federal PM_{10} standard was exceeded twice in the SDAB. These two exceedances result in a calculated number of days that the federal standard was exceeded of approximately nine days for the year (see Table 2.2-2). The first exceedance occurred on October 29, 2003, at a time when major wildfires were raging throughout the county. The second exceedance occurred on November 23, 2003, during high winds which caused large amounts of ash from the previous fires to be resuspended. Like the exceedance of the CO standard, these exceedances were likely caused by or were a subsequent result of the wildfires and would be beyond the control of the SDAPCD pursuant to the U.S. EPA's Natural Events Policy. Thereafter, the federal PM_{10} standard was exceeded in the

SDAB on October 13, 2005 and again on October 21, 2007. These exceedances result in a calculated number of days that the federal standards were exceeded of approximately six days for 2005 and 2007 (see Table 2.2-2).

The stricter state 24-hour standard was exceeded five days in 2003, one day in 2004, one day in 2006, and two days in 2007 (State of California 2008b). These exceedances resulted in a calculated number of days that the state standard was exceeded of 30.7 days in 2003, 6.1 days in 2004, 5.8 days in 2006, and 11.5 days in 2007.

In conclusion, the SDAB remains in attainment under national standards, but is considered a non-attainment area under state standards for PM_{10}.

$PM_{2.5}$

Airborne, inhalable particles with aerodynamic diameters of 2.5 microns or less ($PM_{2.5}$) have been recognized as a pollutant requiring regular monitoring. Federal regulations required that $PM_{2.5}$ monitoring begin January 1, 1999 (County of San Diego 1999). The Escondido – East Valley Parkway monitoring station is one of five stations in the SDAB that monitors $PM_{2.5}$. The 24-hour $PM_{2.5}$ standard in effect was exceeded once in 2003, once in 2004, and twice in 2007. The SDAB was initially classified as a non-attainment area; however, it was subsequently reclassified as an attainment area for the $PM_{2.5}$ standard (U.S. EPA 2004c). The SDAB is a non-attainment area for the state $PM_{2.5}$ standard (State of California 2005).

As discussed above, the $PM_{2.5}$ standard has been revised. For the new particulate standard, state recommendations for area designations were due to the U.S. EPA by December 18, 2007, and the U.S. EPA will make the final designations by November 2009. It was recommended that the SDAB be designated as an attainment area for the revised standards (State of California 2007b). This is also the EPA's intended designation for the SDAB.

Other Criteria Pollutants

The national and state standards for NO_2, SO_2, and lead are being met in the SDAB and the latest pollutant trends suggest that these standards will not be exceeded in the foreseeable future.

Greenhouse Gases (GHGs)

There are numerous GHGs, both naturally occurring and artificial. Table 2.2-4 summarizes some of the most common. Of the gases listed in Table 2.2-4, carbon dioxide, methane, and nitrous oxide are produced by both natural and anthropogenic (human) sources. The remaining gases, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6), are the result of human processes.

Details relating to the calculation of GHGs are found in the Global Climate Change Report attached to the EIR as Appendix D-2. The increase in the earth's temperature is expected to have wide ranging effects on the environment. Although global climate change is anticipated to affect all areas of the globe, there are numerous implications of direct importance to California. Statewide average temperatures are anticipated to increase by between 3 and 10.5° F by 2100. Some climate models indicate that this

warming may be greater in the summer than in the winter. This could result in widespread adverse impacts to ecosystem health, agricultural production, water use and supply, and energy demand. Increased temperatures could reduce the Sierra Nevada snowpack and put additional strain on the region's water supply. In addition, increased temperatures could result in lower inversion levels leading to a decrease in air quality. It is important to note that even if GHG emissions were to be eliminated or dramatically reduced, it is projected that the effect of those emissions would continue to affect global climate for centuries.

2.2.2 Guidelines for the Determination of Significance

Air Quality

For the purposes of this EIR, the basis for the determination of significance for Guidelines 1 through 4 is the County of San Diego Guidelines for Determination of Significance, Air Quality, adopted July 30, 2007. Additionally, the threshold for ROG was obtained from Chapter 6 of the CEQA Air Quality Handbook of the SCAQMD (SCAQMD 1993) and the threshold for $PM_{2.5}$ was obtained from the SCAQMD Final Methodology to Calculate $PM_{2.5}$ and $PM_{2.5}$ Significance Thresholds (SCAQMD 2006). A project will have a significant adverse environmental impact related to air quality if the project would:

1. Conflict with or obstruct the implementation of the San Diego RAQS and/or applicable portions of the SIP.

2. Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation.

    a. Result in emissions that exceed 250 pounds per day of NOx, or 75 pounds per day of VOCs.

    b. Result in emissions of carbon monoxide of 550 pounds per day, and when totaled with the ambient concentrations will exceed a 1-hour concentration of 20 parts per million (ppm) or an 8-hour average of 9 ppm.

    c. Result in emissions of PM2.5 that exceed 55 pounds per day.

    d. Result in emissions of PM10 that exceed 100 pounds per day and increase the ambient PM10 concentration by 5 micrograms per cubic meter (5.0 µg/m3) or greater at the maximum exposed individual.

    e. Result in emissions of ROG, as a precursor to Ozone, that exceed 75 pounds per day.

3. Expose sensitive receptors (including, but not limited to, schools, hospitals, resident care facilities, day-care centers and project residents) to substantial pollutant concentrations.

    a. Place sensitive receptors near CO "hotspots" or creates CO "hotspots" near sensitive receptors.

b. Result in exposure to TACs resulting in a maximum incremental cancer risk greater than 1 in 1 million without application of Toxics-Best Available Control Technology or a health hazard index greater than one would be deemed as having a potentially significant impact.

4. Expose considerable number of persons to objectionable odors.

Global Climate Change

Based on Appendix G of the CEQA Guidelines, the County of San Diego has determined that a proposed project would have a significant adverse environmental impact related to greenhouse gas emissions if the project would:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

These thresholds address the potential cumulative impacts that an individual project's GHG emissions could have on greenhouse gas emissions. Threshold number one is measured by the degree to which a project is consistent with AB 32/SB375. In the absence of an adopted local Climate Action Plan, the County relies on conformance to statewide planning efforts.

As identified above, AB 32, and the related EO S-3-05, established the statewide GHG emission target of achieving 1990 GHG emissions levels by 2020. AB 32 also directed CARB to identify the GHG reduction measures needed to reduce 2020 business-as-usual (BAU) emissions to the target 1990 emissions level. In response, CARB developed a BAU 2020 Forecast of statewide GHG emissions that would occur in the absence of AB 32's mandated reductions, based on growth factors applied to past and present GHG emissions inventories (CARB 2008a). CARB then developed a Climate Change Scoping Plan which identified the GHG reduction measures necessary to reduce BAU 2020 emissions to 1990 levels, an approximate 30 percent reduction across all sectors statewide (CARB 2008b).

A more specific regional GHG inventory and projection of countywide emissions was prepared by the University of San Diego School of Law Energy Policy Initiative Center that took into account the unique characteristics of the San Diego region. Based on this inventory and 2020 emissions projections, it was concluded that countywide GHG emissions needed to be reduced by 33 percent below BAU in order to achieve 1990 emissions levels by 2020 (EPIC 2008).

Therefore, to demonstrate that the Proposed Project would not impede the implementation of AB 32, the Proposed Project must demonstrate how its 2020 GHG emissions would be reduced to 33 percent below projected BAU 2020 emissions. BAU 2020 emissions are generally defined as the emissions that would have occurred in the absence of AB 32's mandated reductions. More specific to project development proposals, BAU emissions are defined as those that would be generated through development compliant with the 2005 Title 24 standards, water conservation and waste diversion standards established in current regulations, and vehicle fleet characteristics reflecting existing engine and fuel technologies. Thus, BAU emissions do not account for

recent updates to the Title 24 energy standards, pending updates to the plumbing code, pending implementation of the California Green Building Code, nor recent regulations mandating near-future improvements in vehicle fuel mileage, GHG emissions reductions and low-carbon vehicle fuels.

2.2.3 Analysis of Project Effects and Determination as to Significance

RAQS/SIP Impacts (Guideline 1)

A project would result in a significant air quality impact if the project obstructs or conflicts with implementation of the San Diego RAQS or applicable portion of the SIP.

The RAQS and the SIP rely on the local adopted plans for their projections and forecasts, which determine compliance for individual projects. SANDAG forecasts for San Diego County indicate that from 2008 to 2030, the number of housing units in the Fallbrook CP Area will increase by 41 percent, or 6,346 units (SANDAG 2006, 2008). The current Fallbrook CP designates the Project Site as Specific Plan Area and Multiple Rural Use, allowing up to 262 dwelling units. The Proposed Project could result in construction of up to 886 dwelling units. Because the densities included in the Proposed Project are not consistent with the existing, adopted San Diego County General Plan and the Fallbrook CP, they were not considered in the development of the RAQS for the SDAB. Therefore, impacts associated with conflicts with the RAQS and the SIP would be **significant (AQ-1)**.

Air Quality Standards (Guideline 2)

Air quality impacts would be significant if the Proposed Project results in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation. Impacts relating to CO and particulate matter concentrations are discussed under Sensitive Receptors (Guideline 3).

Emissions due to implementation of the Proposed Project were calculated using the URBEMIS 2007 computer program (Rimpo and Associates 2007). The URBEMIS 2007 program is a tool used to estimate air emissions resulting from land development projects in the state of California. The model addresses emissions from three basics sources: construction sources (short-term impacts resulting from fugitive dust, equipment exhaust, and indirect effects associated with construction workers and deliveries); area sources (e.g., fireplaces, natural gas heating, etc.); and operation related sources (e.g., traffic). Details relating to the modeling parameters and calculation data used in the URBEMIS 2007 program have been included in the technical study attached as Appendix D-1. The outcome was compared to SDAPCD Air Quality Impact Analysis (AQIA) screening levels shown in Table 2.2-5.

Construction Source Emissions

Heavy-duty construction equipment is usually diesel powered. In general, emissions from diesel powered equipment generally produce less CO and less ROGs than gasoline powered engines, but contain more NO_X, SO_X, and particulate matter (PM_{10} and $PM_{2.5}$). Diesel fuel is also not leaded. Construction activity can also result in the release VOC, a variety of toxins that appear in paint coatings and finishes.

Site grading volumes associated with construction of the Proposed Project would be balanced on-site and there would be no import or export of soil. The URBEMIS 2007 computer program assumes that construction would begin in January 2012 and last until 2025 and divides construction into seven phases: demolition, mass site grading, fine site grading, trenching, paving, building construction, and architectural coatings. Table 2.2-6 summarizes the lengths of each construction phase and the assumed numbers and pieces of equipment used for each phase.

Table 2.2-7 shows the projected maximum daily emission levels for each criteria pollutant due to construction of the Proposed Project. SDAPCD rules and regulations require the use of standard dust and emission control measures during grading operations. These standard measures are listed below and considered part of the Proposed Project design. As such they were included in the URBEMIS 2007 model.

The emission levels summarized in Table 2.2-7 are the maximum emissions for each pollutant allowed during different phases of construction. Because each phase would not necessarily occur simultaneously, these levels represent a worst-case scenario. As also shown in Table 2.2-7, with incorporation of the standard construction measures listed below, maximum daily construction emissions of NO_X (Guideline 2(a)), CO (Guideline 2(b)), $PM_{2.5}$ (Guideline 2(c)), PM_{10} (Guideline 2(d)), or ROG (Guideline 2(e)) are projected to be **less than significant.**

a. All unpaved construction areas shall be sprinkled with water or other acceptable SDAPCD dust-control agents at least three times daily and during dust-generating activities to reduce dust emissions. Additional watering or acceptable SDAPCD dust-control agents shall be applied during dry weather or windy days until dust emissions are not visible.

b. Apply soil stabilizers to inactive areas.

c. A 15-mile-per-hour speed limit on unpaved surfaces shall be enforced.

d. On dry days, dirt and debris spilled onto paved surfaces shall be swept up immediately to reduce re-suspension of particulate matter caused by vehicle movement. Approach routes to construction sites shall be cleaned daily of construction-related dirt in dry weather.

e. Disturbed areas shall be hydroseeded, landscaped, or developed as quickly as possible and as directed by the County and/or SDAPCD to reduce dust generation.

To determine the Proposed Project's potential emissions relating to VOC (Guideline 2(b), the SCAB emission data and the SCAQMD rules regarding architectural VOC content were used. Specifically, the SCAQMD rules require the use of low VOC content paint as follows: residential interior coatings are required to have a content less than or equal to 50 grams per liter, residential exterior coatings a content less than or equal to 100 grams per liter, and non-residential exterior and interior coatings a content less than or equal to 250 grams per liter.

As shown in Table 2.2-7, if the Proposed Project does not conform to low VOC content architectural coating, construction related emissions of VOC would be **significant (AQ-2)**.

On-site Operation and Area Source Emissions

The Proposed Project would result in operation related emissions from traffic and on-site source emissions from activities such as natural gas fireplaces, and landscaping maintenance activities[1]. Among other parameters used in the URBEMIS 2007 model, basic assumptions for the evaluation of these emissions include: build-out of the Proposed Project would occur in 2025; the Proposed Project would generate 8,740 average daily trips (LOS Engineering 2009); and all of the residential units would have natural gas fireplaces.

Future retail uses are proposed within the Campus Park project located adjacent to the Proposed Project. URBEMIS 2007 assumes that retail uses located within 0.5 mile of the Proposed Project would reduce trips by two percent. Buses could also serve the project area, further reducing vehicle trips. These measures were taken into account for calculating operational emissions.

The total average daily emissions resulting from vehicular traffic and on-site activities for the Proposed Project are shown in Table 2.2-8. As seen, emissions of NO_X and VOCs (Guideline 2(a)), CO (Guideline 2(b)), $PM_{2.5}$ (Guideline 2(c)) are not projected to violate any air quality standard; however, emissions of PM_{10} (Guideline 2(d)) and ROG (Guideline 2(e)) are anticipated to exceed the significance thresholds during both summer and winter months. In order to reduce these emission levels the Proposed Project promotes walking, bicycle riding, or horseback riding as alternative forms of transportation to motorized vehicles by including the following features into the specific plan:

- Complete sidewalk coverage in the project area
- Street trees to provide shade throughout the project area
- Internal trail system with connections to a regional system
- Bike routes with paved shoulders to most major destinations
- Mixed residential uses and routes that are visually interesting
- Pedestrian and bicyclist safety through lighting, signalization and signage, bike lanes (as appropriate), and crosswalks

Despite these design considerations, on-site operational and source emissions of ROG and PM_{10} will continue to violate air quality standards. Therefore, impacts associated with these pollutants would be **significant (AQ-3).**

[1] The on-site WWTP is not expected to be a source of pollutant emissions; the WWTP is expected to be run on electricity with diesel generators standing by only in the case of emergency.

Sensitive Receptors (Guideline 3)

Carbon Monoxide Hotspots

Air quality impacts would be significant if the Proposed Project exposes sensitive receptors (including, but not limited to, schools, hospitals, resident care facilities, day-care centers, and project residents) to substantial pollutant concentrations.

Small-scale, localized concentrations of CO greater than the state and national standards have the potential to occur near stagnation points of heavily traveled intersections. These "CO hot spots" can occur when projects contribute traffic to area intersections. "CO hot spots" almost exclusively occur near intersections operating at a LOS E or worse when in combination with high traffic volumes on neighboring roadways. The SDAB is in attainment of both the federal and state CO standards, and background CO concentrations are also below federal and state allowable limits.

A "CO hot spot" analysis was performed using California Line Source Model (CALINE; Caltrans 1989) and emission rates calculated by EMission FACtors (EMFAC; State of California 2002). The model, prepared in accordance with the Transportation Project-Level Carbon Monoxide Protocol (Caltrans Protocol) established by Caltrans (Garza et al. 1997) is included in Appendix D-1. Traffic volumes, intersection and roadway configurations, and speeds were provided by the traffic report (LOS Engineering 2009). The specific procedure followed is detailed in Appendix B of the Caltrans Protocol.

For near-term conditions, the micro-scale "CO hot spot" analysis was performed at four intersections within the project area: SR-76 at the I-15 northbound and southbound ramps, SR-76 at Horse Ranch Creek Road, and Old Highway 395 at Pala Mesa Drive. These intersections were chosen because they will operate at LOS F experiencing some of the highest traffic volumes of all the intersections examined in the project traffic report (LOS Engineering 2009). All other intersections in the project vicinity are projected to operate at LOS D or better or have lower traffic volumes and delay times than the analyzed intersections. Therefore, CO concentrations at other intersections would be less than concentrations at these analyzed intersections. The basic configuration of the intersections and the receptor locations for a typical intersection are illustrated in Figure 2.2-1.

Table 2.2-9 shows that estimates of one-hour CO concentrations at the intersections range from 6.5 to 7.2 ppm and the eight-hour CO concentrations range from 4.6 to 5.0 ppm. These one-hour CO concentrations are below the 20 ppm state standard and the 35 ppm national standard, and these eight-hour CO concentrations are below the state's 9 ppm standard. Therefore, impacts associated with "CO hotspots" (Guidelines 2(b) and 3(a)) would be **less than significant**.

Diesel-Fired Particulate Matter

Diesel-fired particulate matter has been identified as a TAC. The health risks associated with diesel particulate matter are those related to long-term exposures (i.e., cancer and chronic effects). Long-term health risk effects are generally evaluated for an exposure period of 70 years (i.e., lifetime exposure).

A health risk evaluation was conducted to assess the potential for illness due to exposure to diesel exhaust particulate matter based on Part IV of the *Air Toxics Hot Spots Program Risk Assessment Guidelines* maximum diesel particulate concentration was calculated by the SCREEN3 computer program (which conservatively does not account for particulate settling) and child and adult breathing rates from Part IV of the *Air Toxics Hot Spots Program Risk Assessment Guidelines* were assigned. The assessment results in a cancer risk of 7.7 in one million for children and 5.1 in one million for adults. Details of the inhalation doses and calculations are included in the air quality technical report included as Appendix D-1 of the EIR.

This SDAPCD Rule 1210 considers an excess cancer risk of one in one million to be a quantifiable risk, while a risk of ten in one million is the level of risk at which the APCD requires public notification. Additionally, the County of San Diego considers the unit health risk guideline of significance to be ten in one million with the use of Toxic-Best Available Control Technology (T-BACT).

On July 26, 2007, CARB adopted the in-use, off-road diesel vehicle regulation to reduce diesel PM and NO_x emissions from in-use heavy-duty diesel equipment (State of California 2007b). The regulation requires any person who owns or operates off-road diesel equipment to apply exhaust retrofits to capture pollutants and to quickly re-power heavy polluting fleets with newer, cleaner engines. The compliance date for large fleets (greater than 5,000 horsepower) is 2010. By complying with the in-use, off-road diesel vehicle regulation, construction equipment would be considered applying T-BACT and the threshold of ten in one million would apply. The Proposed Project would result in cancer risks of 7.7 in one million and 5.1 in one million, less than the applied threshold. Should the construction fleet not meet these in-use, off-road diesel vehicle regulations, impacts associated with exposure to TACs (Guideline 3(b)) would be **significant (AQ-4).**

Toxic Air Emissions

With regard to toxic air emission, the Proposed Project lies outside of the land use avoidance guidelines established by the CARB. The nearest heavily traveled roadways to the Project Site are I-15 and SR-76. The traffic report indicates that year 2030 traffic volumes for I-15 and SR-76 in the project vicinity are projected to be 254,000 ADT and 42,500 ADT, respectively (LOS Engineering 2009). Future traffic on SR-76 adjacent to the Project Site, which is currently characterized by a rural environment, is approximately one half of the 50,000 ADT guideline cited above for a rural roadway. I-15 is more than 1,500 feet from the nearest proposed development. Consequently, the development envisioned by the Proposed Project lies well outside of the land use avoidance guidelines established by the CARB, and therefore, impacts are **less than significant**.

Odors (Guideline 4)

Air quality impacts would be significant if the Proposed Project generates objectionable odors or place sensitive receptors next to existing objectionable odors, which will affect a considerable number of persons or the public. Assessing odor impacts depends on such variables as wind speed, wind direction and the sensitivity of receptors to different odors. The WWTP is proposed to be located in the southern most portion of the site, adjacent to SR-76 and proposed residences.

Odor control would be provided to reduce any potential impacts to the surrounding areas. The preliminary treatment building, equalization basins, and solids dewatering facilities within the WWTP are common places where odors can be generated. These structures would be enclosed and the air would be conveyed to either wet scrubbers or activated carbon odor control units. Pursuant to Section 6300 of the County of San Diego Zoning Ordinance odor control units would be designed to treat odorous air from within treatment structures so not to emit matter causing unpleasant odors which are perceptible by the average person at or beyond the lot line of the WWTP. The WWTP would be located within relative proximity to residential areas; therefore, odor treatment units would be required to provide a dilution ratio of one volume of odorous air to eight volumes of clean air. The treatment structures for which odor control would be provided are the inlet pump station, preliminary treatment building, equalization basin, and solids handling building. Objectionable levels of odors are not expected within the other treatment structures. Wastewater treatment processes such as aeration and disinfection basins that are not enclosed within buildings would be covered.

Additionally, the Proposed Project intends to use recycled water for on-site irrigation. This process entails the removal of solid material through a treatment process within the WWTP. This recycled water would be used to irrigate the 49.3 acres of existing agricultural land. Recycled water is used regularly throughout the San Diego region and is not associated with odor impacts. Therefore, odor impacts (Guideline 4) associated with the WWTP and use of recycled water would be **less than significant**.

Global Climate Change (Guideline 5)

A significant air quality impact related to global climate change would occur if the Proposed Project would interfere with the State's ability to achieve the 2020 GHG reduction goals and strategies identified in AB 32\EO S-3-05 and not reduce its GHG emissions by 33 percent compared to BAU (as defined in the CARB BAU 2020 Forecast). The analysis below includes an emissions assessment from both construction and operational sources and a qualitative impact assessment based on CARB recommendations, as well as a discussion of measures that have been incorporated into the project design that would reduce GHG emissions. Emissions were calculated for BAU and Proposed Project conditions. BAU is considered to be development according to the energy efficiency standards established in the 2005 Title 24, the energy code in effect at the time BAU emissions were projected.

The three primary GHGs that would be emitted by the Proposed Project are CO_2, CH_4, and N_2O. These GHGs have varying amounts of GWP. As shown in Table 2.2-4, the 100-year GWP potential for CO_2, CH_4, and N_2O are 1, 21, and 310, respectively. GHG emission factors are summarized below in Table 2.2-10.

TABLE 2.2-10
GHG EMISSION FACTORS

Gas	Vehicle Emission Factors (pounds/gallon)[1]	Electricity Generation Emission Factors (pounds/MWh)[2]	Natural Gas Combustion Emission Factors (pound/million ft^3)[3]
Carbon Dioxide	19.564	1,340	120,000
Methane	0.00055	0.0111	2.3
Nitrous Oxide	0.0002	0.0192	2.2

[1]SOURCE: BAAQMD 2006.
[2]SOURCE: U.S. DOE 2002.
[3]SOURCE: U.S. EPA 1998.

Construction Emissions

Construction GHG emissions would result from heavy construction equipment, worker vehicle miles traveled (VMT), and water usage. Emissions of CO_2 during construction of the Proposed Project were calculated using the URBEMIS 2007 computer program (Rimpo and Associates 2007). The Proposed Project would emit 9,169 pounds per day of CO_2 during each year from 2012 through 2016 during grading of the Project Site, and approximately 25,890 pounds per day of CO_2 during each year from 2017 through 2024 when operating under BAU conditions. This is equivalent to 1,518 metric tons per year from 2012 through 2016 and 4,286 metric tons per year from 2017 through 2024. As discussed below under Solid Waste, the Proposed Project would recycle construction materials such as wood palettes and spools, and scrap lumber, metals, and concrete as much as possible, thus decreasing these BAU emissions. However, these reductions cannot be readily quantified at this time.

Operational Emissions

Operational sources of GHG emissions include transportation, energy (electricity and natural gas), water use and solid waste.

Transportation

BAU vehicle emissions were estimated using the emission factors developed by the Bay Area Air Quality Management District (BAAQMD) and the estimated VMT per day estimated by the URBEMIS 2007 computer program for the Proposed Project. The estimated VMT was based on the Proposed Project's generation of 8,740 ADT (LOS Engineering 2009). The URBEMIS 2007 computer program models VMT based on ADT using average vehicle fleet mix, fuel type, and engine load parameters for a given project type and size. The Proposed Project is residential and the vehicle population would likely consist of passenger cars and light trucks. The U.S. EPA estimates that the average fuel economy for passenger cars is 23.9 miles per gallon (mpg) and the average fuel economy for light trucks is 17.4 mpg (U.S. EPA 2005). To be conservative, a fuel economy of 17.4 mpg was used and multiplied by the estimated daily VMT of 87,374 obtained from the URBEMIS model to calculate vehicle emissions. Vehicle emissions associated with BAU conditions would thus generate 16,393.23 metric tons of CO_2 Eq per year.

It should also be noted that fuel economy is likely to improve in future years in accordance with the federal CAFE Standards, thus potentially reducing GHG emissions

associated with VMT. Also in future years, statewide vehicular GHG emissions would be further reduced through mandatory regulations on vehicle manufacture and vehicle fuels. These are the AB 1493 Pavley Vehicle GHG Standards and the Low Carbon Fuel Standards, identified in the CARB Scoping Plan to reduce overall statewide GHG emissions by 18 percent and 9 percent respectively. A third CARB measure, the Vehicle Efficiency Measure, is estimated to reduce statewide GHG emissions by another 2.5 percent. Altogether, these state and federal regulations would reduce vehicle emissions by 2020 by approximately 30 percent (See CARB Scoping Plan Table 2 reproduced as Table 2 in *Meadowood Global Climate Change Technical Analysis* technical report attached to this EIR as Appendix D-2).

The Proposed Project incorporates the following project-specific measures into the project design related to transportation and motor vehicle use that would further contribute to reductions in emissions from vehicles.

- Bike lanes and wide trails and pathways are designed throughout the Proposed Project to promote non-motorized transportation. For example, bicycle riding is encouraged within designated bike lanes along the roadways and a separate 10-foot wide multi use, non-motorized trail along Horse Ranch Creek Road to encourage biking to the town center or to the college campus.

- The design of the Proposed Project encourages residents to walk and bike through their neighborhoods to the on-site school, park and town center, commercial areas, and college located in adjacent proposed projects. For example, Horse Ranch Creek Road which is the main access road to all proposed projects and, as previously discussed, is designed to accommodate non-motorized traffic.

- The Proposed Project will be conditioned to participate, along with the other projects in the vicinity, in the contribution of funds for the acquisition, design, and construction of a future transit node in the location of the I-15/SR-76 quadrant.

Incorporation of these quantifiable reductions into the Proposed Project's calculation of vehicle emissions results in a projected emission of 11,475.26 metric tons of CO_2 Eq per year, 30 percent less than the annual BAU vehicle emissions of 16,393.23 metric tons of CO_2 Eq. (See complete vehicle GHG emissions calculations in Attachment 2 of Appendix D-2.)

Energy Use (Electricity and Natural Gas)

Due to the nature of the electrical grid, it is not possible to predict certainty where electrical power is generated. Therefore, GHG emissions resulting from electricity generation associated with the Proposed Project were estimated using national average emission factors developed by the U.S. Department of Energy (U.S. DOE 2002) and existing electricity consumption rates. In 2006, the average electricity consumption for a residential consumer was 7,080 kilowatt hours per year (kWh) and the average electricity consumption for a commercial consumer was 69,216 kWh per year (U.S. DOE 2006). For the purposes of this analysis, it was assumed that the electricity consumption for the proposed school would be the same as for a commercial consumer. Under BAU conditions, the proposed 844 units and elementary school would consume 6,044,736 kWh (6,044.736 megawatt hours [MWh]) per year. This would result in 3,691.03 metric

tons of CO_2 Eq per year being emitted under BAU conditions. Table 2.2-10 shows the GHG emission factors used for estimating emissions due to electricity generation.

By contrast with BAU, the Proposed Project includes specific design features that would increase energy efficiency compared to BAU by 45 percent and thus substantially reduce BAU GHG emissions associated with electricity consumption. A 45 percent energy improvement compared to BAU is gained through the Proposed Project's participation in the Building Industry Association's California Green Builder (CGB) Program and design that incorporates a 30 percent improvement in energy efficiency above that required in the 2008 Title 24 energy code. Because the 2008 Title 24 energy code contains standards to achieve 15 percent greater energy efficiency than the 2005 Title 24 energy code on which BAU is based, a project design that achieves a 30 percent increase over the 2008 Title 24 energy code energy code results in a 45 percent increase in energy efficiency over the 2005 Title 24 energy code. Resulting electricity emissions from the Proposed Project would be 32,030.07 metric tons of CO_2 Eq per year. It should also be noted that there are legislative and regulatory efforts underway to specifically reduce GHG emissions from electricity generation. Implementation of CARB's Renewable Portfolio Standard requires utilities to purchase 20 percent of their electricity from renewable sources resulting in the reduction of GHG emissions by another 13 percent overall. However, this is not considered in either the BAU or Proposed Project calculations.

BAU GHG emissions resulting from natural gas combustion were estimated using the emission factors developed by the U.S. EPA (1998) and existing natural gas consumption rates. In 2006, the average natural gas consumption rate for a residential consumer was 67,847 cubic feet per year, and the natural gas consumption rate for a commercial consumer was 537,416 cubic feet per year (U.S. DOE 2007). Under BAU conditions, the Proposed Project would consume 57,800,284 cubic feet per year. This would result in 3,165.28 metric tons of CO_2 Eq per year. Factoring in increased energy efficient design, as described below, results in 1,740.90 metric tons of CO_2 Eq per year being emitted by the Proposed Project.

The Proposed Project incorporates the following energy efficiency measures to achieve a 45 percent reduction in energy (electricity and natural gas) compared to BAU:

- Build homes that comply with the U.S. Environmental Protection Agency's Energy Star criteria.

- Beyond what is required, install improved HVAC systems and duct seals; enhanced ceiling, attic, and wall insulation; high-efficiency water heaters; energy-efficient three-coat stucco exteriors; energy-efficient lighting; and high-efficiency window glazing.

- Outdoor and indoor shaded areas have been implemented into the design of the multi-family planning areas to reduce energy use. Large parking lots have been avoided and plantings throughout the site will provide comfortable living spaces, while reducing energy consumption.

- The Proposed Project will minimize site lighting to that necessary for security, safety, and identification.

These energy features would undergo independent third party inspection and diagnostics as part of the CGB verification and commissioning process. Assurance of the Proposed Project's increased energy performance would be demonstrated through the Title 24 Compliance Report process and CGB verification.

Water Use

Water use and energy are closely linked. The provision of potable water to residents consumes large amounts of energy associated with five stages: source and conveyance, treatment, distribution, end use, and wastewater treatment. This inventory estimated that delivered water for the Proposed Project would have an embodied energy of 2,779 kWh/acre foot or 0.0085 kWh/gallon (Torcellini et al. 2003). Under BAU conditions, the Proposed Project would require 728,000 gallons per day. The embodied energy demand associated with this BAU water use was converted to GHG emissions with the same electrical grid coefficients as the other purchased electricity. This would result in 1,250.33 metric tons of CO_2 Eq per year being generated by water use under BAU conditions.

The Proposed Project however incorporates the following water conservation and efficiency measures to achieve a 25 percent reduction in water usage compared to BAU and in addition to what is required by the state plumbing code:

- The Proposed Project shall use either reclaimed water or groundwater to irrigate common areas and retained agricultural groves.

- By utilizing the new stormwater regulations, more efficient irrigation will be used; therefore, reducing the Proposed Project's water demand.

- The Proposed Project shall install low water usage appliances and advanced plumbing systems such as parallel hot water piping or hot water recirculation systems, and fixtures such as ultra-low flow toilets, water-saving showerheads and kitchen faucets, and buyer-optional high-efficiency clothes washers.

- The Proposed Project shall offset the remainder of its delivered water requirement by participating in an offset program. The Proposed Project will be required to develop an off-set program to achieve a net zero project-wide water demand.

Of the BAU 728,000 gpd water demand, the Proposed Project's implementation of water conservation and efficiency measures will reduce the overall demand by approximately 25 percent. The amount of delivered water will be further decreased by utilizing recycled wastewater to irrigate the HOA recreational areas, parks, the elementary school fields, common area slopes and existing avocado groves retained on-site. Presently, the existing avocado and citrus groves are irrigated with groundwater on the property. This same groundwater will continue to be utilized on the retained avocado groves during drier months to supplement recycled water supplies, further reducing the delivered water requirement. Finally, the Proposed Project shall offset the remainder of its delivered water requirement by participating in an offset program with the SDCWA or MWD. The goal of these actions is to achieve a net zero project-wide water demand. For purposes of quantifying GHG emissions from embodied water use, a reduction of 25 percent was

assumed in the Proposed Project calculations, resulting in the Proposed Project's emission of 937.75 metric tons of CO_2 Eq per year.

As a requirement of the voluntary CGB program, projects must demonstrate a minimum 20 percent reduction in water use compared to the current plumbing code requirements. The Proposed Project would exceed this minimum and incorporate design that achieves a 25 percent reduction in water consumption. Assurance of the Proposed Project's increased water conservation would be demonstrated by verifying each plumbing fixture and fitting meets the reduced flow rate or by calculating a 25 percent reduction in the building water use baseline as required through the CGB verification process. This means of demonstrating increased water conservation is identical to the one included in the new CGB Standards code which became effective January 2011 and now comprises Part 11 of Title 24.

Solid Waste

The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, transportation of waste, and disposal. It was assumed that multi-family residential developments would generate 1.2 tons per year per unit, based on development in compliance with current waste management regulations. The Proposed Project under BAU conditions would therefore generate 567.6 tons of solid waste per year. The U.S. EPA's WARM was used to calculate the GHG emissions associated with this volume of solid waste. WARM divides solid waste into many different categories including yard trimmings, paper products, metals, aluminum, glass, food waste, plastics, and other materials. An estimate of the distribution of these materials was obtained from the U.S. EPA (2008). The solid waste associated with the Proposed Project under BAU conditions would generate 342 metric tons of CO_2 Eq per year.

The Proposed Project incorporates the following measures to reduce the generation of solid waste:

- The Proposed Project will meet or exceed the requirements of the County's Construction and Demolition Debris Ordinance (Sections 68.508 through 68.518 of the County Code of Regulatory Ordinances) that requires recycling of 90 per cent of inerts and 70 per cent of other materials.

- Recycling bins as well as trash bins will be provided to each resident.

- The Proposed Project will conform to the applicable County recycling activities.

The reduction in GHG emission from these measures is not readily quantifiable and Proposed Project waste emissions were thus assumed to be the same as those generated under BAU conditions: 342 metric tons of CO_2 Eq per year

Total Greenhouse Gas Emissions

Table 2.2-11 shows the projected GHG emissions, expressed as equivalent CO_2 emissions, resulting from the Proposed Project under BAU conditions compared to the Proposed Project with GHG-reducing design features.

TABLE 2.2-11
SUMMARY OF BAU AND PROPOSED PROJECT GHG EMISSIONS
(metric tons/year)

Emission Source	BAU Total CO_2 Eq	Proposed Project Total CO_2 Eq	Percent Reduction
Electricity Usage Emissions	3,691.03	2,030.07	45%**
Natural Gas Usage Emissions	3,165.28	1,740.90	45%**
Water Usage Emissions	1,250.33	937.75	25%**
Solid Waste Emissions	342.00	342.00	0%
Vehicular Emissions	16,393.23	11,475.26	30%*
Total CO_2 Eq[1]	**24,841.87**	**16,525.98**	**34**%

*Denotes GHG reductions achieved through State measures.
**Denotes GHG reductions achieved through project-specific design features.

As shown in Table 2.2-11, under BAU conditions, the Proposed Project is projected to emit 24,841.87 metric tons of CO_2 Eq per year. However, by implementing increased energy- and water-efficiency performance into the Proposed Project design, resulting GHG emissions would be 34 percent less than BAU GHG emissions for 2020, or 16,525.98 metric tons of CO_2 Eq per year. The Proposed Project's contribution to cumulative statewide GHG emissions would therefore be less than significant.

The California Environmental Quality Act; Addressing Global Warming Impacts at the Local Agency Level (State of California 2008c) provides a list of measures appropriate for minimization of potentially significant effects of global climate change. Many of the Proposed Project design features detailed above are included in this list. Implementation of these project design features will allow the Proposed Project to meet the County's goal of achieving a 33 percent reduction in BAU GHG emissions by 2020, and by extension, the State's ability to achieve its 2020 GHG reduction goals and strategies as identified in AB 32\EO S-3-05. Therefore, the Proposed Project would not impede implementation of AB 32, and global climate change impacts from the Proposed Project would be **less than significant**.

2.2.4 Cumulative Impact Analysis

Because air quality is a regional issue, the cumulative study area for air quality impacts cannot be limited to a defined localized area, but rather include the SDAB as a whole. Therefore impacts to regional plans and policies, such as the RAQS and SIPs, must be considered as part of the cumulative analysis. Additionally, a project will have a significant cumulative impact on air quality if it would result in a cumulatively considerable net increase of any criteria pollutant for which the SDAB is listed as nonattainment under an applicable CAAQS. As previously stated, the SDAB is currently classified as a nonattainment area for PM_{10} and O_3.

RAQS/SIP Impacts (Guideline 1)

As discussed under direct impacts, because the Proposed Project includes densities not currently described in the General Plan or Fallbrook CP, the Proposed Project is not represented in SANDAG growth forecasts nor included in the current RAQS or SIP. Because the entire air basin is affected by project level impacts, the Proposed Project would result in a **significant cumulative impact (AQ-5)**.

Violation of Air Quality Standards (Guideline 2)

Construction-Related Emissions

$PM_{2.5}$ and PM_{10} emissions associated with construction activities generally result in "near field" impacts, generally within one mile or less of the Project Site. The Palomar College, Campus Park and Campus Park West projects are within a one mile radius. These projects, if constructed at the same time as the Proposed Project, could result in a cumulative impact due to particulate emissions. Cumulatively considerable net increases in pollutant emissions during the construction phase would typically happen if two or more projects near each other are simultaneously constructing projects. Although construction of these other projects is beyond the control of the Proposed Project, it is unlikely all will be constructed at the same time. As discussed above, the Proposed Project would be required to implement standard dust control measures during construction as well as conform to SCAQMD regulations for the application of architectural coatings. Therefore, because fugitive dust impacts are localized and all construction sites would be required to adhere to the same regulations, cumulative impacts resulting from $PM_{2.5}$ and PM_{10} emissions from simultaneous construction activity within the project vicinity would be **less than significant**.

As discussed above, construction of the Proposed Project would result in emissions of diesel-fired particulate matter. If neighboring projects were to be constructed at the same time as the Proposed Project, emissions of diesel-fired particulate matter from construction equipment could result in a cumulative impact. Should the construction fleet not meet these in-use off-road diesel vehicle regulations discussed above, impacts associated with exposure to TACs (Guideline 3(b)) would be **significant (AQ-6).**

On-site Operation and Area Source Emissions

Implementation of the Proposed Project will result in the violation of air quality standards related to PM_{10} and ROG. These emissions would continue to be above the significance thresholds despite project design measures. Therefore, the Proposed Project would have a **cumulatively significant impact (AQ-7)**.

Sensitive Receptors (Guideline 3)

CO Hot Spots

A CO "hot spot" impact could result in the vicinity of the Project Site due to traffic from cumulative projects. The TIS identified 95 nearby projects which are anticipated to generate traffic on the same roadways as the Proposed Project. These projects were included in the CO modeling based on the CO "hot spot" evaluation; therefore cumulative impacts associated with traffic emissions would be **less than significant**.

Odors (Guideline 4)

Odor impacts for the Proposed Project would be less than significant. As there is no existing regional cumulative odor issue, the contribution from the Proposed Project would not cause or contribute to a cumulative odor impact. Therefore, cumulative odor impacts would be **less than significant**.

Global Climate Change (Guideline 5)

By implementing increased energy- and water-efficiency performance into the Proposed Project design, resulting GHG emissions would be 34 percent less than BAU GHG emissions for 2020. The Proposed Project's contribution to cumulative statewide GHG emissions would therefore be **less than significant**.

2.2.5 Mitigation Measures Proposed to Minimize the Significant Effects

M-AQ-1/AQ-5: The Proposed Project was not considered in SANDAG growth projections used as a basis for RAQS and the SIP. While the Proposed Project contains smart growth features, which would serve to reduce motor vehicle use, a major goal of the RAQS Transportation Control Measures (TCMs), this would not eliminate this inconsistency with RAQS for the SDAB. This inconsistency can only be rectified when SANDAG updates the RAQS based on the growth projections after the Proposed Project has been approved. Thus impacts would be **significant and unmitigable**.

M-AQ-2: During the architectural coatings painting phase of construction, the applicant shall use interior coatings with a VOC content less than or equal to 50 grams per liter; residential exterior coatings with a content less than or equal to 100 grams per liter; and non-residential exterior and interior coatings with a content less than or equal to 250 grams per liter.

M-AQ-4/AQ-6: To utilize Toxic-Best Available Control Technology (T-BACT) and mitigate for impacts, the applicant shall ensure that 10 percent of the construction fleet uses any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters and/or CARB certified Tier I, II, or III equipment.

M-AQ-3/AQ-7: The Proposed Project design would promote walking, bicycle riding, and horseback riding as alternative forms of transportation to motorized vehicles and would reduce the projected operational emissions. However, this will not completely reduce emissions to a level below significance. No additional feasible mitigation is available, thus impacts would remain **significant and unmitigable**.

2.2.6 Conclusion

Consistency with RAQS/SIP

Implementation of the Proposed Project would conflict with the existing San Diego RAQS and applicable SIP because the density proposed is not consistent with current land use plans and SANDAG housing forecasts (AQ-1 and AQ-5). This represents a significant impact for which there is no available feasible mitigation. Therefore, upon implementation of the Proposed Project, the direct and cumulative impacts will remain significant and unmitigable.

The existing SANDAG forecasts for regional growth are based on the Regional Comprehensive Plan for the San Diego Area (RCP) that was adopted in 2004, stating, "the RCP will function as a 'living' document, evolving over time as specific policies and programs are advanced. It will be updated every few years to reflect the region's accomplishments, add new topics that weren't included in this initial RCP, and address the region's changing needs." The 2007 annual monitoring report finds that the "region continues to experience serious housing affordability problems."

In order to address growth and housing needs, the County of San Diego is in the process of updating its General Plan, which specifically proposes to recognize the Project Site and surrounding areas as a region designated for increased housing. The Proposed Project is still being proposed as designed because, although inconsistent with the current SANDAG forecasts, it will serve to meet the proposed needs of the County General Plan update. In addition to addressing affordable housing, implementation of the Proposed Project would address the need for diversity in housing types.

Construction-Related Emissions

Construction of the Proposed Project would be significant and the applicant is required to use architectural coating with low VOC content and meet T-BACT standards (AQ-2, AQ-4, and AQ-6). Implementation of the mitigation measures discussed above would reduce all direct and cumulative impacts to a level less than significant.

On-site Operation-Related Emissions

Implementation of the Proposed Project would result in on-site traffic and area source emissions greater than the applicable thresholds for ROG, and PM_{10} (AQ-3 and AQ-7). Project design considerations such as complete sidewalk coverage, internal trails, and paved shoulders for bicycle use, would promote walking, bicycle riding, and horseback riding as alternative forms of transportation and reduce traffic and area source emissions. In addition, future retail uses proposed within the Campus Park project and future bus service would further reduce vehicle trips. Even with these design measures, direct and cumulative impacts associated with emissions of ROG, and PM_{10} remain significant and unmitigable based on the URBEMIS 2007 air quality model. This model however, does not include anticipated reductions to air emissions resulting from recent regulations on motor vehicles. These regulations on future motor vehicles would further reduce ROG and PM_{10} emissions, although the reduction cannot be quantified at this time. Otherwise, the only way to reduce these emissions is to reduce the VMT. Therefore, no feasible mitigation exists to reduce the remaining significant impact associated with operational emissions. Proposed alternatives that would result in fewer VMT are discussed in Chapter 5.

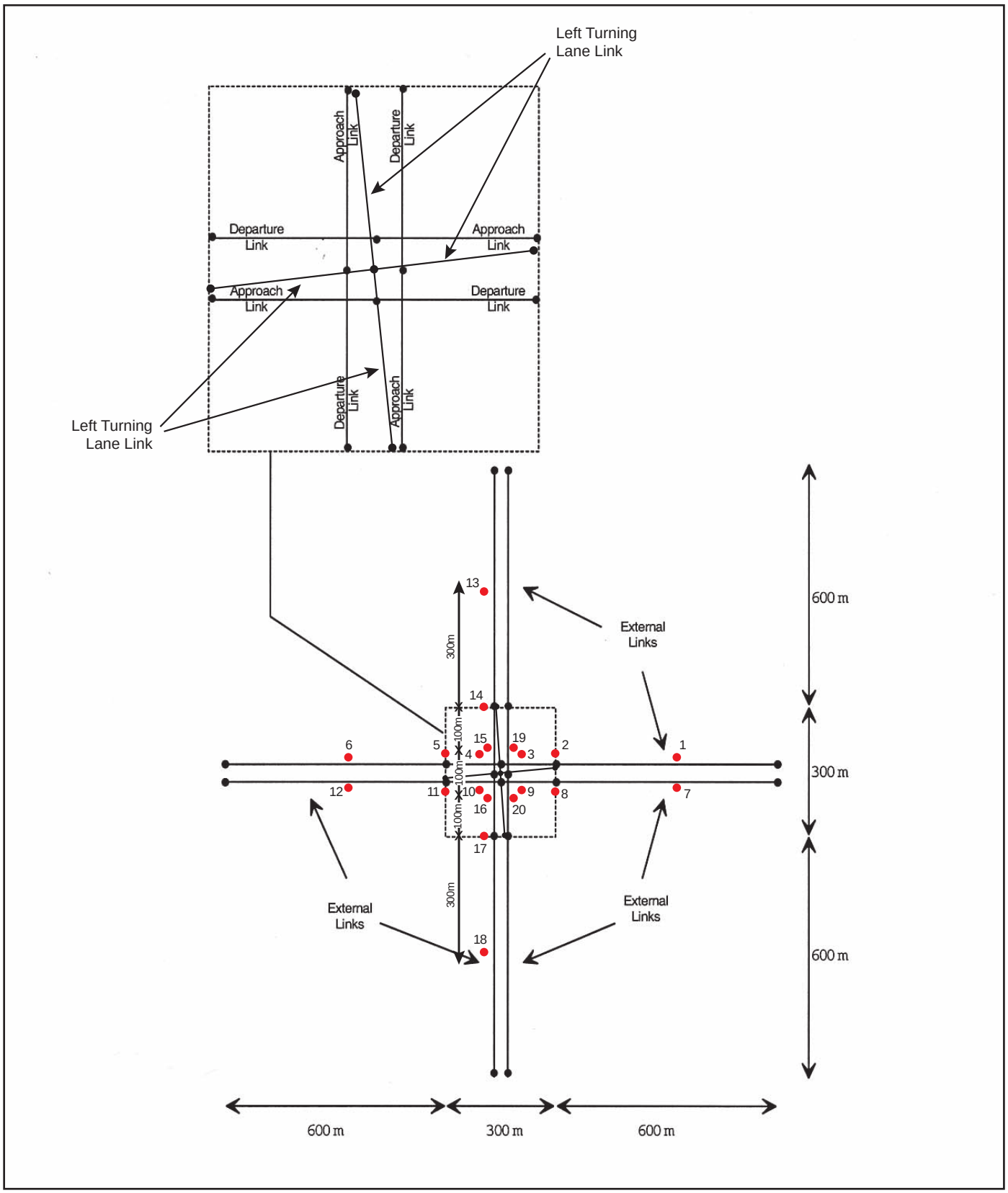
As currently designed, the Proposed Project will allow the County to address some of its current and projected challenges in relation to an increased population that requires affordable housing and diversity of housing types. The Proposed Project and its surrounding area have been targeted in the Draft General Plan Update as a region that could support increased population. The result is that multiple projects are proposing development which will change the existing land usages to urban land usage, increasing air quality related impacts. Although each project will likely provide design measures, like the Proposed Project, both direct and cumulative impacts within the region is

unavoidable. Therefore, significant direct and cumulative impacts will remain. A Statement of Overriding Considerations would be required to be adopted to address this significant and unmitigated impact.

Global Climate Change

A comparison of the Proposed Project relative to BAU was evaluated for significance based on the statewide 2020 goals contained in Assembly Bill (AB) 32 and Executive Order (EO) S-3-05; and in the regional San Diego goal estimated by the San Diego Energy Policy Initiative Center (EPIC) as necessary to meet the statewide/AB 32 goals. The San Diego EPIC regional goal directs that development projects must reduce their GHG emissions by 33 percent compared to BAU.

The Proposed Project incorporates project design features that substantially reduce its demands for energy and water use, resulting in GHG emissions 34 percent below BAU GHG emissions. Specifically, the Proposed Project would design and construct all buildings to achieve 30 percent greater energy efficiency than is required in the current 2008 Title 24 Energy Efficiency Standards, and would design and construct all buildings to achieve a minimum 25 percent greater water conservation/efficiency than is required in the current 2007 plumbing code. The Proposed Project thus incorporates design features adequate to reduce BAU emissions to target levels. With the implementation of these design features, global climate change impacts from the Proposed Project would be less than significant.



● Receptors at 3m from edge of roadway and 1.8m high

● Link end point

FIGURE 2.2-1

Link and Receptor Network For a Single Intersection with Dedicated Left Turn Lanes

RECON

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TABLE 2.2-1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	--	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.07 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM_{10})	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetic Analysis
	Annual Arithmetic Mean	20 µg/m^3		--		
Fine Particulate Matter ($PM_{2.5}$)	24 Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetic Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	15 µg/m^3		
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m^3)	Non-dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Non-dispersive Infrared Photometry (NDIR)
	1 Hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		--	--	--
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Gas Phase Chemilumine-scence	0.053 ppm (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.18 ppm (339 µg/m^3)		--		
Lead[8]	30 days average	1.5 µg/m^3	Atomic Absorption	--	--	High Volume Sampler and Atomic Absorption
	Calendar Quarter	--		1.5 µg/m^3	Same as Primary Standard	
	Rolling 3-Month Average[9]	--		0.15 µg/m^3		
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	--	Ultraviolet Fluorescence	0.030 ppm (80 µg/m^3)	--	Spectrphotomerty (Pararosoaniline Method)
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (365 µg/m^3)	--	
	3 Hour	--		--	0.5 ppm (1300 µg/m^3)	
	1 Hour	0.25 ppm (665 µg/m^3)		--	--	
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer –visibility of 10 miles or more (0.07 – 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		No Federal Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chroma-tography	No Federal Standards		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence	No Federal Standards		
Vinyl Chloride[8]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chroma-tography	No Federal Standards		

TABLE 2.2-1
AMBIENT AIR QUALITY STANDARDS
(CONTINUED)

SOURCE: State of California 2008a.

ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter.

[1]California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter—PM_{10}, $PM_{2.5}$, and visibility reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[2]National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.

[3]Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25º C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25º C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[4]Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

[5]National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

[6]National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[7]Reference method as described by the U.S. EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the U.S. EPA.

[8]The ARB has identified lead and vinyl chloride as “toxic air contaminants” with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[9]National lead standard, rolling 3-month average: final rule signed October 15, 2008.

TABLE 2.2-2
AMBIENT AIR QUALITY SUMMARY – SAN DIEGO AIR BASIN

Pollutant	Average Time	California Ambient Air Quality Standards[a]	Attainment Status	National Ambient Air Quality Standards[b]	Attainment Status[c]	Maximum Concentration					Number of Days Exceeding State Standard					Number of Days Exceeding National Standard				
						2003	2004	2005	2006	2007	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
O_3	1 hour	0.09 ppm	N	N/A	N/A	.125	.129	.113	.121	.134	24	12	16	23	21	1	1	0	0	0
O_3	8 hours	0.07ppm	N	0.08 ppm	N	.103	.095	.089	.100	.092	N/A	N/A	N/A	N/A	50	6	8	5	14	7
CO	1 hour	20 ppm	A	35 ppm	A	12.70	6.90	Na	Na	Na	0	0	Na	Na	Na	0	0	Na	Na	Na
CO	8 hours	9.0 ppm	A	9 ppm	A	10.64	4.11	4.71	3.61	5.18	1	0	0	0	0	1	0	0	0	0
NO_2	1 hour	0.18 ppm*	A	N/A	N/A	.148	.125	.109	.097	.101	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A
NO_2	Annual	0.030 ppm*	N/A	0.053 ppm	A	.019	.017	.015	.017	.015	N/A	N/A	N/A	N/A	N/A	NX	NX	NX	NX	NX
SO_2	1 hour	25 pphm	A	N/A	N/A	.036	.045	Na	Na	Na	0	0	Na	Na	Na	N/A	N/A	N/A	N/A	N/A
SO_2	24 hours	4 pphm	A	14 pphm	A	.020	.016	Na	Na	Na	0	0	Na	Na	Na	0	0	Na	Na	Na
SO_2	Annual	N/A	N/A	3 pphm	A	Na	Na	Na	Na	Na	N/A	N/A	N/A	N/A	N/A	Na	Na	Na	Na	Na
PM_{10}	24 hours	50 $\mu g/m^3$	N	150 $\mu g/m^3$	N	289	138	154	134	394	150.7	174.5	13.1	159.4	159.0	9.2	0	5.8	0	6
PM_{10}	Annual	20 $\mu g/m^3$	N	N/A	N/A	52.6	51.7	28.6	54.1	59	EX	EX	EX	EX	EX	N/A	N/A	N/A	N/A	N/A
$PM_{2.5}$	24 hours	N/A	N/A	35 $\mu g/m^3$	A	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na
$PM_{2.5}$	Annual	12 $\mu g/m^3$	A	15 $\mu g/m^3$	A	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na

SOURCE: State of California 2006, 2008b.
*This concentration was approved by the Air Resources Board on February 22, 2007. New 1-hour and annual concentrations would not have been exceed during the years 2003 through 2007.
[a]California standards for ozone, carbon monoxide (except at Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and PM_{10} are values that are not to be exceeded. Some measurements gathered for pollutants with air quality standards that are based upon 1-hour, 8-hour, or 24-hour averages, may be excluded if the CARB determines they would occur less than once per year on average.
[b]National standards other than for ozone and particulates, and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one.
[c]A = attainment; N = non-attainment; N/A = not applicable; Na = data not available; NX = annual average not exceeded; EX = annual average exceeded.
NOTE: Federal 1 hour ozone standard revoked in SDAB on June 15, 2005
ppm = parts per million, pphm = parts per hundred million, $\mu g/m^3$ = micrograms per cubic meter.
Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

TABLE 2.2-3
SUMMARY OF AIR QUALITY MEASUREMENTS RECORDED
AT THE ESCONDIDO EAST VALLEY PARKWAY MONITORING STATION

Pollutant/Standard	2003	2004	2005	2006	2007
Ozone					
Days State 1-hour Standard Exceeded (0.09 ppm)	3	2	1	3	0
Days Federal 1-hour Standard Exceeded (0.12 ppm)	0	0	0	0	0
Days Federal 8-hour Standard Exceeded (0.08 ppm)	0	2	0	2	0
Days State 8-hour Standard Exceeded (0.07 ppm)	9	9	2	11	5
Max. 1-hr (ppm)	0.105	0.099	0.095	0.108	0.094
Max 8-hr (ppm)	0.083	0.086	0.079	0.096	0.077
Carbon Monoxide					
Days State 8-hour Standard Exceeded (20 ppm)	1	0	0	0	0
Days Federal 8-hour Standard Exceeded (35 ppm)	1	0	0	0	0
Max. 1-hr (ppm)	12.7*	6.3	5.9	5.7	5.2
Max. 8-hr (ppm)	10.64	3.61	3.10	3.61	3.19
Nitrogen Dioxide					
Days State 1-hour Standard Exceeded (0.25 ppm)	0	0	0	0	0
Max 1-hr (ppm)	0.135	0.080	0.076	0.071	0.072
Annual Average (ppm)	0.020	0.018	0.016	0.017	0.016
PM_{10}					
Days State 24-hour Standard Exceeded (50 $\mu g/m^3$)	30.7	6.1	0	5.8	11.5
Days Federal 24-hour Standard Exceeded (150 $\mu g/m^3$)	3.3	0	0	0	0
Max. Daily ($\mu g/m^3$)	179*	57	42	51	68
State Annual Average ($\mu g/m^3$)	32.7	27.3	23.9	24.2	26.9
Federal Annual Average ($\mu g/m^3$)	31.6	27.5	23.9	24.1	26.7
$PM_{2.5}$					
Days Federal 24-hour Standard Exceeded (65 $\mu g/m^3$)	1	1	0	0	2
Max. Daily ($\mu g/m^3$)	69.2	67.3	43.1	40.6	126.2*
Annual Average ($\mu g/m^3$)	14.2	14.1	Na	11.5	13.3

SOURCE: State of California 2006, 2008b.
Na = not available
Lead concentrations in the SDAB have not exceeded the state or federal standard during at least the past 10 years.
*The measurement was taken during the San Diego County forest fire and, therefore, is not an accurate representation of ambient conditions.

TABLE 2.2-4
GLOBAL WARMING POTENTIALS (GWP) AND ATMOSPHERIC LIFETIMES (YEARS) USED IN THE INVENTORY

Gas	Atmospheric Lifetime	100-year GWP[a]
Carbon Dioxide (CO_2)	50-200	1
Methane (CH_4)[b]	12±3	21
Nitrous oxide (N_20)	120	310
HFC-23	264	11,700
HFC-125	32.6	2,800
HFC-134a	14.6	1,300
HFC-143a	48.3	3,800
HFC-152a	1.5	140
HFC-227ea	36.5	2,900
HFC-236fa	209	6,300
HFC-4310mee	17.1	1,300
CF_4	50,000	6,500
C_2F_6	10,000	9,200
C_4F_{10}	2,600	7,000
C_6F_{14}	3,200	7,400
SF_6	3,200	23,900

SOURCE: U.S. EPA 2002.

[a]GWPs used here are calculated over 100-year time horizon.

[b]The methane GWP includes the direct effects and those indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO_2 is not included.

TABLE 2.2-5
SCREENING-LEVEL CRITERIA FOR AIR QUALITY IMPACT ANALYSIS

Pollutant	Total Emissions	
	Lb. Per Hour	Lb. Per Day
Respirable Particulate Matter (PM_{10})	---	100
Oxides of Nitrogen (NOx)	25	250
Oxides of Sulfur (SOx)	25	250
Carbon Monoxide (CO)	100	550
Lead and Lead Compounds	---	3.2
Volatile Organic Compounds (VOCs)*	---	75

*The threshold for VOCs is based on the guideline of significance for reactive organic gases from Chapter 6 of the CEQA Air Quality Handbook of the South Coast Air Quality Management District (SCAQMD 1993). This standard is appropriate because the meteorological data associated with the project is similar to characteristics of the San Coast Air Basin.

TABLE 2.2-6
CONSTRUCTION PARAMETERS

Phase	Length of Phase (Weeks)	Equipment Used	Horse-power	Load Factor	Hours/ Day
Demolition	2	3 Excavators	168.00	0.570	8.0
		2 Rubber Tired Dozers	357.00	0.590	8.0
Mass Site Grading	153	1 Excavator	168.00	0.570	8.0
		1 Grader	174.00	0.610	8.0
		1 Rubber-Tired Dozer	357.00	0.590	8.0
		3 Scrapers	313.00	0.720	8.0
		3 Tractor/Loader/Backhoe	108.00	0.550	8.0
		1 Water Truck	189.00	0.500	8.0
Fine Site Grading	66	1 Excavator	168.00	0.570	8.0
		1 Grader	174.00	0.610	8.0
		1 Rubber-Tired Dozer	357.00	0.590	8.0
		3 Scrapers	313.00	0.720	8.0
		3 Tractor/Loader/Backhoe	108.00	0.550	8.0
		1 Water Truck	189.00	0.500	8.0
Trenching	22	2 Excavators	168.00	0.570	8.0
		1 Other General Indust. Equipm.	238.00	0.510	8.0
		1 Tractor/Loader/Backhoe	108.00	0.550	8.0
Paving	22	1 Paver	100.00	0.620	8.0
		2 Paving Equipment	104.00	0.530	8.0
		2 Roller	95.00	0.560	6.0
Building Construction	385	1 Crane	399.00	0.430	7.0
		3 Forklifts	145.00	0.300	8.0
		1 Generator Set	49.00	0.740	8.0
		3 Tractor/Loader/Backhoe	108.00	0.550	7.0
		1 Welders	45.00	0.450	8.0
Architectural Coatings	53	N/A	N/A	N/A	N/A

SOURCE: Rimpo and Associates 2007.
NOTE: Load Factor = percentage of time equipment uses the full load potential.
N/A = Not Applicable

TABLE 2.2-7
SUMMARY OF WORST-CASE CONSTRUCTION EMISSIONS WITHOUT MITIGATION
(pounds/day)

Year	ROG	NO_x	CO	Sox[1]	PM_{10} Dust	PM_{10} Exhaust	PM_{10}	$PM_{2.5}$ Dust	$PM_{2.5}$ Exhaust	$PM_{2.5}$
2012	10	84	45	0	97	4	100	20	4	24
2013	10	79	42	0	97	4	100	20	3	24
2014	9	73	41	0	97	3	100	20	3	23
2015	9	67	39	0	97	3	100	20	3	23
2016	8	62	38	0	97	3	99	20	3	23
2017	6	30	122	0	1	2	3	0	2	2
2018	6	27	115	0	1	2	3	0	1	2
2019	5	25	108	0	1	1	2	0	1	2
2020	5	23	101	0	1	1	2	0	1	2
2021	4	19	77	0	1	1	2	0	1	1
2022	4	19	77	0	1	1	2	0	1	
2023	4	19	77	0	1	1	2	0	1	1
2024	74	19	77	0	1	1	2	0	1	1
2025	74	0	1	0	0	0	0	0	0	0
SDAPCD Guideline of Significance[2]	75	250	550	250	--	--	100	--	--	55

[1]Emissions calculated by URBEMIS 2007 are for SO_2.
[2]Thresholds for ROG and $PM_{2.5}$ were obtained from the SCAQMD.

TABLE 2.2-8
PROJECT (YEAR 2025) AVERAGE DAILY EMISSIONS TO THE SAN DIEGO AIR BASIN (pounds/day)

Season	Pollutant	Area Source Emission	Operational (Vehicle) Emission	Total Emission	SDAPCD Significance Threshold[2]
Summer	ROG	54	36	**90**	75
	NOx	16	31	47	250
	CO	30	365	395	550
	SOx[1]	0	1	1	250
	PM10	0	143	**143**	100
	PM2.5	0	28	28	55
Winter	ROG	51	33	**84**	75
	NOx	22	46	68	250
	CO	11	361	383	550
	SOx[1]	0	1	1	250
	PM10	0	143	**143**	100
	PM2.5	0	28	28	55

SDAPCD = San Diego Air Pollution Control District
[1]Emissions calculated by URBEMIS 2007 are for SO_2.
[2]Thresholds for ROG and $PM_{2.5}$ were obtained from the SCAQMD.

TABLE 2.2-9
TRAFFIC RELATED CO CONCENTRATIONS
(ppm)*

	SR-76 at I-15 Southbound Ramp		SR-76 at I-15 Northbound Ramp		SR-76 at Pankey Road		Old Highway 395 at Pala Mesa Drive	
Receiver	1-Hour Concentration	8-Hour Concentration	1-Hour Concentration	8-Hour Concentration	1-Hour Concentration	8-Hour Concentration	1-Hour Concentration	8-Hour Concentration
1	7.0	4.9	7.2	5.0	7.0	4.9	6.5	4.6
2	7.2	5.0	7.1	5.0	7.1	5.0	6.5	4.6
3	7.1	5.0	7.1	5.0	7.1	5.0	6.5	4.6
4	7.1	5.0	7.2	5.0	7.1	5.0	6.6	4.6
5	7.1	5.0	7.2	5.0	7.1	5.0	6.5	4.6
6	7.2	5.0	7.2	5.0	7.1	5.0	6.5	4.6
7	7.1	5.0	7.2	5.0	7.1	5.0	6.5	4.6
8	7.1	5.0	7.2	5.0	7.1	5.0	6.5	4.6
9	7.1	5.0	7.2	5.0	7.2	5.0	6.5	4.6
10	7.1	5.0	7.1	5.0	7.1	5.0	6.5	4.6
11	7.1	5.0	7.1	5.0	7.1	5.0	6.5	4.6
12	7.1	5.0	7.0	4.9	7.1	5.0	6.5	4.6
13	6.6	4.6	6.6	4.6	6.7	4.7	6.6	4.6
14	6.7	4.7	6.6	4.6	6.7	4.7	6.7	4.7
15	6.8	4.8	6.7	4.7	6.8	4.8	6.6	4.6
16	6.7	4.7	6.7	4.7	6.8	4.8	6.6	4.6
17	6.7	4.7	6.7	4.7	6.8	4.8	6.6	4.6
18	6.8	4.8	6.6	4.6	6.8	4.8	6.6	4.6
19	6.7	4.7	6.9	4.8	6.8	4.8	6.7	4.7
20	6.7	4.7	6.9	4.8	6.7	4.7	6.7	4.7

*Assumes 6.30 ppm background hourly concentrations.

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2.3 Transportation/Traffic

The following discussion is based on the Traffic Impact Study (TIS) (2009) to evaluate possible traffic impacts for the Proposed Project. The complete traffic study is included in this EIR as Appendix E. For the purpose of the TIS and the traffic impact section of the EIR, the Proposed Project includes 355 single-family detached dwelling units, 503 multi-family dwelling units, a 10.1-acre neighborhood park, and an elementary school. The actual Proposed Project is composed of 355 single-family and 489 multi-family homes. Therefore, the analysis provides a maximum buildout scenario.

2.3.1 Existing Conditions

Existing Roadway Characteristics

The study area, as shown in Figure 2.3-1, has a defined limit of where 50 and 25 peak hour project trips will travel. The 50 peak hour project trip study area is utilized for existing + project, horizon year, and horizon year + project conditions (scenarios where the Proposed Project will add 50 peak hour trips to determine potential direct impacts). The 25 peak hour study area is used for existing, existing + cumulative, and existing + cumulative + project conditions (scenarios where potential cumulative impacts are calculated). The existing transportation conditions are shown on Figure 2.3-2 and described for the larger 25 peak hour study area, which include:

I-15 in the vicinity of the Proposed Project is classified as a *Freeway* on the September 2005 San Diego County Circulation Element map. I-15 from Rainbow Valley Boulevard to Escondido Highway (Old Highway 395) is constructed as an eight-lane divided freeway with a center divider. The posted speed limit is 70 mph along I-15 in the vicinity of the Proposed Project Site.

SR-76 (Pala Road) from Melrose Drive to S. Mission Road is classified as an *Expressway*; from S. Mission Road to I-15 is classified as a *Prime Arterial with bike lanes* and from I-15 to Pala Mission Road is classified as a *Major Road with bike lanes* on the September 2005 San Diego County Circulation Element map. SR-76 is constructed with varying configurations as discussed in the TIS. SR-76, from the I-15 NB Ramp easterly a distance of approximately 1.4 miles, is currently being widened from two to four lanes. This widening is anticipated to be completed before the Proposed Project will request certificates of occupancy. Therefore, the SR-76 segment analyses used two lanes for existing conditions and four lanes for all other scenarios.

SR-76 has two identified widening projects that include the Caltrans SR-76 Middle Project (from approximately Melrose Drive to S. Mission Road) and the Caltrans SR-76 East Project (from approximately S. Mission Road to the I-15 SB Ramp). On October 24, 2008, the SANDAG Board approved the redistribution of funds between SR-76 corridor projects to fully fund the construction phase of the Caltrans SR-76 Middle Project. The estimated completion date for the Caltrans SR-76 Middle Project is 2012. The Caltrans SR-76 East Project has identified TransNet as a funding source and the current estimate of completion is 2015.

Old Highway 395 from Mission Road to Dulin Road is classified as a *Collector with bike lanes* and from Dulin Road to W. Lilac Road is classified as a *Rural Collector with bike lanes* on the September 2005 San Diego County Circulation Element map. Old Highway

395 is generally constructed as a two-lane undivided roadway with a shoulder.

Pankey Road from Stewart Canyon Road to Dulin Road is classified as a *Light Collector* on the September 2005 San Diego County Circulation Element map. From Stewart Canyon Road to a terminus cul-de-sac approximately 0.7 mile to the south, Pankey Road is constructed with approximately 32 feet of pavement. From SR-76 south to Shearer Crossing (connects to Dulin Road), Panky Road is constructed with approximately 40 feet of pavement and one travel lane in each direction.

Stewart Canyon Road from Old Highway 395 to Pankey Road is classified as a *Rural Collector* on the September 2005 San Diego County Circulation Element map. Stewart Canyon Road from Old Highway 395 to Pankey Road is generally constructed as a two-lane undivided roadway within approximately 40 feet of pavement.

Study Area Intersections and Street/State Route Segments

The following are the study area intersections analyzed in the TIS:

1) SR-76 (Pala Road)/Via Monserate
2) SR-76 (Pala Road)/Gird Road
3) SR-76 (Pala Road)/Sage Road
4) SR-76 (Pala Road)/Old Highway 395
5) SR-76 (Pala Road)/I-15 Southbound Ramp
6) SR-76 (Pala Road)/I-15 Northbound Ramp
7) SR-76 (Pala Road)/Pankey Road
8) SR-76 (Pala Road)/Horse Ranch Creek Road – Future Intersection
9) SR-76 (Pala Road)/Rice Canyon Road
10) SR-76 (Pala Road)/Couser Canyon Road
11) Old Highway 395/Pala Mesa Drive
12) Old Highway 395/Stewart Canyon Road
13) Old Highway 395/Reche Road
14) Mission Road/Old Highway 395
15) Mission Road/I-15 SB Ramp
16) Mission Road/I-15 NB Ramp
17) Stewart Canyon Road/Pankey Road
18) SR-76 (Mission Road)/E. Vista Road
19) SR-76 (Mission Road)/North River Road
20) SR-76 (Mission Road)/Olive Hill Road
21) SR-76 (Mission Road)/S. Mission Road
22) SR-76 (Pala Road)/Pala Mission Road

The street/State Route segments within the TIS study area are listed as follows:

1) SR-76 (Mission Road) from E. Vista Way to North River Road
2) SR-76 (Mission Road) from North River Road to Olive Hill Road
3) SR-76 (Mission Road) from Olive Hill Road and S. Mission
4) SR-76 (Pala Road) from S. Mission Road to Via Monserate
5) SR-76 (Pala Road) from Via Monserate to Gird Road
6) SR-76 (Pala Road) from Gird Road to Sage Road
7) SR-76 (Pala Road) from Sage Road to Old Highway 395

8) SR-76 (Pala Road) from Old Highway 395 to I-15 SB Ramp
9) SR-76 (Pala Road) from I-15 SB Ramp to I-15 NB Ramp
10) SR-76 (Pala Road) from I-15 NB Ramp to Pankey Road
11) SR-76 (Pala Road) from Pankey Road to Horse Ranch Creek
12) SR-76 (Pala Road) from Horse Ranch Creek Road to Rice Canyon Road
13) SR-76 (Pala Road) from Rice Canyon Road to Couser Canyon Road
14) SR-76 (Pala Road) from Couser Canyon Road to Pala Mission Road
15) Old Highway 395 from E. Mission Road to Reche Road
16) Old Highway 395 from Reche Road to Stewart Canyon Road
17) Old Highway 395 from Pala Mesa Drive to SR-76 (Pala Road)
18) Stewart Canyon Road from Old Highway 395 to Pankey Road
19) Pankey Road south of Stewart Canyon Road
20) Pankey Road from SR-76 (Pala Road) to Dulin Road

Study Area Freeway Segments

The following freeway segment volumes (from Caltrans web site documenting year 2007 volumes) were analyzed as part of this study:

1) I-15 from Rainbow Valley Boulevard to Mission Road
2) I-15 from Mission Road to SR-76 (Pala Road)
3) I-15 from SR-76 (Pala Road) to Escondido Highway (Old Highway 395)

Existing Levels of Service

Level of Service (LOS) designations comprise a professional industry standard by which the operating condition of a given roadway segment or intersection is measured. LOS is defined using letter designations from “A” to “F,” wherein LOS A represents the best operating conditions and LOS F represents the worst operating conditions. LOS A facilities are characterized as having free-flowing traffic conditions with no restrictions on maneuvering or operating speeds; traffic volumes are low and travel speeds are high. LOS F facilities are characterized as having highly unstable, congested conditions and low operating speeds.

The volume-to-capacity ratio (V/C) is a measure of traffic demand on a facility (expressed as volume; V) compared to its traffic-carrying capacity (C). In evaluating the performance of a roadway segments under the existing conditions, V/C is considered together with LOS.

Traffic volumes on study area segments and intersections during AM and PM peak hours are based on daily roadway traffic counts and peak period manual traffic counts at intersections. The freeway segment analysis is based on 2007 Caltrans volume data.

The existing roadway conditions are shown in Figure 2.3-2. The existing AM, PM, and average daily trip (ADT) volumes are shown on Figure 2.3-3.

As shown in Table 2.3-1, under existing conditions, all study intersections operate at LOS D or better with the exception of:

1) SR-76 (Pala Road) / Via Monserate (Minor Leg LOS F AM & PM)
2) Old Highway 395 / Reche Road (Minor Leg LOS E PM)
3) SR-76 (Mission Avenue) / E. Vista Way (LOS E AM)
4) SR-76 (Mission .Avenue) / North River Road (LOS E AM)

As shown in Table 2.3-2A and 2.3-2B, under existing conditions, all study area state routes and roadway segments operate at LOS D or with the exception of:

1) SR-76 (Mission Avenue.) from E. Vista Way to North River Road (LOS F AM & PM)
2) SR-76 (Mission Avenue.) from North River Road to Olive Hill Road (LOS F AM & PM) SR-76 (Mission Avenue.) from Olive Hill Road to S. Mission Road (LOS F AM & PM)
3) SR-76 (Pala Road) from S. Mission Road to Via Monserate (LOS E AM & LOS F PM)
4) SR-76 (Pala Road) from Via Monserate to Gird Road (LOS E AM & LOS F PM)
5) SR-76 (Pala Road) from I-15 SB Ramp to I-15 NB Ramp (LOS E AM & LOS F PM)
6) SR-76 (Pala Road) from I-15 NB Ramp to Pankey Road (LOS E PM)
7) SR-76 (Pala Road) from Pankey Road to Horse Ranch Creek Road (LOS E PM)
8) SR-76 (Pala Road) from Horse Ranch Creek Road to Rice Canyon Road (LOS E PM)
9) SR-76 (Pala Road) from Rice Canyon Road to Couser Canyon Road (LOS E PM)
10) SR-76 (Pala Road) from Couser Canyon Road to Pala Mission Road (LOS F PM)

The unacceptable LOS for SR-76 (Pala Road) from I-15 NB Ramp to Pankey Road and from Pankey Road to Horse Ranch Creek Road is calculated to change to acceptable LOS when the current widening of SR-76 from two to four lanes is completed.

The LOS calculated for the freeway segments are shown in Table 2.3-3; all segments within the study area operate at LOS C or better, with the exception of I-15 from Rainbow Valley to Mission Road (southbound) which operates at LOS D in the AM.

2.3.2 Guidelines for the Determination of Significance

For the purpose of this EIR, the basis for the determination of significance is the County's Guidelines for the Determination of Significance, Traffic, December 5, 2007. All of the guidelines are derived from accepted state and local standards for significant impacts based on levels of service.

A direct impact would occur when the significance criteria is exceeded. If the proposed project exceeds the values provided in the table below, then the individually proposed project would result in a direct traffic impact. Specific improvements to mitigate direct impacts must be identified.

A cumulative impact would occur when two conditions are met: 1) build-out of all near-term projects result in a cumulative traffic impact; 2) the amount of traffic generated by the individual proposed project contribute to that cumulative impact. One trip has been

determined to be cumulatively considerable by the County. Both conditions must be met for an individual project to result in a cumulative traffic impact. If the traffic generated from all the near-term projects (cumulative projects) would result in a cumulative traffic impact, then condition one is met. If the total amount of traffic generated exceeds the values provided in the table below, then condition two is met and the individually proposed project would result in a cumulative traffic impact. Fair-share contributions toward cumulative impacts may only be provided when a specific project and schedule for completion of the project has been identified.

Road Segments

A project would result in a direct or cumulative traffic impacts if the following significance criteria are exceeded:

Measures of Significant Project Impacts to Congestion
Allowable Increases on Congested Roads

Road Segments

	2-Lane Road	4-Lane Road	6-Lane Road
LOS E	200 ADT	400 ADT	600 ADT
LOS F	100 ADT	200 ADT	300 ADT

Intersections

A project would result in a direct and or cumulative impact if the following significance criteria are exceeded:

Measures of Significant Project Impacts to Congestion
Allowable Increases on Congested Intersections

Intersections

	Signalized	Unsignalized
LOS E	Delay of 2 seconds	20 peak hour trips on a critical movement
LOS F	Delay of 1 second, or 5 peak hour trips on a critical movement	5 peak hour trips on a critical movement

2.3.3 Analysis of Project Effects and Determination as to Significance

Trip Generation

Project Trip Generation

As stated in Section 2.3 above, the TIS is based on a maximum buildoutanalysis using a greater number of ADTs than would be generated by implementation of the Proposed Project. Proposed Project trip generation was calculated using SANDAG trip rates from the *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, April 2002. Based on SANDAG trip rates, the Proposed Project is calculated to generate 8,740 ADT, 965 AM peak hour trips (365 inbound and 600 outbound), and 864 PM peak hour trips (574 inbound and 290 outbound) as shown in Table 2.3-4.

School Trip Generation

The Bonsall Unified School District will determine whether it will use the 12.7-acre site for elementary school purposes. An alternative use for the site will be 42 residential units if the District elects not to build an elementary school on the 12.7-acre site. The daily traffic generation for the elementary school is 1,116 ADT while the daily traffic generation for 42 single-family units is 420 ADT (10 ADT/unit x 42 unts). This traffic study documents and analyzes the elementary school scenario due to its higher overall traffic generation.

Project Traffic Distribution and Assignment

Project trips were distributed based on a SANDAG Series 11 traffic model. Because of the proximity of the Proposed Project to other proposed projects including Campus Park (mixed-use), Campus Park West (mixed-use), Meadowood (residential with a school), and Palomar College, the area would contain complementary land uses and create the equivalent of a small town. It is assumed that some Proposed Project traffic would remain within the internal roadway system. Thus, the SANDAG traffic model inherently accounted for this “internal capture rate.” However, for direct project impacts, the analysis did not apply an internal capture rate (therefore assumed to be zero) because only residential, school, and park land uses would be built by the Proposed Project. Near-term (cumulative) and long-term (horizon year 2030) distribution scenarios assume that the entire vicinity, complete with retail/commercial/and office land uses, would experience a 30 percent internal capture rate. Details of the County and Caltrans’ concurrence of the traffic modeling including calculations of internal capture rates, traffic distribution scenarios and assignment analysis are included in Section 3.3 of the TIS.

The long-term residential distribution is shown in Figure 2.3-4 with the assignment shown in Figure 2.3-5. The combined long-term residential, school, and park assignments are shown in Figure 2.3-6.

Construction Traffic Generation

Proposed Project construction is anticipated to occur in three phases over a period of ten to fifteen years. During this period, construction traffic may contribute to temporary traffic delays in the vicinity of the Proposed Project. As discussed within Chapter 1, the Proposed Project includes the preparation of a construction and grading phasing plan which includes a Traffic Control Plan. This plan would be approved by the County Department of Public Works prior to start of any clearing or grading activities, and would be implemented during construction of the Proposed Project. Traffic control measures may include the use of flagmen, traffic cones, advanced notification signage, and pedestrian/equestrian detours. Construction hours also would be defined in the Traffic Control Plan and would likely be outside of peak traffic periods

Furthermore, as previously stated in Chapter 1, the Proposed Project is designed to have the earthwork balanced. Therefore, there is no anticipated need for import or export of soils, reducing the number of required truck trips to and from the Project Site during construction.

Existing + Project

This scenario is considered to be a conservative analysis in that no internal capture rate is applied to account for the time period when the residential is constructed and occupied before the surrounding proposed commercial developments are to be constructed.

If the Proposed Project applicant is first to proceed (between Campus Park and Palomar College), then the applicant will construct the following:

- Horse Ranch Creek Road from SR-76 to the southern terminus of Pankey Road located south of Stewart Canyon Road;
- Pala Mesa Drive from Old Highway 395 to SR-76;
- Street R (AKA Pankey Place) from Pala Mesa Drive to Horse Ranch Creek Road;

and the intersections of:

- Horse Ranch Creek Road at SR-76;
- Horse Ranch Creek Road at Pala Mesa Heights Drive (aka Baltimore Oriole Road);
- Horse Ranch Creek Road at Street B (aka Harvest Glen Lane);
- Horse Ranch Creek Road at Street A;
- Horse Ranch Creek Road at Street Q (aka School/Park Access);
- Horse Ranch Creek Road at Street R (aka Pankey Place); and
- Pala Mesa Drive at Street R (aka Pankey Place).

Additionally, SR-76 from I-15 easterly a distance of approximately 1.4 miles is currently being widened from two to four lanes. Because this improvement is anticipated to be completed before the Proposed Project will reach occupancy, SR-76 from I-15 to Horse Ranch Creek Road was analyzed as four lanes under existing + project conditions. The proposed improvements by the applicant if first to proceed, as used in this existing + project analysis scenario are shown in Figure 2.3-7. The peak hour intersection volumes and daily traffic volumes for the existing + project scenario are shown in Figure 2.3-8. All LOS calculations are included in Appendix K of the TIS.

Intersections

As shown in Table 2.3-5, under existing + project conditions, the following intersection is expected to operate at unacceptable LOS:

1) Intersection of Old Highway 395 / Reche Road (LOS F PM)

The Proposed Project would, therefore, have a **direct and significant impact** on one study area intersection (**TR-1**).

Street Segments

As shown in Table 2.3-6A and 2.3-6B, under existing + project conditions, the following two state route/street segments are expected to operate at unacceptable LOS:

1) SR-76 from Via Monserate to Gird Road (LOS E AM and LOS F PM)
2) SR-76 from I-15 SB Ramp to I-15 NB Ramp (LOS E AM & LOS F PM)

The Proposed Project would therefore have a **direct and significant impact** on these two study area street segments (**TR-2**).

The applicant proposes to construct Horse Ranch Creek Road in accordance with the General Plan Update Circulation Element "Boulevard" standards and has received approval of a request for a modification to a road standard. Therefore, the street segment operations shown in Table 2.3-6A reflect a Boulevard capacity for Horse Ranch Creek Road.

Freeway Segments

As shown in Table 2.3-7**,** there would be no direct impacts to freeway segments in the existing + project scenario.

2.3.4 Cumulative Impact Analysis

Cumulative Projects

Cumulative projects were accounted for through a general plan summary approach where SANDAG provided a modified Series 10 Year 2030 model developed for the County's General Plan Update traffic forecast analysis. The modified Series 10 model analysis accounts for the 95 cumulative projects listed in Section 3.5, Table 18 of the TIS.

The criteria for identifying the cumulative projects included:

1. Non-daily traffic generators were not included (i.e., cell sites),

2. Geographic boundary based on proximity to study roadways and roadways that will feed toward or away from our project location (i.e., radius around project and buffer around adjacent transportation corridors),

3. Reviewed available cumulative projects within this study area. Withdrawn or denied cumulative projects were removed.

4. Casino projects that are not listed in the DPLU/DPW cumulative traffic binders were researched and included.

5. These cumulative projects are considered to be cumulatively considerable from a CEQA standpoint as they represent major projects contributing to the traffic study

boundary. This includes tentative parcel maps within the study boundary to provide a comprehensive approach, and

6. Projects requiring GPAs (i.e. Meadowood, Campus Park West, Warner Ranch, Pala Mesa Resort) and Casino projects were confirmed as being included in the Cumulative Map model by reviewing the list of inconsistent and Casino projects included in Appendix L of the TIS.

A summary of the cumulative projects is included in Table 2.3-8. The combined cumulative project volumes are shown on Figure 2.3-9.

Roadway improvements already under construction (widening of SR-76 from two to four lanes or roadway improvements included as part of the Proposed Project (access to the project via Horse Ranch Creek Road, Pala Mesa Drive, Street "R" and all associated internal intersections) were incorporated into the analysis. Other roadway improvements are planned by the Pala Tribe and Caltrans; however, these improvements were not incorporated into the analysis. Documents describing the planned improvements by other cumulative project applicants are included in Appendix M of the TIS.

Of significant importance is that this analysis includes all of the known cumulative project traffic but does not include the necessary roadway mitigation measures required to support all of the other cumulative projects. Based on the size of some of the other cumulative projects, significant roadway improvements would most likely be forthcoming to satisfy CEQA requirements.

Existing + Cumulative Projects

This analysis is based on near-term conditions (consisting of existing + known cumulative projects). Existing + cumulative LOS calculations are included in Appendix N of the TIS.

Intersections

The peak hour intersection volumes and daily traffic volumes for this scenario of existing + cumulative projects are shown in Figure 2.3-10. As shown in Table 2.3-9, under existing + cumulative conditions, all study area intersections were calculated to operate at acceptable LOS D with the exception of:

1) SR-76 (Pala Road) / Via Monserate (LOS F AM & PM)
2) SR-76 (Pala Road) / Gird Road (LOS F PM)
3) SR-76 (Pala Road) / Sage Road (LOS F AM & PM)
4) SR-76 (Pala Road) / Old Highway 395 (LOS F AM &PM)
5) SR-76 (Pala Road) / I-15 SB Ramp (LOS F AM & PM)
6) SR-76 (Pala Road) / I-15 NB Ramp (LOS E AM & LOS F PM)
7) SR-76 (Pala Road.) / Pankey Road (LOS F AM & PM)
8) SR-76 (Pala Road) / Rice Canyon Road (LOS F AM & PM)
9) SR-76 (Pala Road) / Couser Canyon Road (LOS F AM & PM)
10) Old Highway 395 / Pala Mesa Drive (LOS F AM & PM)
11) Old Highway 395 / Stewart Canyon Road (LOS F AM & PM)
12) Old Highway 395 / Reche Road (LOS F AM & PM)
13) Mission Road / Old Highway 395 (LOS F PM)
14) Mission Road / I-15 Southbound Ramp (LOS E AM & PM)

15) Mission Road / I-15 Northbound Ramp (LOS F PM)
16) SR-76 (Mission Avenue) / E. Vista Way (LOS F AM & PM)
17) SR-76 (Mission Avenue) / North River Road (LOS F AM & PM)
18) SR-76 (Mission Avenue) / Olive Hill Road (LOS F AM & PM)
19) SR-76 (Mission Avenue) / S. Mission Road (LOS E AM & LOS F PM)

Street/State Route Segments

The roadway conditions assumed the implementation of planned roadway improvements documented by other cumulative project applicants as shown in Figure 2.3-11. As shown in Table 2.3-10A and 2.3-10B, under existing + cumulative conditions, all street and State Route segments were calculated to operate at acceptable LOS D with the exception of:

1) Old Highway 395 from E. Mission Road to Reche Road (LOS F)
2) Old Highway 395 from Reche Road to Stewart Canyon Road (LOS F)
3) Old Highway 395 from Pala Mesa Dr to SR-76 (LOS F)
4) SR-76 (Pala Road) from E. Vista Way to North River Road (LOS F AM & PM)
5) SR-76 (Pala Road) from North River Road to Olive Hill Road (LOS F AM & PM)
6) SR-76 (Pala Road) from Olive Hill Road to S Mission Road (LOS F AM & PM)
7) SR-76 (Pala Road) from S Mission Road to Via Monserate (LOS F AM & PM)
8) SR-76 (Pala Road) from Via Monserate to Gird Road (LOS F AM & PM)
9) SR-76 (Pala Road) from Gird Road to Sage Road (LOS F AM & PM)
10) SR-76 (Pala Road) from Sage Road to Old Highway 395 (LOS F AM & PM)
11) SR-76 (Pala Road) from I-15 SB Ramp to I-15 NB Ramp (LOS F AM & PM)
12) SR-76 (Pala Road) from Horse Ranch Creek Road to Rice Canyon Road (LOS F AM & PM)
13) SR-76 (Pala Road) from Rice Canyon Road to Couser Canyon Road (LOS F AM & PM)
14) SR-76 (Pala Road) from Couser Canyon Road to Pala Mission Road (LOS E AM & LOS F PM)

Freeway Segments

As shown in Table 2.3-11, all study area freeway segments would operate at LOS D or better in the existing + cumulative scenario.

Existing + Cumulative + Project

This scenario accounts for the addition of Proposed Project traffic onto existing + cumulative traffic for AM, PM, and ADT conditions. The peak hour intersection volumes and daily traffic volumes for this scenario of existing + cumulative + project conditions are shown in Figure 2.3-12.

Intersections

As shown in Table 2.3-12, under existing + cumulative + project conditions the Proposed Project would contribute to a significant cumulative impact at the following intersections:

1) SR-76 (Pala Road) / Via Monserate (LOS F AM & PM)
2) SR-76 (Pala Road) / Gird Road (LOS F PM)

3) SR-76 (Pala Road) / Sage Road (LOS F AM & PM)
4) SR-76 (Pala Road) / Old Highway 395 (LOS F AM &PM)
5) SR-76 (Pala Road) / I-15 SB Ramp (LOS F AM & PM)
6) SR-76 (Pala Road) / I-15 NB Ramp (LOS E AM & LOS F PM)
7) SR-76 (Pala Road) / Pankey Road (LOS F AM & PM)
8) SR-76 (Pala Road) / Rice Canyon Road (LOS F AM & PM)
9) SR-76 (Pala Road) / Couser Canyon Road (LOS F AM & PM)
10) Old Highway 395 / Pala Mesa Drive (LOS F AM & PM)
11) Old Highway 395 / Stewart Canyon Road (LOS F AM & PM)
12) Old Highway 395 / Reche Road (LOS F AM & PM)
13) Mission Road / Old Highway 395 (LOS F PM)
14) Mission Road / I-15 SB Ramp (LOS E AM & PM)
15) Mission Road / I-15 NB Ramp (LOS F PM)
16) SR-76 (Mission Avenue) / E. Vista Way (LOS F AM & PM)
17) SR-76 (Mission Avenue) / North River Road (LOS F AM & PM)
18) SR-76 (Mission Avenue) / Olive Hill Road (LOS F AM & PM)
19) SR-76 (Mission Avenue) / S. Mission Road (LOS E AM & LOS F PM)

Therefore, the Proposed Project would have a **cumulatively significant impact** on these study area intersections (**TR-3**).

Street/ State Route Segments

As shown in Tables 2.3-13A and 2.3-13B, under existing + cumulative + project conditions the project would contribute to significant cumulative impacts for the following street/State Route segments:

1) Old Highway 395 from E. Mission to Reche Road (LOS F)
2) Old Highway 395 from Reche Road to Stewart Canyon Road (LOS F)
3) Old Highway 395 from Pala Mesa Dr. to SR-76 (LOS F)
4) SR-76 from E. Vista Way to North River Road (LOS F AM & PM)
5) SR-76 from North River Road to Olive Hill Road (LOS F AM & PM)
6) SR-76 from Olive Hill Road to S Mission Road (LOS F AM & PM)
7) SR-76 from S. Mission Road to Via Monserate (LOS F AM & PM)
8) SR-76 from Via Monserate to Gird Road (LOS F AM & PM)
9) SR-76 from Gird Road to Sage Road (LOS F AM & PM)
10) SR-76 from Sage Road to Old Highway 395 (LOS F AM & PM)
11) SR-76 from I-15 SB Ramp to I-15 NB Ramp (LOS F AM & PM)
12) SR-76 from Horse Ranch Creek Road to Rice Canyon Road (LOS F AM & PM)
13) SR-76 from Rice Canyon Road to Couser Canyon Road (LOS F AM & PM)
14) SR-76 from Couser Canyon to Pala Mission Road (LOS E AM & LOS F PM)

The Proposed Project would therefore have a **cumulatively significant impact** on these study area street segments (**TR-4**).

Freeway Segments

As shown in Table 2.3-14**,** all study area freeway segments would operate at LOS D or better in the existing + cumulative + project scenario. The Proposed Project would not contribute to a significant cumulative impact to any freeway segments.

Horizon Year 2030

The horizon year 2030 analysis was based on the horizon year street system (based on the adopted County Circulation Element) and LOS operations. The SANDAG traffic model included the Proposed Project, thus the horizon year (2030) volumes have the project traffic removed.

Details of the calculations and factors used to determine horizon year volumes and roadway conditions are detailed in the TIS. Under horizon year (2030) conditions, all study area intersections and roadways were calculated to operate at LOS D with the exception of the following:

1) Freeway segment of I-15 from Rainbow Valley Blvd. to Mission Road (LOS E & F AM & PM)
2) Freeway segment of I-15 from Mission Road to SR-76 (LOS F PM)
3) Freeway segment of I-15 from SR-76 to Escondido Highway (LOS E & F PM)

Horizon year (2030) intersection LOS, State Route / street segment volumes and LOS and freeway volumes and LOS are shown on Tables 2.3-15, 2.3-16 and 2.3-17, respectively.

Horizon Year 2030 + Project

This section describes the horizon year (2030) + project conditions for AM, PM, and daily traffic conditions. The peak hour intersection volumes and daily traffic volumes are shown in Figure 2.3-13.

Intersections

As shown in Table 2.3-18, in the Horizon Year 2030 + project condition all study area intersections were calculated to operate at LOS D or better.

Street Segments

As shown in Table 2.3-19A and 2.3-19B, in the Horizon Year 2030 + project condition, all study area street/State Route segments were calculated to operate at LOS D or better.

Freeway Segments

As shown in Table 2.3-20, all study area freeway segments would operate at D in the Horizon Year 2030 + project scenario with the exception of:

1) Freeway segment of I-15 from Rainbow Valley Blvd. to Mission Road (LOS E & F AM & PM)
2) Freeway segment of I-15 from Mission Road to SR-76 (LOS F PM)
3) Freeway segment of I-15 from SR-76 to Escondido Highway (LOS E & F PM)

Of these locations, using the County's significance criteria, no project impacts were calculated because the Proposed Project traffic does not exceed the significance thresholds.

Summary of Traffic Impacts

As described above, the Proposed Project is calculated to have direct and cumulative impacts to intersections, and street/ State Route segments. These impacts are identified in Table 2.3-21.

2.3.5 Mitigation Measures Proposed to Minimize the Significant Effects

M-TR-1 The applicant shall install a traffic signal at the intersection of Old Highway 395 and Reche Road to the satisfaction of the Director of DPW.

M-TR-2 Direct impacts to study area/State Route segments shall be mitigated through the construction of one additional travel lane in each direction. The Caltrans SR-76 project proposes the widening of SR-76 from Via Monserate to Gird Road and SR-76 from the I-15 SB ramp to I-15 the NB ramp. Should the Caltrans project not be completed prior to the Proposed Project, the applicant shall make a fair share contribution to be allocated to the widening of SR-76, if feasible.

M-TR-3 Cumulative impacts to study area intersections shall be mitigated through applicant participation in the Transportation Impact Fee (TIF) Program.

M-TR-4 Cumulative impacts to study area/State Route segments shall be mitigated through applicant participation in the TIF Program.

2.3.6 Conclusion

A summary of all direct and cumulative impacts with associated mitigation is included in Table 2.3-22.

TR-1: The Proposed Project would have a direct significant impact on one intersection as follows:

- Old Highway 395 / Reche Road (LOS F PM)

This impact shall be mitigated through the installation of a traffic signal after an increase in traffic causing signal warrants to be met. New traffic data would be collected to determine if sufficient traffic has materialized to warrant a traffic signal. The traffic signal will provide steady regulation of traffic flow at this location reducing intersection delay and thereby mitigating the impact Implementation of M-TR-1 will reduce the direct impact to **less than significant**.

TR-2: The Proposed Project would have a direct significant impact on two State Route segments, as follows:

- SR-76 (Pala Road) from Via Monserate to Gird Road (LOS E AM and LOS F PM)
- SR-76 (Pala Road) from I-15 SB Ramp to I-15 NB Ramp (LOS E AM & LOS F PM)

These impacts shall be mitigated through the widening of SR-76 from two to four lanes as proposed by the Caltrans SR-76 East Project. Once the roadway is widened, its

capacity would increase and Proposed Project related traffic would no longer contribute to unacceptable LOS.

Since these improvements are under the jurisdiction of Caltrans and not the County, there is a potential that the Caltrans improvements will not be in place prior to the first residential unit. As such, the County can not assure that impacts would be avoided until actual improvements have been constructed. If Caltrans' construction of the improvements is delayed, the only feasible mitigation would be for the applicant to widen SR-76 to four lanes. Given the magnitude and ongoing nature of the projects/plans summarized above, widening SR-76 along these affected segments would require detailed engineering and construction beyond the capability of a single private applicant (including extensive conversion of existing land uses beyond the purview/ability of a private applicant). These improvements would require regional highway improvements of a magnitude and scope disproportionate to the current development project and outside the jurisdiction of the County to approve. The resolution of the existing and projected inadequate service capacities along SR-76, which is a designated state highway, must occur on a regional level. As noted, the lead agency with authority to approve and implement these improvements is Caltrans, and they are already underway in planning and coordination with others regarding focused segment improvements. The County, Caltrans and the Project Applicant have met and conferred regarding Project impacts and appropriate mitigation. Should the Caltrans project not be completed prior to the Proposed Project, the applicant shall make a fair share contribution to be allocated to the widening of SR-76, if feasible

The intersection improvements to SR-76/Horse Ranch Creek Road are a function of the project phasing and timing of other projects that will also use Horse Ranch Creek Road. If the applicant is first in time, then the applicant shall install a traffic signal at SR-76/Horse Ranch Creek Road when signal warrants are satisfied and construct a single left-turn lane (eastbound to northbound). If the applicant is second in time, then the applicant would be required to modify the previously signalized intersection at SR-76/Horse Ranch Creek Road to accommodate dual left-turn lanes and appropriately modify the traffic signal if such work has not previously been performed by others. The turn pockets along SR-76 at Horse Ranch Creek Road would remove traffic from SR-76 travel lanes and thereby improve SR-76 traffic flow.

Despite the mitigative elements discussed above, short-term impacts to SR-76 would temporarily remain significant and unmitigated.

A Statement of Overriding Considerations would be required to be adopted to address this significant and unmitigated impact.

TR-3: The Proposed Project would have cumulative impacts on 19 intersections, as shown in Table 2.3-21.

These impacts shall be mitigated through applicant participation in the TIF Program. The TIF Program was specifically designed to address cumulative issues. The TIF Program looks forward to improvements required to support adequate circulation through Year 2030. Required improvements are specified and funds are collected from projects coming on line in order to defray costs of those improvements when implemented. Since the TIF Program was designed to address cumulative concerns and the associated appropriate payment for specified improvements, participation in the TIF

Program constitutes effective and adequate mitigation for this issue. Payment of TIF fees shall serve to reduce these significant impacts to less than significant.

TR-4: The Proposed Project would have cumulative impacts on 14 street/State Route segments, as shown in Table 2.3-21.

These impacts shall be mitigated through applicant participation in the TIF Program as described above. Payment to the TIF Program shall serve to reduce these significant impacts to less than significant, as discussed in the subsequent paragraphs. .

The County's TIF Program provides a mechanism for mitigating the impacts created by future growth within the unincorporated area. The TIF is a fee offered to developers to facilitate compliance with the CEQA mandate that development projects mitigate their indirect, cumulative traffic impacts. The County TIF Program assesses the fee on all new development that results in new/added traffic. The primary purpose of the TIF is twofold: (1) to fund the construction of identified roadway facilities needed to reduce, or mitigate, projected cumulative traffic impacts resulting from future development within the County; and (2) to allocate the costs of these roadway facilities proportionally among future developing properties based upon their individual cumulative traffic impacts.

TIF funds are collected into 23 local Community Planning Area accounts, three regional accounts, and three regional freeway ramp accounts. TIF funds are only used to pay for improvements to roadway facilities identified for inclusion in the TIF Program, which include both County roads and Caltrans highway facilities. TIF funds collected for a specific local or regional area must be spent in the same area. For example, the TIF collected in the North Region TIF account may only be used for improvements to TIF facilities in the North Region. By ensuring TIF funds are spent for the specific roadway improvements identified in the TIF Program, the CEQA mitigation requirement is satisfied and the Mitigation Fee Act nexus is met.

As part of the TIF Program process, the transportation infrastructure needs are characterized as one of the following: existing deficiencies; direct impacts of future development; or indirect (cumulative) impacts of future development. Existing roadway deficiencies are the responsibility of existing developed land uses and government agencies, and cannot be financed with impact fees. The TIF Program is not intended to mitigate direct impacts which will continue to be the responsibility of individual development projects. Therefore, the TIF Program is only designed to address the cumulative impacts associated with new growth.

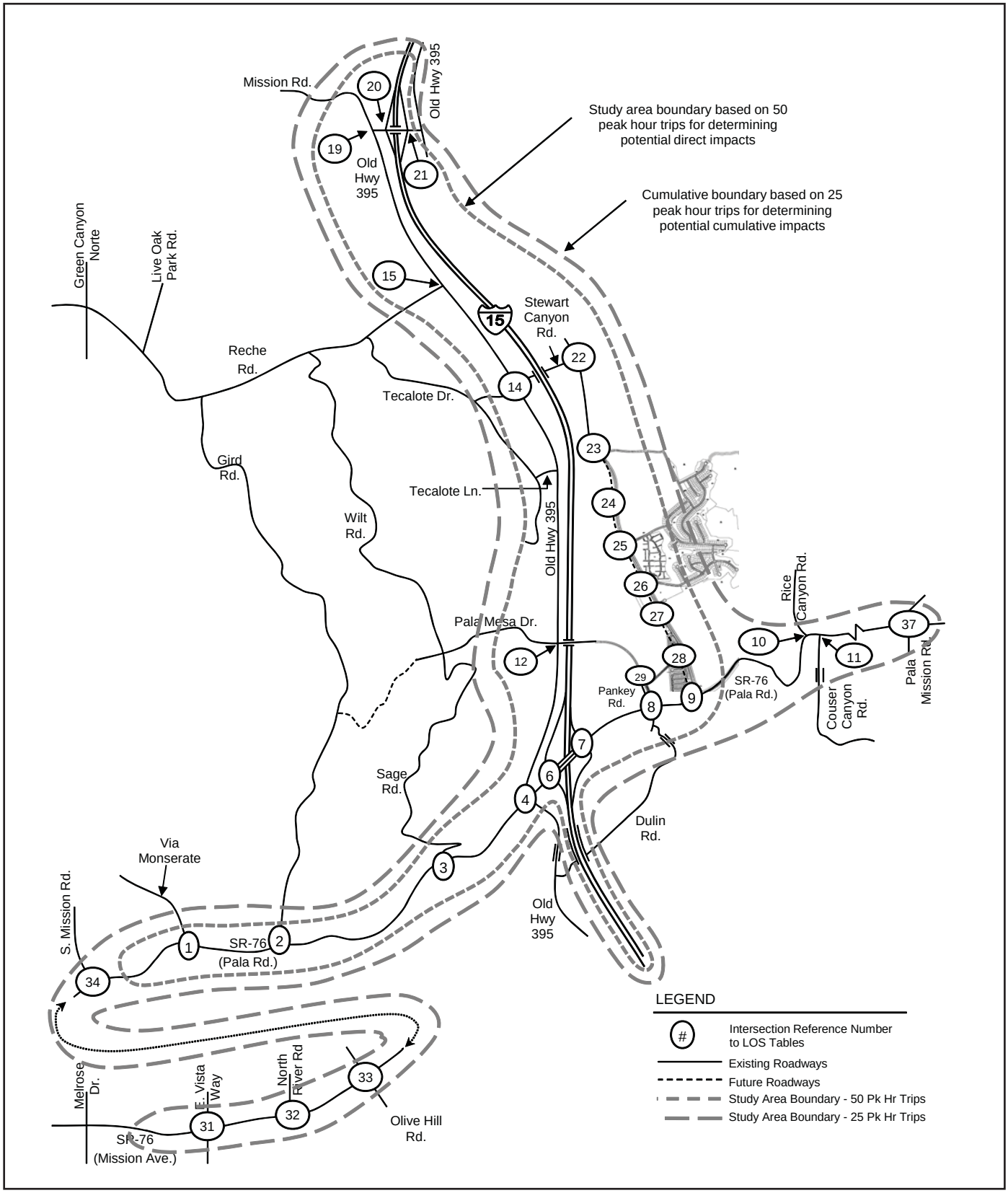
The County TIF Program enables projects to complete CEQA compliance and move forward by contributing funds, which represents paying a fair share, toward the cost of improving roads, in the future, as the levels of service become unacceptable. This is due to the increased traffic volume caused by the cumulative impacts, of various developments. The County's TIF Program goes into great detail in identifying anticipated development, the roads affected, roadway costs, and the existing and projected levels of service on those roads. As sufficient funds become available, the County will implement the improvements that it has committed to.

In general, contribution to the TIF Program will mitigate a project's cumulative impacts within the unincorporated area. However, there will be some development projects that do not conform to the County's existing or proposed land use plan (General Plan

Amendments, Specific Plans, and Specific Plan Amendments) which would result in increases in density or intensity, where the adopted TIF projections did not analyze their cumulative impacts. Such a circumstance would prevent the County's planned Circulation Element road system from operating, at its planned LOS, at that type of project's buildout. If approved, General Plan Amendment, Specific Plan, and Specific Plan Amendment projects resulting in increased densities will need to fully mitigate their direct and cumulative impacts. The direct impact mitigation required for the non-conforming projects are expected to address cumulative roadway deficiencies not envisioned as part of the TIF program and/or the County's planned Circulation Element roadway system. However, for the Proposed Project, the applicant's TIF payment mitigates for all Proposed Project cumulative impacts.

As currently designed, the Proposed Project would allow the County to address some of its current and projected challenges in relation to an increased population that requires a diversity of housing types. The Proposed Project and its surrounding area have been targeted in the Draft General Plan Update as a region that could support increased population. The result is that multiple projects are proposing development which will change the existing land usages to urban land usage, increasing traffic related impacts. Although each project will likely provide design measures, like the Proposed Project, both direct and cumulative impacts within the region is unavoidable. Therefore, significant direct and cumulative impacts will remain. A Statement of Overriding Considerations would be required to be adopted to address this significant and unmitigated impact.

Map Source: LOS Engineering, Inc., May 2009



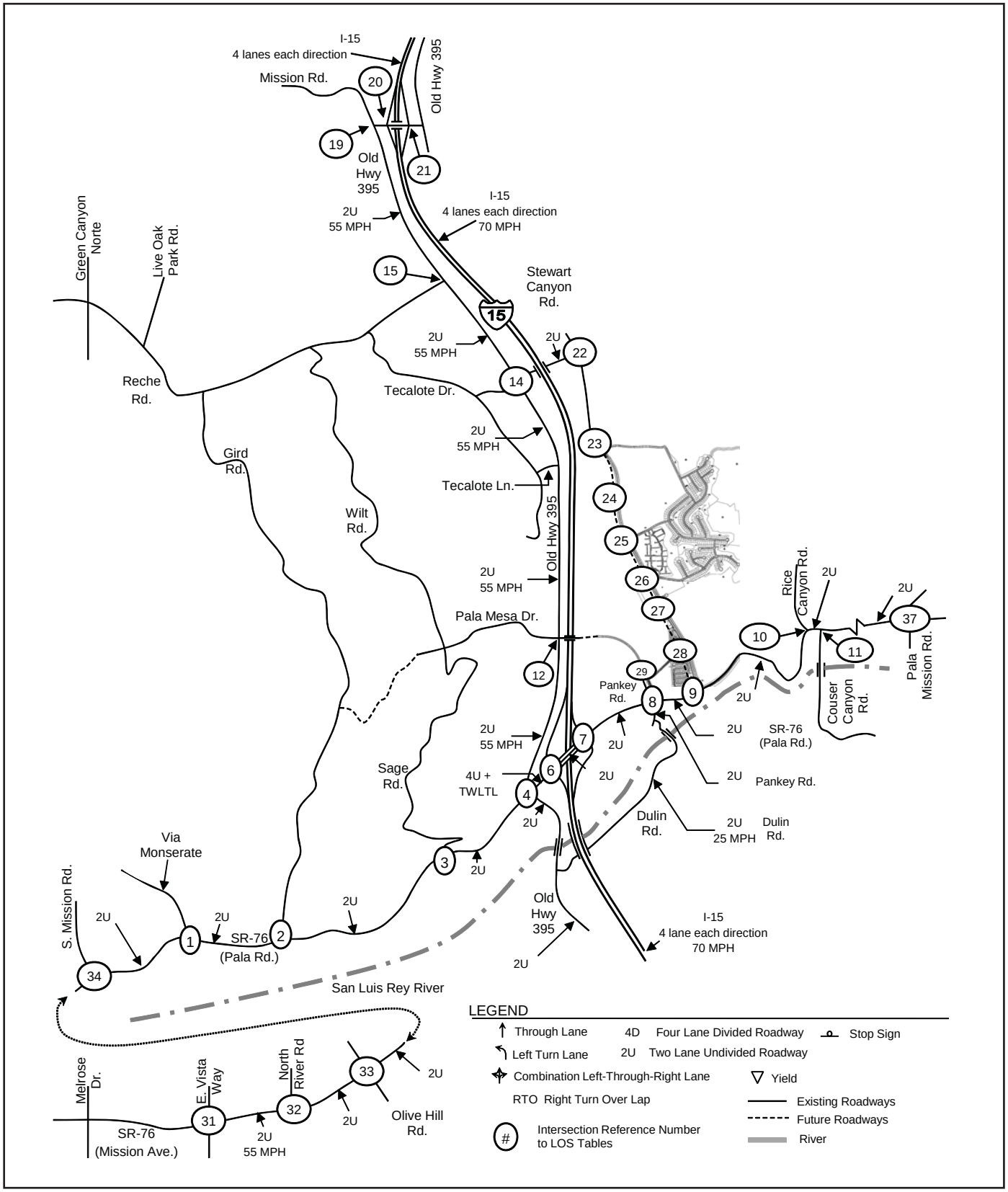
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FIGURE 2.3-1
Traffic Study Area

Map Source: LOS Engineering, Inc., May 2009



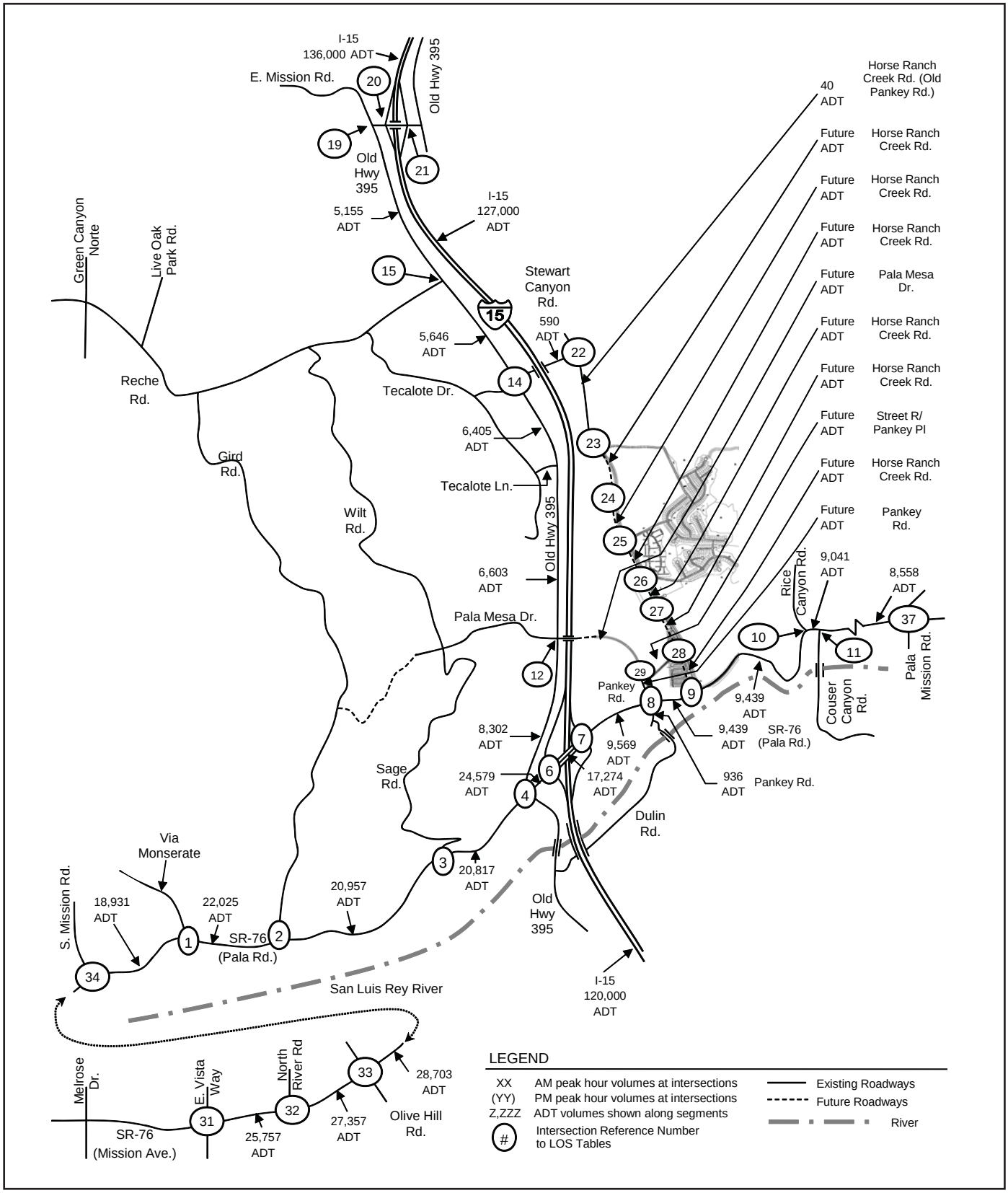
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FIGURE 2.3-2
Existing Roadway Conditions

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Map Source: LOS Engineering, Inc., May 2009



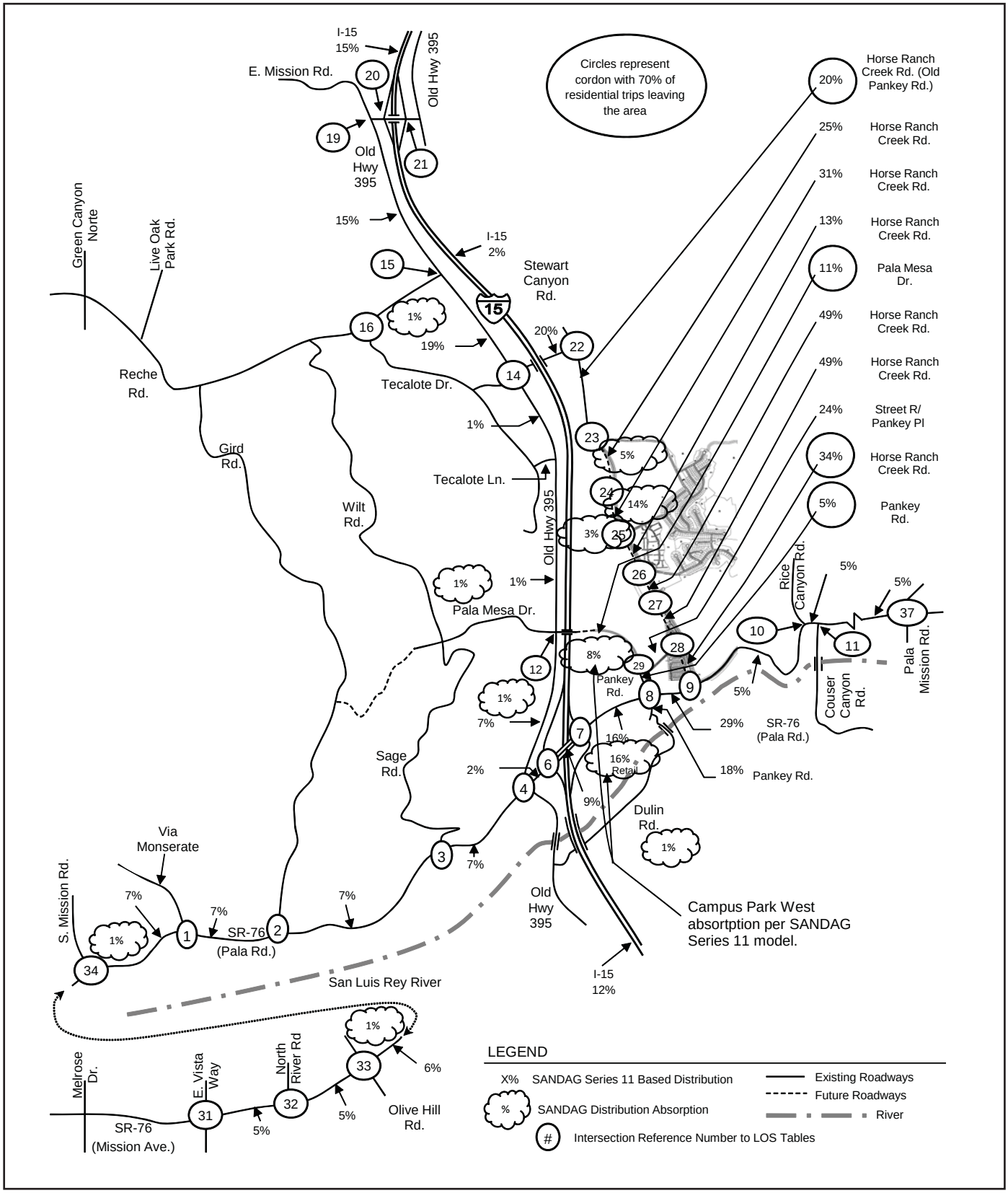
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FIGURE 2.3-3
Existing Traffic Volumes

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Map Source: LOS Engineering, Inc., May 2009



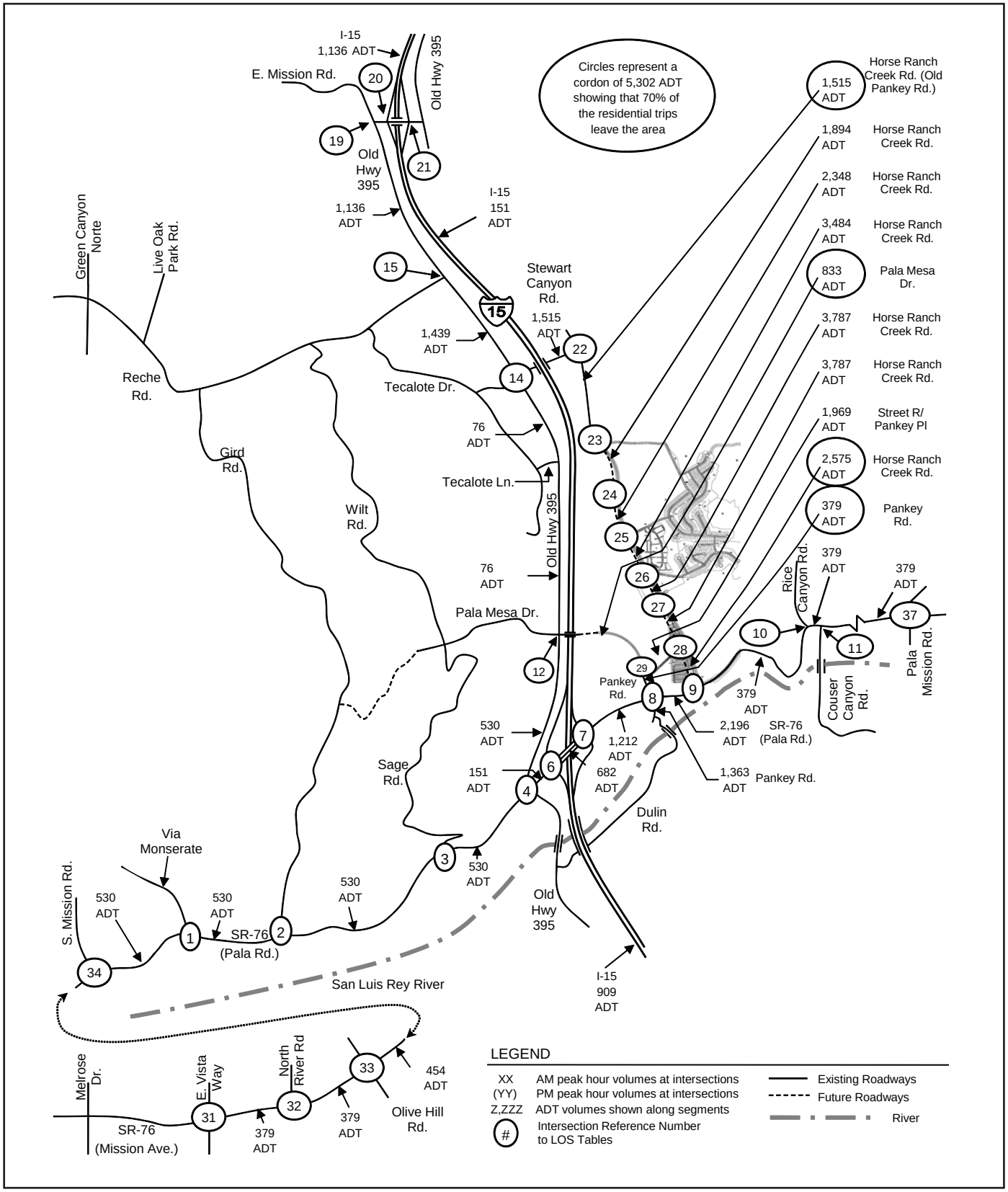
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FIGURE 2.3-4
Long-term Residential Distribution

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Map Source: LOS Engineering, Inc., May 2009



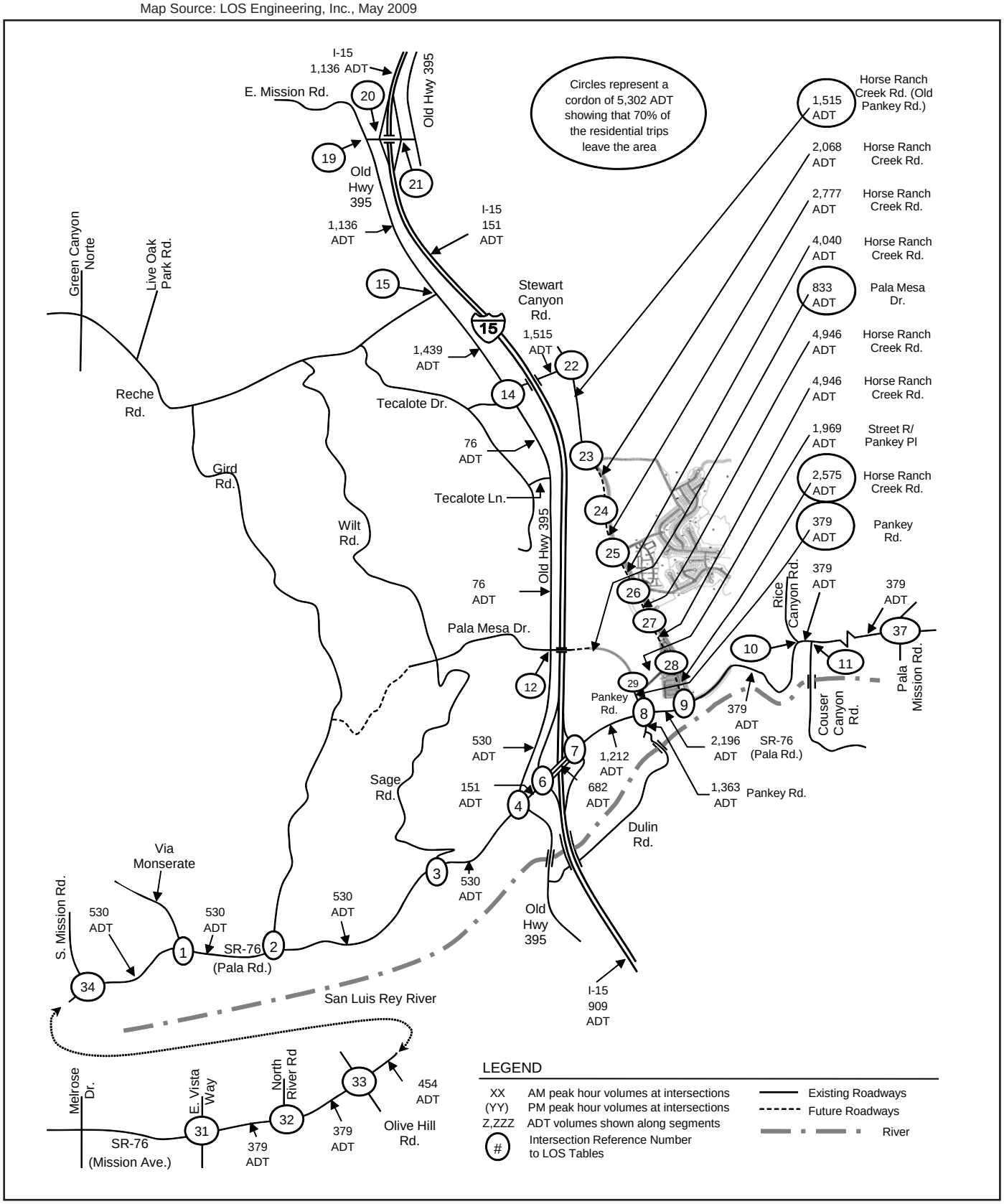
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FIGURE 2.3-5
Long-term Residential Assignment

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Map Source: LOS Engineering, Inc., May 2009



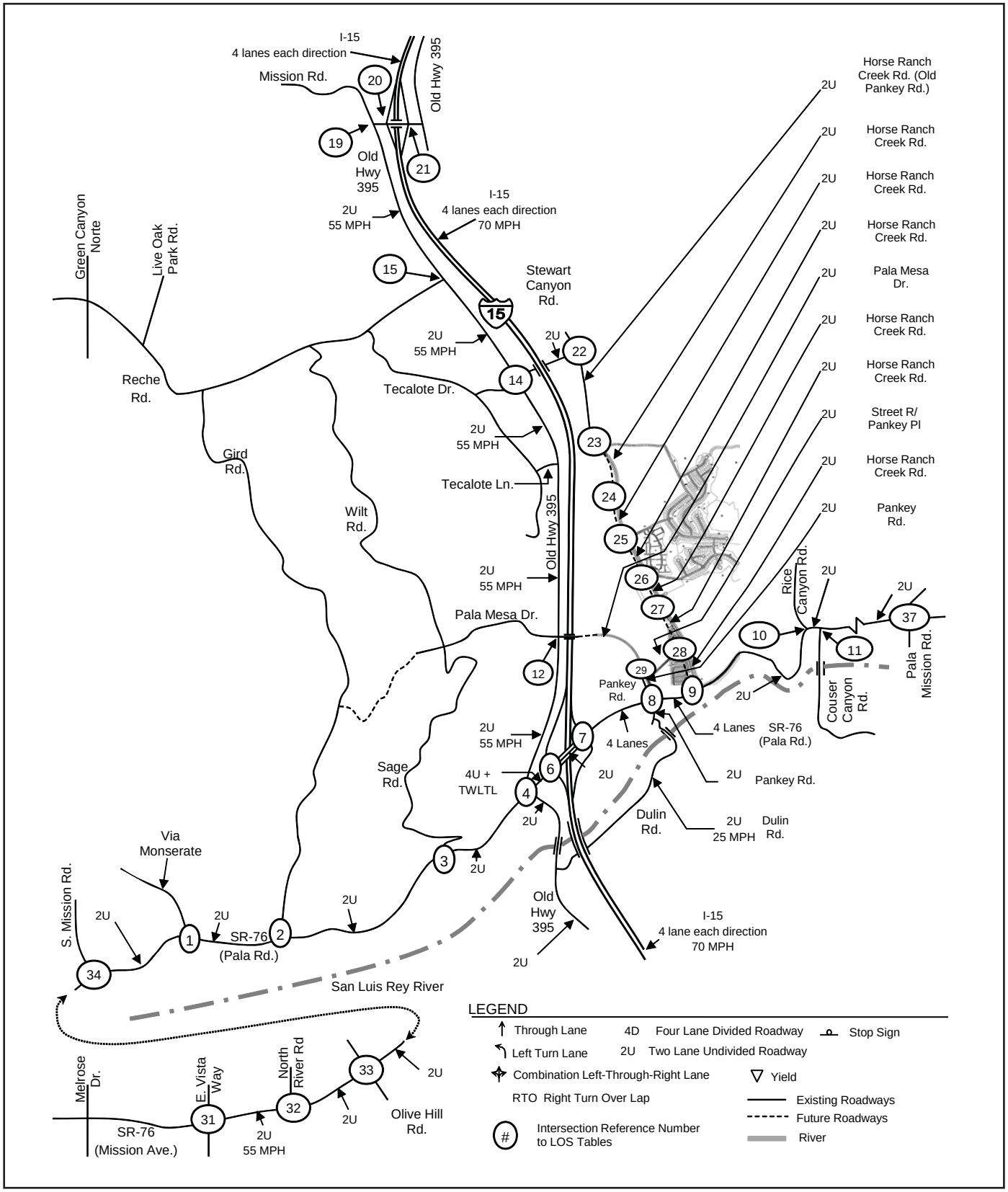
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FIGURE 2.3-6
Long-term Residential, School, and Park Assignment

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Map Source: LOS Engineering, Inc., May 2009



NO SCALE

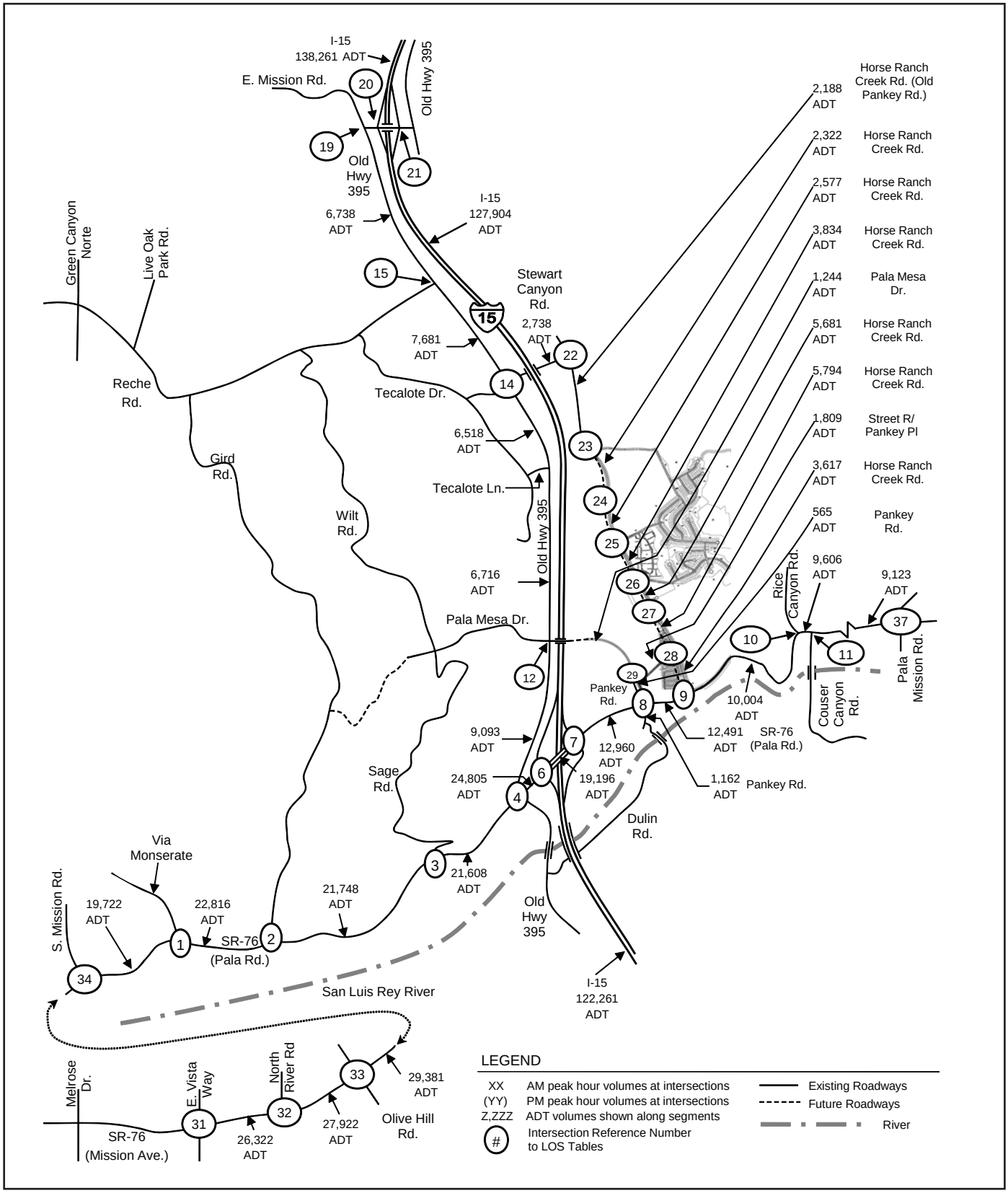
FIGURE 2.3-7

Existing + Project Roadway Conditions

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Map Source: LOS Engineering, Inc., May 2009



NO SCALE

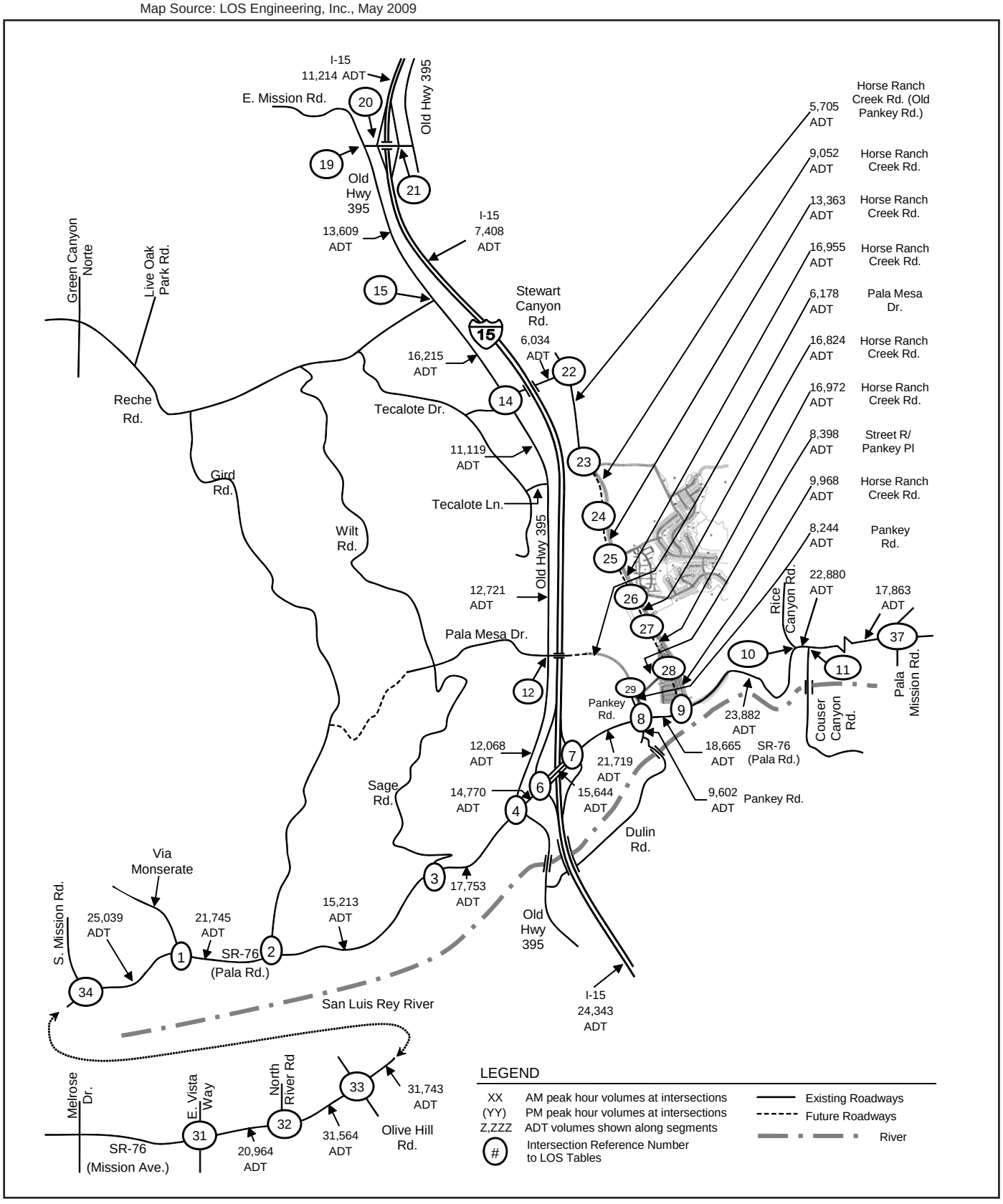
FIGURE 2.3-8

Existing + Project Volumes

RECON

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Map Source: LOS Engineering, Inc., May 2009



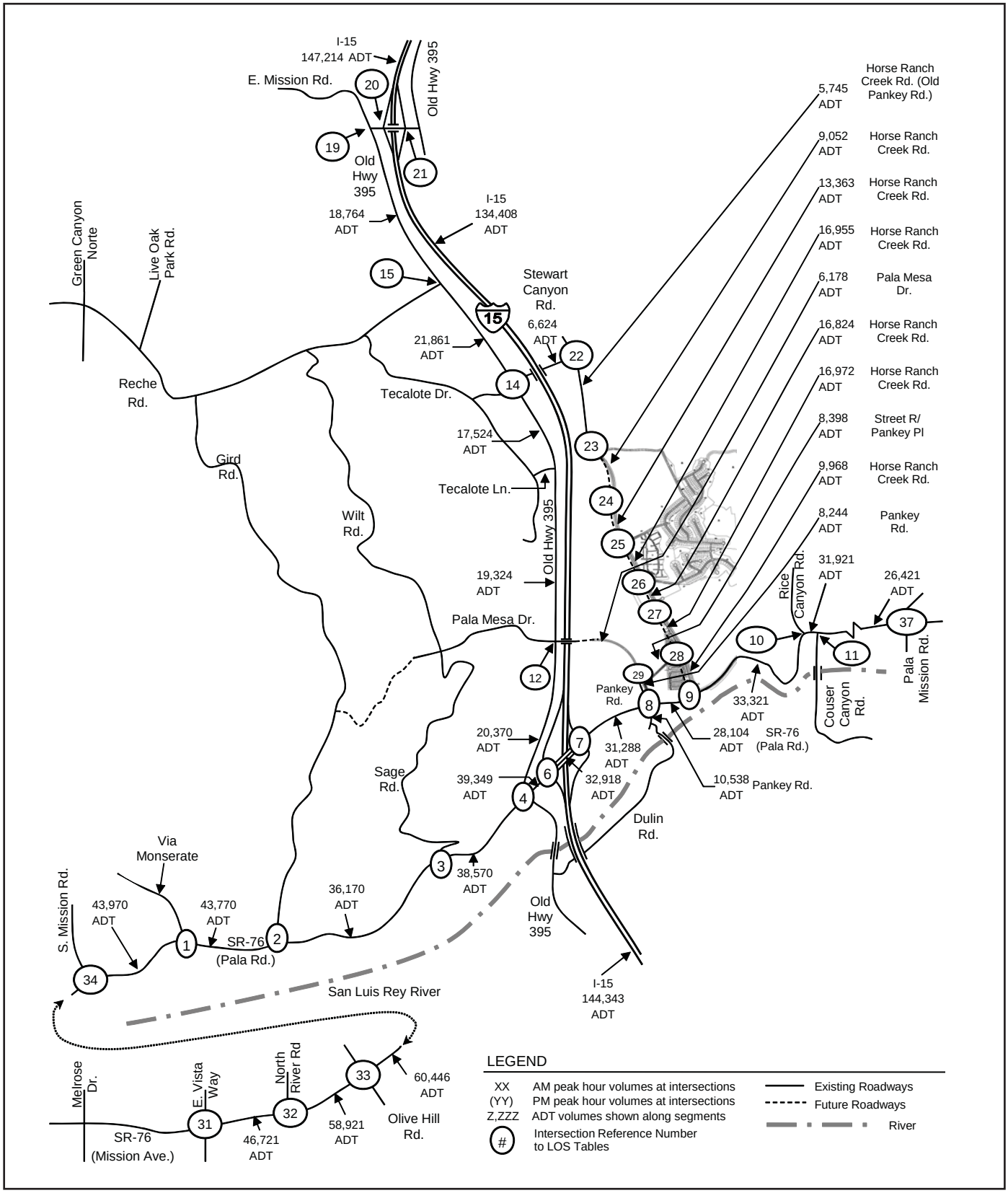
NO SCALE

FIGURE 2.3-9
Cumulative Project Volumes

RECON

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Map Source: LOS Engineering, Inc., May 2009



NO SCALE

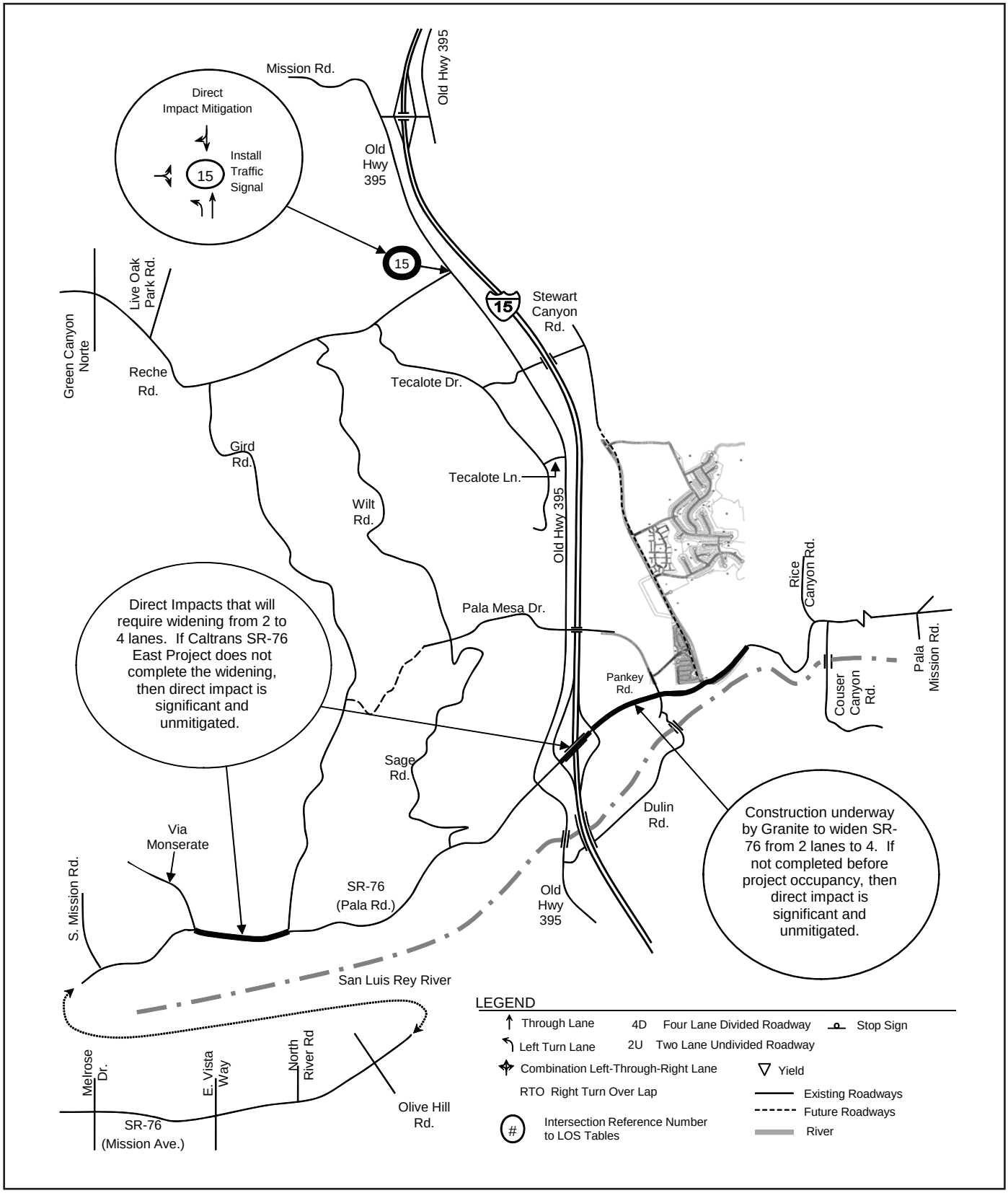
FIGURE 2.3-10

Near-term (Existing + Cumulative) Volumes

RECON

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Map Source: LOS Engineering, Inc., May 2009



NO SCALE

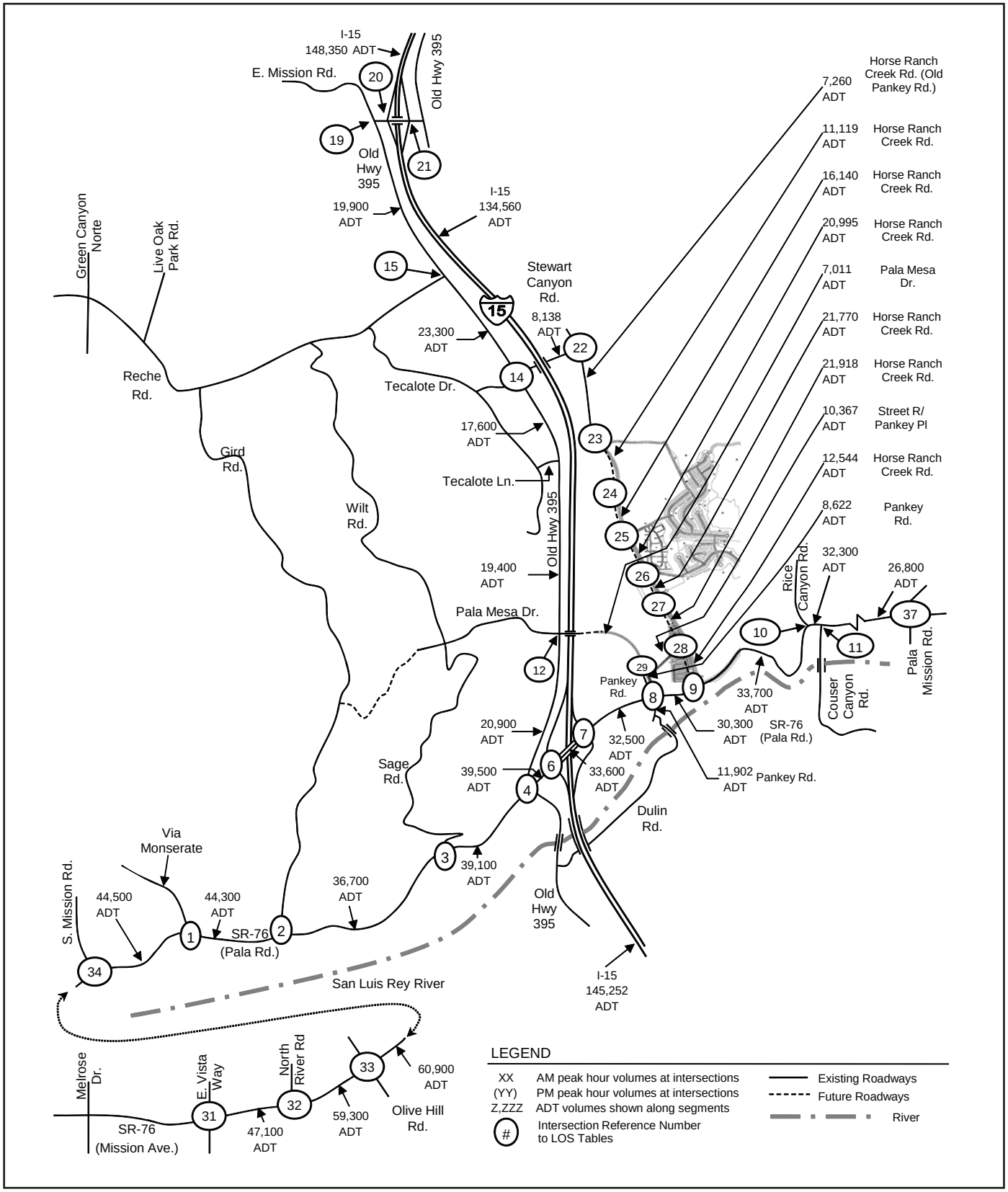
FIGURE 2.3-11

Near-term (Existing + Cumulative) Planned Roadway Improvements

RECON

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Map Source: LOS Engineering, Inc., May 2009



NO SCALE

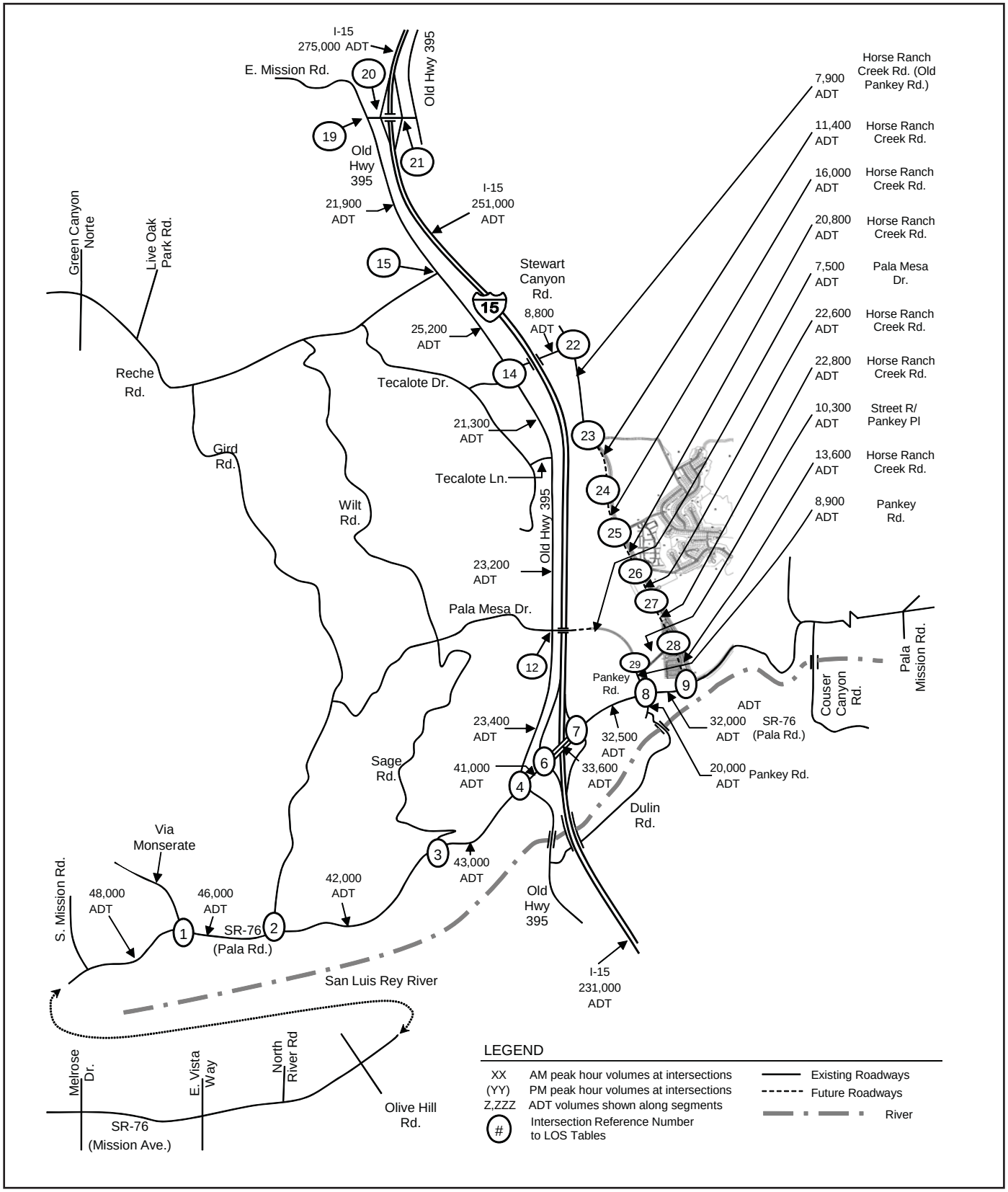
FIGURE 2.3-12

Near-term (Existing + Cumulative) Project Volumes

RECON

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Map Source: LOS Engineering, Inc., May 2009



NO SCALE

FIGURE 2.3-13
Horizon Year + Project Volumes

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TABLE 2.3-1
EXISTING INTERSECTION LEVEL OF SERVICE

Intersection and (Analysis)[1]	Movement	Peak Hour	Existing Delay[2]	Existing LOS[3]
1) SR-76 (Pala Rd) at	SB LR	AM	86.1	**F**
Via Monserate (U)	SB LR	PM	91.4	**F**
	All	AM	5.0	A
	All	PM	2.9	A
2) SR-76 (Pala Rd) at	All	AM	12.9	B
Gird Rd (S)	All	PM	12.6	B
3) SR-76 (Pala Rd) at	SB LR	AM	22.6	C
Sage Rd (U)	SB LR	PM	33.0	D
	All	AM	0.2	A
	All	PM	0.4	A
4) SR-76 (Pala Rd) at	All	AM	29.7	C
Old Hwy 395 (S)	All	PM	30.2	C
6) SR-76 (Pala Rd) at	All	AM	27.5	C
I-15 SB Ramps (S)	All	PM	26.4	C
7) SR-76 (Pala Rd) at	All	AM	22.4	C
I-15 NB Ramps (S)	All	PM	43.6	D
8) SR-76 (Pala Rd) at	NB LTR	AM	12.2	B
Pankey Road (U)	NB LTR	PM	14.6	B
	SB LTR	AM	0.0	A
	SB LTR	PM	0.0	A
9) SR-76 (Pala Rd) at	Future	AM	DNE	NA
Horse Ranch Creek Rd (U)	Intersection	PM	DNE	NA
10) SR-76 (Pala Rd) at	SB LR	AM	10.7	B
Rice Canyon Road (U)	SB LR	PM	12.9	B
11) SR-76 (Pala Rd) at	NB LR	AM	11.9	B
Couser Canyon Road (U)	NB LR	PM	14.2	B
12) Old Highway 395 at	EB LR	AM	11.0	B
Pala Mesa Dr (U)	EB LR	PM	11.1	B
14) Old Highway 395 at	WB LTR	AM	10.8	B
Stewart Canyon Road (U)	WB LTR	PM	11.9	B
15) Old Highway 395 at	EB LR	AM	18.4	C
Reche Road (U)	EB LR	PM	35.9	**E**
	All	AM	10.6	B
	All	PM	17.6	B
19) Mission Road at	SB L	AM	12.2	B
Old Highway 395 (S)	SB L	PM	23.0	C
20) Mission Road at	SB LTR	AM	20.6	C
I-15 SB Ramps (S)	SB LTR	PM	17.8	B
21) Mission Road at	All	AM	17.2	B
I-15 NB Ramps (S)	All	PM	37.5	D
22) Stewart Canyon Rd at	EB LR	AM	8.7	A
HRCR/Pankey Road (U)	EB LR	PM	8.7	A
23) Horse Ranch Crk Rd at	WB LR	AM	DNE	NA
Baltimore Oriole (U)	WB LR	PM	DNE	NA
24) Horse Ranch Crk Rd at	All	AM	DNE	NA
Longspur Rd (S)	All	PM	DNE	NA
25) Horse Ranch Crk Rd at	WB LR	AM	DNE	NA
Harvest Glen Ln (U)	WB LR	PM	DNE	NA
26) Horse Ranch Crk Rd at	WB LR	AM	DNE	NA
Pardee South Loop (U)	WB LR	PM	DNE	NA
27) Horse Ranch Crk Rd at	All-Way	AM	DNE	NA
School/Park Access (U)	All-Way	PM	DNE	NA
28) Horse Ranch Crk Rd	EB LR	AM	DNE	NA
at Street R (U)	EB LR	PM	DNE	NA
29) Pankey/Pala Mesa Dr	WB LR	AM	DNE	NA
at Street R (U)	WB LR	PM	DNE	NA
31) SR-76 (Mission Ave) at	All	AM	60.9	**E**
E. Vista Way (S)	All	PM	48.4	D
32) SR-76 (Mission Ave) at	All	AM	61.7	**E**
North River Rd (S)	All	PM	29.7	C
33) SR-76 (Mission Ave) at	All	AM	53.8	D
Olive Hill Rd (S)	All	PM	52.9	D
34) SR-76 (Mission Ave) at	All	AM	18.9	B
S. Mission Rd (S)	All	PM	21.5	C
37) SR-76 (Pala Rd.) at	All	AM	29.3	C
Pala Mission Rd. (S)	All	PM	32.4	C

Notes: HRCR: Horse Ranch Creek Rd. 1) Intersection Analysis - (S) Signalized, (U) Unsignalized 2) Delay - HCM Average
3) LOS: Level of Service.

TABLE 2.3-2A
EXISTING SEGMENT ADT VOLUMES AND LEVEL OF SERVICE

Segment	Classification Circulation Element (9/05)	Existing				
		Daily Volume	# of lanes	LOS E Capacity	V/C	LOS
Old Highway 395						
East Mission Road to Reche Road	Collector	5,155	2	16,200	0.32	C
Reche Road to Stewart Canyon Road	Collector	5,646	2	16,200	0.35	C
Pala Mesa Drive to SR-76 (Pala Road)	Collector	8,302	2	16,200	0.51	D
Stewart Canyon Road						
Old Hwy 395 to Horse Ranch Creek Rd	Collector	590	2	16,200	0.04	A
Pankey Road						
Stewart Canyon Rd to Baltimore Oriole (#23)	Light Collector	40	2	16,200	0.00	A
Break in Pankey Road						
Street R/Pankey Place to SR-76 (Pala Rd)	Light Collector	Minimal	2	16,200	0.00	A
SR-76 (Pala Road) to Dulin Rd	Light Collector	936	2	16,200	0.06	A

Notes: Classification per September 2005 Circulation Element Maps. Daily volume is a 24 hour volume.
LOS: Level of Service. V/C: Volume to Capacity ratio. NA: Not Applicable.

TABLE 2.3-2B
EXISTING STATE ROUTE VOLUMES AND LOS (WITH GRANITE IMPROVEMENT)

State Route 76	Lanes in	AM (Eastbound)					AM (Westbound)					PM (Eastbound)					PM (Westbound)				
Study Limits (direct & cumulative)	each dir	Vol	Dir	Cap	v/c	LOS	Vol	Dir	Cap	v/c	LOS	Vol	Dir	Cap	v/c	LOS	Vol	Dir	Cap	v/c	LOS
E. Vista Way to North River Rd	1	718	EB	950	0.76	D	1040	WB	950	1.09	**F**	1107	EB	950	1.17	**F**	652	WB	950	0.69	C
North River Rd to Olive Hill Rd	1	852	EB	950	0.90	**E**	1200	WB	950	1.26	**F**	1176	EB	950	1.24	**F**	781	WB	950	0.82	D
Olive Hill Rd to Mission Rd	1	1031	EB	950	1.09	**F**	1245	WB	950	1.31	**F**	1457	EB	950	1.53	**F**	1069	WB	950	1.13	**F**
Mission Rd to Via Monserate	1	745	EB	950	0.78	D	901	WB	950	0.95	**E**	1064	EB	950	1.12	**F**	618	WB	950	0.65	C
Via Monserate to Gird Rd	1	808	EB	950	0.85	D	895	WB	950	0.94	**E**	1077	EB	950	1.13	**F**	786	WB	950	0.83	D
Gird Rd to Sage Rd	1	740	EB	950	0.78	D	542	WB	950	0.57	C	645	EB	950	0.68	C	742	WB	950	0.78	D
Sage Rd to Old Hwy 395	1	760	EB	950	0.80	D	534	WB	950	0.56	C	638	EB	950	0.67	C	768	WB	950	0.81	D
Old Hwy 395 to I-15 SB Ramps	2	1507	EB	2050	0.74	**D**	665	WB	2028	0.33	B	816	EB	2050	0.40	B	1258	WB	2028	0.62	C
I-15 SB Ramps to I-15 NB Ramps	1	844	EB	950	0.89	**E**	539	WB	950	0.57	C	718	EB	950	0.76	D	1153	WB	950	1.21	**F**
I-15 NB Ramps to Pankey Rd	2	559	EB	3100	0.18	A	606	WB	3030	0.20	A	696	EB	3100	0.22	A	820	WB	3030	0.27	A
Pankey Rd to Horse Ranch Creek Rd	2	589	EB	1806	0.33	B	540	WB	2028	0.27	A	631	EB	1806	0.35	B	897	WB	2028	0.44	B
Horse Ranch Creek Rd to Rice Cyn	1	588	EB	950	0.62	C	539	WB	950	0.57	C	631	EB	950	0.66	C	897	WB	950	0.94	**E**
Rice Cyn to Couser Cyn	1	589	EB	950	0.62	C	540	WB	950	0.57	C	526	EB	950	0.55	C	930	WB	950	0.98	**E**
Couser Cyn to Pala Mission Rd	1	634	EB	950	0.67	C	357	WB	950	0.38	B	434	EB	950	0.46	B	950	WB	950	1.00	**F**

Source: SANDAG Hwycov 2007. Notes: Dir = Direction. Vol = Volume. Cap = Capacity. v/c = volume to capacity ratio. LOS = Level of Service.

TABLE 2.3-3
EXISTING FREEWAY VOLUMES AND LOS

Freeway	**I-15**				**I-15**				**I-15**			
Segment	Rainbow Valley Blvd to Mission Rd				Mission Rd to SR-76 (Pala Rd)				SR-76 to Escondido Hwy (Old 395)			
Existing (Year 2006)												
ADT	136,000				127,000				120,000			
Peak Hour	A M		P M		A M		P M		A M		P M	
Direction	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
Number of Lanes	4	4	4	4	4	4	4	4	4	4	4	4
Capacity (1)	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400
K Factor (2)	0.0619	0.0619	0.0738	0.0738	0.0619	0.0619	0.0738	0.0738	0.0590	0.0590	0.0723	0.0723
D Factor (3)	0.1653	0.8347	0.6398	0.3602	0.1653	0.8347	0.6398	0.3602	0.1989	0.8011	0.6955	0.3045
Truck Factor (4)	0.9186	0.9186	0.9186	0.9186	0.9186	0.9186	0.9186	0.9186	0.8977	0.8977	0.8977	0.8977
Peak Hour Volume	1,515	7,650	6,991	3,936	1,415	7,143	6,528	3,675	1,569	6,318	6,722	2,943
Volume to Capacity	0.161	0.814	0.744	0.419	0.150	0.760	0.694	0.391	0.167	0.672	0.715	0.313
LOS	A	D	C	A	A	C	C	A	A	C	C	A

Notes: (1) Capacity of 2,350 passenger cars per hour per lane (pcphpl) from Caltrans' Guide for the Preparation of Traffic Impact Studies, Dec 2002. (2) Latest K factor from Caltrans (based on 2005 data), which is the percentage of Annual Average Daily Traffic (AADT) in both directions. (3) Latest D factor from Caltrans (based on 2005 data), which when multiplied by K and ADT will provide peak hour volume. (4) Latest truck factor from Caltrans (based on 2000 data).

TABLE 2.3-4
PROJECT TRIP GENERATION

Proposed									**AM**					**PM**	
Land Use	**Rate**		**Size & Units**		**ADT**	**%**	**Split**		**IN**	**OUT**	**%**	**Split**		**IN**	**OUT**
Residential - Single Family	10	/DU	355	DU	**3,550**	8%	0.3	0.7	**85**	**199**	10%	0.7	0.3	**249**	**107**
Residential - Multi Family	8	/DU	503	DU	**4,024**	8%	0.2	0.8	**65**	**257**	10%	0.7	0.3	**282**	**121**
Residential Subtotal			**858**		**7,574**				**150**	**456**				**531**	**228**
Neighborhood Park	5	/Acre	10.0	Acres	**50**	4%	0.5	0.5	**1**	**1**	8%	0.5	0.5	**2**	**2**
Elementary School	90	/Acre	12.7	Acres (1)	**1,116**	32%	0.6	0.4	**214**	**143**	9%	0.4	0.6	**41**	**60**
School & Park Subtotal					**1,166**				**215**	**144**				**43**	**62**
Total					**8,740**				**365**	**600**				**574**	**290**

Source: SANDAG *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region,* April 2002. DU - Dwelling Unit; ADT-Average Daily Traffic; Split-percent inbound and outbound. (1) School site of 12.7 acres includes a detention basin, thus a usable size of 12.4 acres was used for the traffic generation. This 12.4 usable acres may be conservative as the site is a cone shape that may yield less usable space.

TABLE 2.3-5
EXISTING + PROJECT INTERSECTION LOS

Intersection & (Analysis)[1]	Move-ment	Peak Hour	Existing		Existing + Project				County	CMP
			Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delta[4]	CM Vol[5]	Sig[6]	Sig[7]
1) SR-76 (Pala Rd) at	SB LR	AM	86.1	**F**	106.2	**F**	NA	0	No	NA
Via Monserate (U)	SB LR	PM	91.4	**F**	113.4	**F**	NA	0	No	NA
	All	AM	5.0	A	5.9	A	0.9	NA	NA	No
	All	PM	2.9	A	3.4	A	0.5	NA	NA	No
2) SR-76 (Pala Rd) at	All	AM	12.9	B	13.7	B	0.8	NA	No	No
Gird Rd (S)	All	PM	12.6	B	13.0	B	0.4	NA	No	No
3) SR-76 (Pala Rd) at	SB LR	AM	22.6	C	24.2	C	NA	0	No	NA
Sage Rd (U)	SB LR	PM	33.0	D	36.3	**E**	NA	0	No	NA
	All	AM	0.2	A	0.3	A	0.1	NA	NA	No
	All	PM	0.4	A	0.5	A	0.1	NA	NA	No
4) SR-76 (Pala Rd) at	All	AM	29.7	C	33.2	C	3.5	NA	No	No
Old Hwy 395 (S)	All	PM	30.2	C	33.5	C	3.3	NA	No	No
6) SR-76 (Pala Rd) at	All	AM	27.5	C	30.1	C	2.6	NA	No	No
I-15 SB Ramps (S)	All	PM	26.4	C	26.9	C	0.5	NA	No	No
7) SR-76 (Pala Rd) at	All	AM	22.4	C	29.2	C	6.8	NA	No	No
I-15 NB Ramps (S)	All	PM	43.6	D	49.4	D	5.8	NA	No	No
8) SR-76 (Pala Rd) at	NB LTR	AM	12.2	B	15.7	C	NA	4	No	NA
Pankey Road (U)	NB LTR	PM	14.6	B	22.8	C	NA	16	No	NA
	SB LTR	AM	0.0	A	12.1	B	NA	34	No	NA
	SB LTR	PM	0.0	A	13.3	B	NA	17	No	NA
9) SR-76 (Pala Rd) at	All	AM	DNE	NA	12.8	B	NA	NA	No	No
Horse Ranch Creek Rd (U)	All	PM	DNE	NA	16.4	B	NA	NA	No	No
12) Old Highway 395 at	EB LTR	AM	11.0	B	11.7	B	NA	4	No	NA
Pala Mesa Dr (U)	EB LTR	PM	11.1	B	13.5	B	NA	16	No	NA
East leg completed	WB LTR	AM	DNE	NA	14.4	B	NA	75	No	NA
with project	WB LTR	PM	DNE	NA	17.3	C	NA	37	No	NA
14) Old Highway 395 at	WB LTR	AM	10.8	B	10.8	B	NA	129	No	No
Stewart Canyon Road (U)	WB LTR	PM	11.9	B	13.8	B	NA	65	No	No
15) Old Highway 395 at	EB LR	AM	18.4	C	28.7	D	NA	10	No	No
Reche Road (U)	EB LR	PM	35.9	**E**	105.5	**F**	NA	32	**Yes**	No
	All	AM	10.6	B	13.6	B	3.0	NA	NA	No
	All	PM	17.6	B	42.1	**E**	24.5	NA	NA	**Yes**
19) Mission Road at	SB L	AM	12.2	B	13.3	B	1.1	NA	No	No
Old Highway 395 (S)	SB L	PM	23.0	C	34.1	C	11.1	NA	No	No
20) Mission Road at	SB LTR	AM	20.6	C	28.7	C	8.1	NA	No	No
I-15 SB Ramps (S)	SB LTR	PM	17.8	B	27.4	C	9.6	NA	No	No
21) Mission Road at	All	AM	17.2	B	18.7	B	1.5	NA	No	No
I-15 NB Ramps (S)	All	PM	37.5	D	42.1	D	4.6	NA	No	No
22) Stewart Canyon Rd at	EB LR	AM	8.7	A	9.3	A	NA	43	No	No
HRCR/Pankey Road (U)	EB LR	PM	8.7	A	9.3	A	NA	151	No	No
23) Horse Ranch Crk Rd at	WB LR	AM	DNE	NA	9.6	A	NA	32	No	No
Baltimore Oriole (U)	WB LR	PM	DNE	NA	9.4	A	NA	11	No	No
25) Horse Ranch Crk Rd at	WB LR	AM	DNE	NA	11.8	B	NA	177	No	No
Harvest Glen Ln (U)	WB LR	PM	DNE	NA	11.2	B	NA	82	No	No
26) Horse Ranch Crk Rd at	WB LR	AM	DNE	NA	16.0	C	NA	255	No	No
Pardee South Loop (U)	WB LR	PM	DNE	NA	13.8	B	NA	110	No	No
27) Horse Ranch Crk Rd at	All-Way	AM	DNE	NA	12.8	B	NA	144	No	No
School/Park Access (U)	All-Way	PM	DNE	NA	9.6	A	NA	62	No	No
28) Horse Ranch Crk Rd	EB LR	AM	DNE	NA	11.4	B	NA	128	No	No
at Street R (U)	EB LR	PM	DNE	NA	13.3	B	NA	137	No	No
29) Pankey/Pala Mesa Dr	WB LR	AM	DNE	NA	8.9	A	NA	109	No	No
at Street R (U)	WB LR	PM	DNE	NA	9.1	A	NA	54	No	No

Notes: 1) Intersection Analysis - (S) Signalized, (U) Unsignalized 2) Delay - HCM Control Delay in seconds. 3) LOS: Level of Service. 4) Delta is the increase in delay from project. 5) CM Vol: Critical Movement Volume used to show project volumes on the critical movement. 6) County Sig: is the project have a calculated impact based on the critical volume (Yes or No). 7) CMP Sig: Congention Mangement Program significant impact based on CMP criteria (Yes or No). DNE: Does Not Exist. NA: Not Applicable

TABLE 2.3-6A
EXISTING + PROJECT SEGMENT ADT VOLUMES AND LOS

Segment	Sept 2005 Circulation Element Class.	Existing					Project	Existing + Project					County Sig Impact?	CMP Sig Impact?
		Daily Volume	# of Lanes	LOS E Capacity	V/C	LOS	Daily Volume	Daily Volume	LOS E Capacity	V/C	LOS	Change in V/C		
Old Highway 395														
East Mission Road to Reche Road	Collector	5,155	2	16,200	0.318	C	1,583	6,738	16,200	0.416	C	0.098	No	No
Reche Road to Stewart Canyon Road	Collector	5,646	2	16,200	0.349	C	2,035	7,681	16,200	0.474	D	0.126	No	No
Pala Mesa Drive to SR-76 (Pala Road)	Collector	8,302	2	16,200	0.512	D	791	9,093	16,200	0.561	D	0.049	No	No
Stewart Canyon Road														
Old Hwy 395 to Horse Ranch Creek Rd	Collector	590	2	16,200	0.036	A	2,148	2,738	16,200	0.169	B	0.133	No	No
Pankey Road														
Street R/Pankey Place to SR-76 (Pala Rd)	Light Collector	0	2	16,200	0.000	A	565	565	16,200	0.035	A	0.035	No	No
Horse Ranch Creek Road														
Stewart Canyon Rd to Baltimore Oriole (#23)	Light Collector	40	2	16,200	0.002	A	2,148	2,188	16,200	0.135	B	0.135	No	No
Baltimore Oriole (#23) to Longspur Rd (#24)	Light Collector	0	2	16,200	0.000	A	2,322	2,322	16,200	0.143	B	0.143	No	No
Longspur Rd (#24) to Harvest Glen Ln (#25)	Light Collector	0	2	16,200	0.000	A	2,577	2,577	16,200	0.159	B	0.159	No	No
Harvest Glen Ln (#25) to Intersection (#26)	Light Collector	0	2	16,200	0.000	A	3,834	3,834	16,200	0.237	B	0.237	No	No
Intersection (#26) to Park/School (#27)	Light Collector	0	2	16,200	0.000	A	5,681	5,681	16,200	0.351	C	0.351	No	No
Park/Sch (#27) to Street R/Pankey Pl (#28)	Light Collector	0	2	16,200	0.000	A	5,794	5,794	16,200	0.358	C	0.358	No	No
Street R/Pankey Pl (#28) to SR-76 (Pala Rd)	Light Collector	0	2	16,200	0.000	A	3,617	3,617	16,200	0.223	B	0.223	No	No
Pala Mesa Drive														
Old Highway 395 to Street R/Pankey Pl	Light Collector	0	2	16,200	0.000	A	1,244	1,244	16,200	0.077	A	0.077	No	No
Street R/Pankey Place														
Pala Mesa/Pankey to Horse Ranch Creek Rd	Light Collector	0	2	16,200	0.000	A	1,809	1,809	16,200	0.112	A	0.112	No	No

Notes:Classification (Sept 2005 Circulation Element). Daily volume is a 24 hour volume. LOS: Level of Service. V/C: Volume to Capacity ratio.
Daily volume is a 24 hour volume. LOS: Level of Service. V/C: Volume to Capacity ratio.

TABLE 2.3-6B
EXISTING + PROJECT STATE ROUTE VOLUMES AND LOS (AM/PM)

State Route 76	Lanes in	AM (Eastbound)					Project			Change In			AM (Westbound)					Project			Change In		v/c	
Study Limits	each dir	E vol	Dir	Cap	v/c	LOS	Vol	E+P	v/c	LOS	v/c	Sig	Vol	Dir	Cap	v/c	LOS	Vol	E+P	v/c	Sig	Delta	Sig
Via Monserate to Gird Rd	1	808	EB	950	0.85	D	16	824	0.87	**E**	0.02	**Yes**	895	WB	950	0.94	**E**	48	943	0.99	**E**	0.05	**Yes**
Gird Rd to Sage Rd	1	740	EB	950	0.78	D	16	756	0.80	D	0.02	No	542	WB	950	0.57	C	48	590	0.62	C	0.05	No
Sage Rd to Old Hwy 395	1	760	EB	950	0.80	D	16	776	0.82	D	0.02	No	534	WB	950	0.56	C	48	582	0.61	C	0.05	No
Old Hwy 395 to I-15 SB Ramps	2	1507	EB	2050	0.74	D	4	1511	0.74	D	0.00	No	665	WB	2028	0.33	B	14	679	0.33	B	0.01	No
I-15 SB Ramps to I-15 NB Ramps	1	844	EB	950	0.89	**E**	22	866	0.91	**E**	0.02	**Yes**	539	WB	950	0.57	C	150	689	0.73	D	0.16	No
I-15 NB Ramps to Pankey Rd	2	559	EB	3100	0.18	A	67	626	0.20	A	0.02	No	606	WB	3030	0.20	A	204	810	0.27	A	0.07	No
Pankey Rd to Horse Ranch Creek Rd	2	589	EB	1806	0.33	B	60	649	0.36	B	0.03	No	540	WB	2028	0.27	A	184	724	0.36	B	0.09	No

Source: SANDAG Hwycov 2007. Notes: Dir = Direction. Vol = Volume. Cap = Capacity. v/c = volume to capacity ratio. LOS = Level of Service.

State Route 76	Lanes in	PM (Eastbound)					Project			Change In			PM (Westbound)					Project			Change In		
Study Limits	each dir	E Vol	Dir	Cap	v/c	LOS	Vol	E+P	v/c	LOS	v/c	Sig	E Vol	Dir	Cap	v/c	LOS	Vol	E+P	v/c	LOS	v/c	Sig
Via Monserate to Gird Rd	1	1077	EB	950	1.13	**F**	55	1132	1.19	**F**	0.06	**Yes**	786	WB	950	0.83	D	24	810	0.85	D	0.03	No
Gird Rd to Sage Rd	1	645	EB	950	0.68	C	55	700	0.74	D	0.06	No	742	WB	950	0.78	D	24	766	0.81	D	0.03	No
Sage Rd to Old Hwy 395	1	638	EB	950	0.67	C	55	693	0.73	D	0.06	No	768	WB	950	0.81	D	24	792	0.83	D	0.03	No
Old Hwy 395 to I-15 SB Ramps	2	816	EB	2050	0.40	B	16	832	0.41	B	0.01	No	1258	WB	2028	0.62	C	7	1265	0.62	C	0.00	No
I-15 SB Ramps to I-15 NB Ramps	1	718	EB	950	0.76	D	79	797	0.84	D	0.08	No	1153	WB	950	1.21	**F**	75	1228	1.29	**F**	0.08	**Yes**
I-15 NB Ramps to Pankey Rd	2	696	EB	3100	0.22	A	238	934	0.30	A	0.08	No	820	WB	3030	0.27	A	102	922	0.30	A	0.03	No
Pankey Rd to Horse Ranch Creek Rd	2	631	EB	1806	0.35	B	214	845	0.47	B	0.12	No	897	WB	2028	0.44	B	92	989	0.49	B	0.05	No

Source: SANDAG Hwycov 2007. Notes: Dir = Direction. Vol = Volume. Cap = Capacity. v/c = volume to capacity ratio. LOS = Level of Service.

TABLE 2.3-7
EXISTING + PROJECT FREEWAY VOLUMES AND LOS

Freeway	**I-15**				**I-15**				**I-15**			
Segment	Rainbow Valley Blvd to Mission Rd				Mission Rd to SR-76 (Pala Rd)				SR-76 to Escondido Hwy (Old 395)			
Existing (Year 2006)												
ADT	136,000				127,000				120,000			
Peak Hour	A M		P M		A M		P M		A M		P M	
Direction	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
Number of Lanes	4	4	4	4	4	4	4	4	4	4	4	4
Capacity (1)	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400
K Factor (2)	0.0619	0.0619	0.0738	0.0738	0.0619	0.0619	0.0738	0.0738	0.059	0.059	0.0723	0.0723
D Factor (3)	0.1653	0.8347	0.6398	0.3602	0.1653	0.8347	0.6398	0.3602	0.1989	0.8011	0.6955	0.3045
Truck Factor (4)	0.9186	0.9186	0.9186	0.9186	0.9186	0.9186	0.9186	0.9186	0.8977	0.8977	0.8977	0.8977
Peak Hour Volume	1,515	7,650	6,991	3,936	1,415	7,143	6,528	3,675	1,569	6,318	6,722	2,943
Volume to Capacity	0.161	0.814	0.744	0.419	0.150	0.760	0.694	0.391	0.167	0.672	0.715	0.313
LOS	A	D	C	A	A	C	C	A	A	C	C	A
Project Pk Hr Vol	136	45	69	158	54	18	27	63	45	136	159	68
Existing + Project												
Peak Hour Volume	1,651	7,695	7,060	4,094	1,469	7,161	6,555	3,738	1,614	6,454	6,881	3,011
Volume to Capacity	0.176	0.819	0.751	0.435	0.156	0.762	0.697	0.398	0.172	0.687	0.732	0.320
LOS	A	D	C	B	A	C	C	A	A	C	C	A
Increase in V/C	0.014	0.005	0.007	0.017	0.006	0.002	0.003	0.007	0.005	0.014	0.017	0.007
Direct Impact?	No	No	No	No	No	No	No	No	No	No	No	No
CMP Impact?	No	No	No	No	No	No	No	No	No	No	No	No

Notes: (1) Capacity of 2,350 passenger cars per hour per lane (pcphpl) from Caltrans' Guide for the Preparation of Traffic Impact Studies, Dec 2002. (2) Latest K factor from Caltrans (based on 2005 data), which is the percentage of Annual Average Daily Traffic (AADT) in both directions. (3) Latest D factor from Caltrans (based on 2005 data), which when multiplied by K and ADT will provide peak hour volume. (4) Latest truck factor from Caltrans (based on 2000 data). CMP: Congestion Management Program impact.

TABLE 2.3-8
CUMULATIVE PROJECTS

#	Project Reference	Project Name	Location	Area (acres)	Proposed Improvements
1	TM 5338 GPA 03-004	Campus Park	Just north of SR 76, 0.25 mile east of I-15	417	Mixed-use development, including: 521 single family dwelling units, 555 multi-family dwelling units, a town center (retail) of 61,200 square feet, an office building with 157,000 square feet, a sports complex of 5.2 acres and a small neighborhood park.
2	TM 5424, S 05-014, SPA 05-001 GPA 05-003 REZ 05-005	Campus Park West	Northeast quadrant of I-15 and SR 76	118.5	Mixed-use development including approximately 395 MFR units, 110,000 s.f. General Commercial, 10 acres Highway Commercial and 300,000 s.f. Office Professional. Located mostly north of SR-76 with a portion south of SR-76.
3	TM 5187 RPL[11] SPA 99-005 MUP 99-020 REZ 99-020 MUP/REZ 04-024	Pala Mesa Highlands	West of Old Highway 395 between Pala Mesa Drive and Via Belamonte	84.6	Maximum of 130 SFR. Density 1.6 DU/acre. Lot sizes vary from 5,500 s.f. to 23,500 s.f., two parks totaling 4.3 acres, trails, 36.5 acres of open space. SPA to allow clustering.
4	TM 4729 RPL[3] TE	Tedder TM	South side of Pala Mesa Drive, west of I-15 and east of Daisy Lane	29.5	Split lot into 13 SFR lots, ranging in size from 1.0 to 6.43 acres net.
5	TPM 20830	Hukari subdivision	Northern terminus of Mountain View Road and West Lilac Road on west side of Bonsall	30	Minor residential subdivision with road improvements. 4 SFR lots plus one remainder lot (3.4 to 7.7 net acres each).
6	TM 5532 S 07-012	Fallbrook Ranch	East of Old Highway 395 and Sterling View Drive (at Mission Road), Fallbrook		11 SFR lots
7	MUP 03-127	Los Willows Inn and Spa	532 Stewart Canyon Road		Add additional units to a Bed and Breakfast
8	TPM 20411	Reeve TPM	2987 Sumac Road, Fallbrook	8.8	Minor residential subdivision. 3 SFR lots (2-acres minimum).
9	TPM 20491	Evans TPM	West side of Sage Road between Sumac Road and Pala Road, Fallbrook	4.10	Minor subdivision into 2 residential/ agricultural parcels (2.00 and 2.10 acres). Private septic system.
10	TPM 20841	Bridge Pac West I TPM	3321 Sage Road, Fallbrook	15.90	Minor residential subdivision. 4 SFR lots plus one remainder lot (2.04, 2.08, 2.12, 2.14 and remainder 7.08 net acres each).
11	SPA 03-005 R 00-000 MUP 00-000 P 74-120W[1] P 74-121M[10] ; MUP 03-006; MUP 04-005	Pala Mesa Resort	2001 Old Highway 395 at Tecalote Lane, north of SR 76 and immediately west of I-15, Fallbrook	181.2	Specific Plan Amendment for modification and construction of new recreation and resort-related facilities. Addition of 186 resort rooms and wedding facility. Expansion of resort by 6 acres.

TABLE 2.3-8
CUMULATIVE PROJECTS
(CONTINUED)

#	Project Reference	Project Name	Location	Area (acres)	Proposed Improvements
12	TPM 20431 S 98-006	Lung TPM	Citrus Drive and Calle Canonero, Fallbrook	10.7	Minor residential subdivision. 2 SFR lots (6.7 and 4.0 acres)
13	TPM 20440	Chipman TPM	East side of Citrus Lane between Peony Drive and Dos Ninos, Fallbrook	13.54	Minor residential subdivision. 4 SFR lots plus one remainder lot, ranging from 2.13 to 2.85 net acres each and remainder 4.00 net acres. Septic system.
14	TPM 20484	Bierman TPM	4065 Calle Canonero, Fallbrook, south of Vern Drive and west of Lorita Lane	9.91	Minor residential subdivision. 4 SFR lots, ranging from 2.01 to 2.19 net acres each. Septic system.
15	S 04-026	Cooke Residence	3974 Citrus Drive between Wilt Road and Vern Drive	N/A	4,723 s.f. SFR
16	TPM 20581	Treister TPM	Donut-shaped parcel surrounding 401 Ranger Road, Fallbrook	21.81	Minor residential subdivision. 4 SFR lots plus one remainder lot.
17	TPM 20793 03-02-068	Mission Ridge Road TPM	235 Mission Ridge Road east of I-15 off Mission Road, Fallbrook	19.55	Minor residential subdivision. 4 SFR lots.
18	TM 5413	Rancho Alegre TPM	West side of Ranger Road approx. 0.4 mile north of Reche Road	70	Part of 116-acre subdivision (33 lots). This project consists of 20 lots in the eastern portion of property and proposes a different street alignment, grading, and lot arrangement.
19	TPM 20853	Rarick TPM	3261 Reche Road, Fallbrook	8.77	Minor residential subdivision. 4 SFR lots (ranging from 2.02 to 2.25 acres each). Septic system.
20	TPM 20936	Fernandez TPM	3838 Foxglove Lane, Fallbrook	10.4	Minor residential subdivision. 4 SFR lots. Minimum lot size 2 acres. 2 existing SFR on site.
21	TPM 20944	Rabuchin TPM	4065 Calle Canonero, Fallbrook	9.91	Subdivision of 2 lots into 4 SFR lots. Existing SFR on site
22	NA	Pala Casino	Pala Road and Pala Mission Road	TBD	187,300 s.f. casino, hotel, theater.
23	MUP 87-021 RPL[2] REZ P87-001 RPL[2]	Rosemary's Mountain/ Palomar Aggregates Quarry	North side of SR 76, 1.25 miles east of I-15	96.4	Aggregate rock quarry and processing plants for concrete and asphalt. Approximately 22 million tons of rock would be mined over 20 years. Realignment of SR 76 from Project site west to I-15. Reclamation Plan to designate lower portion of site as water storage reservoir after completion of mining activities.
24	TPM 20542	Patapoff Minor Residential Subdivision	Southern end of Rainbow Hills Road	59.1	Subdivide property into four parcels of 4.3 acres, 4.2 acres, 9.6 acres, 8acres, and a 33-acre parcel

TABLE 2.3-8
CUMULATIVE PROJECTS
(CONTINUED)

#	Project Reference	Project Name	Location	Area (acres)	Proposed Improvements
25	TM 5321	Prominence at Pala	Pala Del Norte Road. 1/3 mile north of SR-76 and approximately two miles west of the Pala Indian Reservation	346.6	Subdivide the property into 30 SFR and two open space lots ranging in size from 4 to 96 acres
26	NA	Palomar College North Education Center District Master Plan	East side of I-15 between Pankey Road and Pala Mesa Heights Drive	85	New Community College campus to serve approximately 12,000 students, to include classroom and administration buildings, parking, open space, athletic fields, and off-site road, water and sewer improvements.
27	NA	Caltrans Realignment of SR 76	From I-15 to west of Rice Canyon Road	NA	Realignment and widening of roadway, improvements to northbound I-15 on- and off-Ramp.
28	NA	San Luis Rey Municipal Water District (SLRMWD) Water, Wastewater and Recycled Water Master Plan	SLRMWD service area and vicinity, north and south of SR-76 between I-15 and Pala Temecula Road	Over 3,000	Exploration of pipeline and water storage options.
29	TM 5231		Canonita Drive and Old Hwy 395, Fallbrook	30.48	39 condo units
30	TM 5276		Aqueduct Road and Via Urner, Bonsall	12.8	8 SFR lots
31	TM 5346		Old Hwy 395 and Via Urner, Bonsall	38.4	9 SFR lots
32	TM 5410	Marquart Ranch	West Lilac Road and Mesa Lilac Road, Bonsall	44.2	9 SFR lots. Includes improvements to West Lilac Road and Mesa Lilac Road, and drainage improvements.
33	TM 5449	Fallbrook Oaks	Reche Road and Ranger Road, Fallbrook	26	19 SFR lots
34	TM 5469	Ridge Creek Drive	Ridge Creek east of Live Oak Park Road and Ridge Drive, Fallbrook	30.4	14 SFR lots
35	TM 5499	Club Estates	SR 76 east of Cole Grade Road at Pauma Valley Drive	48.3	31 SFR lots
36	TM 5540; MUP 07-007	Oak Tree Ranch TM	15560 Spring Valley Road	9.95	24 SFR
37	TM 5545	Turnbull TM	32979 Temet Drive	22.9	17 lots
38	TPM 20913	Wexler TPM		2.54	4 lots
39	TM 5223 MUP 00-030	Shadow Run Ranch	Shadow Run Ranch, SR-76 and Adams Drive, Pala	263	54 SFR lots and 2 open space lots. MUP filed concurrently for Planned Residential Development that would cluster residential development on minimum 2-acre lots.

TABLE 2.3-8
CUMULATIVE PROJECTS
(CONTINUED)

#	Project Reference	Project Name	Location	Area (acres)	Proposed Improvements
40	TPM 20896	Diana Acres	Adams Drive off SR-76, Pauma Valley		3 lots
41	TPM 20804	Hunter Subdivsion	15550 Adams Drive	7.5	3 lots
42	TPM 20538	Burge TPM	34487 Citracado Drive, Pala	12.58	4 lots plus remainder
43	MUP 99-001	Pauma Valley Packing Company	34188 Hampton Road	4.14	Packing and processing
44	TM 5223; MUP 00-030	Shadow Run Ranch/Schoepe-Pauma TM	15040 Adams Drive	263.17	13 lots
45	TM 5508	Warner Ranch	Pala-Pauma	513	732 SFR lots, 168 condo units, community park, fire station lot
46	CASINO	Pauma Casino and Hotel	Approximately 11 miles east of I-15 along SR-76		400 room hotel and 171,000 s.f. casino
47	TPM 20451	De Jong/Pala Minor Subdivision	Canonita Drive between I-15 and Tecalote Drive	5.62	Minor residential subdivision. 3 SFR lots (1.03, 2.06 and 2.31 net acres each).
48	TPM 20800	Crossroads Investors Minor Subdivision	Ranger Road, Fallbrook	15.5	Minor residential subdivision. 4 SFR lots plus one remainder lot. Existing SFR and grove on site
49	TM 5217/5225/5227/5228 MUP 00-027	Chaffin/Red Mountain Ranch Subdivisions	Rainbow Glen Road and Red Mountain Dam Road, Fallbrook	455.9	TM 5217: Residential development with 29 SFR lots (2.28 to 18.33 acres) and 2 biological open space zones. TM 5225: 55 acres divided into 6 SFR lots (8.1 to 13.9 acres). TM 5227: 44.5 acres divided into 4 SFR lots (8.08 to 13.71 acres each).TM 5228: 19.1 acres divided into 2 lots (8.4 and 10.7 acres).
50	TPM 20505	John Collins TPM	Margarita in Fallbrook	8.29	2 lots
51	TPM 21085	Brannon Trust TPM Remai	411 Yucca Road, Fallbrook		4+ lots
52	TPM 20976	Dien N Do TPM	405 Ranger Road		4+ lots
53	TPM 20373	Tim Rosa TPM	2973 Los Alisos Drive	13	4 lots plus remainder
54	TPM 20427	Leising TPM	1246 Via Vista	10.83	4 lots
55	TPM 20434	Atteberry TPM	1166 Sierra Bonita	9	3 lots
56	TPM 20980	Johnson TPM	3035 Trelawney Lane		2 lots
57	TPM 20381	Chipman TPM	Camino Zasa, Fallbrook	24.5	4 lots plus remainder
58	TPM 21047	American Lotus Bhuddist Association TPM	Reche Road at Rabbit Hill, Fallbrook		4 lots plus remainder lot

TABLE 2.3-8
CUMULATIVE PROJECTS
(CONTINUED)

#	Project Reference	Project Name	Location	Area (acres)	Proposed Improvements
59	TM 5547	Reche Road TM	3129 Reche Road, Bonsall	33.5	12 SFR lots
60	TM 5158; RPL3	Palisades Estates	3880 Dos Niños Road/Elevado Road	408.4	51 lots
61	TPM 19742	Dion TPM and time extension	3562 Canonita Drive	7.5	2 lots
62	TPM 20476	Patricia Daniels TPM	3609 Canonita Road, Fallbrook	13.2	4 lots plus remainder
63	TPM 20443	Cameron Subdivision	2644 Vista de Palomar, Fallbrook. North side of Vista de Palomar between Post Hill and Via Rancheros	11.31	Minor residential subdivision. 3 SFR lots (2.22, 2.44 and 6.37 acres each). Septic system.
64	TPM 20473	Tesla Gray TPM	East end of Vista de Palomar, and north end of Old Post Road, Fallbrook	28.91	Minor residential subdivision. 4 SFR lots plus one remainder lot. Future development of 5 SFR
65	TPM 20592	Aspel TPM	3107 Old Post Road, Fallbrook	7.32	Minor residential subdivision. 2 SFR lots (2.09 and 5.20 acres each).
66	TPM 20317	James Patapoff TPM	2639 Via Alicia, Fallbrook	16.8	Subdivision of 16.8 acres into 4 lots plus a remainder lot
67	TPM 20503	Yew Tree Spring Water Corporation	3573 Diego Estates Drive, Fallbrook	7.48	3 residential lots
68	TPM 20610	Haugh, Granger TPM	Fallbrook	12.94	4 lots
69	TPM 20614; RPL1	Brown, Lee & Karen, TPM	3850 Gird Road	6.46	3 lots
70	TPM 20648	Pepper Drive TPM	3926 Flowerwood Lane	1.39	4 residential lots
71	TM 4971	Surf Properties TM	3545 Vista Corona	46.89	15 lots
72	TM 4908	Brook Hills TM	4061 La Cañada Road, Fallbrook	96.71	35 lots
73	MUP 02-011	Latter-Day Saints/Via Monserate	Fallbrook	7.96	17,000 sq. ft. church and meeting rooms
74	TM 4976; RPL4	Leeds and Strausss TM	North side of Olive Hill Road, near intersection with SR-76, Bonsall	45.76	17 SFR lots – TM time extension until 09/13/2009
75	TM 5398	Murray Davidson	3956 Pala Mesa Road, Bonsall	4.28	7 lots
76	TPM 20173	Shamrock Partners TPM	Shamrock Road, Bonsall	10	3 lots
77	TPM 20851	Crook TPM	32179 Shamrock Road		5 lots

TABLE 2.3-8
CUMULATIVE PROJECTS
(CONTINUED)

#	Project Reference	Project Name	Location	Area (acres)	Proposed Improvements
78	TPM 20729	Tabata Bonsall TPM RPL1	5546 Mission Road	33.75	4 lots
79	TPM 20874	Berezousky TPM (311 Same as one in original latch)	4040 Pala Mesa Drive, Fallbrook	3.11	Subdivision of 3.11 acre into 4 residential lots. Existing SFR on site
80	TPM 20932	Murray Davidson TPM	3956 Pala Mesa Road, Fallbrook		Subdivision of 1 lot into 4 SFR lots plus a remainder lot
81	TPM 21076	Sumac TPM	3111 Sumac Road		4 lots
82	S 03-024	Janikowski SFR	9686 Pala Road (SR 76), Fallbrook, on north side of SR 76	5.12	3,200 s.f. SFR
83	TPM 19827	Kratochvid TPM; expired map	Old Highway 395	12.3	4 lots
84	TPM 20319	Kohl TPM	7641 Mount Ararat Way, Bonsall	9.71	4 lots plus remainder
85	TPM 20541	Woodhead TPM	Mt. Ararat Way, Bonsall	12.54	4 lots plus remainder
86	TPM 20596	Rockefeller TPM	9590 Lilac Way, VC	5	2 lots
87	TPM 20763	McNulty TPM	32171 Dos Niñas	5.19	2 lots
88	TPM 20799	Stehly Caminito Quieto TPM	32009 Camto Quieto at West Lilac Road	11.69	4 lots
89	TPM 20845	Sanders TPM	West Lilac Road, 1.25 miles west of Old Highway 395		4 lots plus remainder lot
90	S 02-061	Pala Shopping Center	On Old Highway 395 just northwest of the intersection of I-15 and SR 76	3.88	Addition of 5 commercial buildings to an existing commercial site with grocery store.
91	TM 5489	Monserate TM	3624 Monserate Hill Road	24.6	7 SFR
92	TPM 21075	Dimitri, Diffendale, and Kirk TPM	Monserate Hill Road and Monserate Place		4 lots
93	TPM 20994	Madrigal TPM	1055 Rainbow Valley Boulevard near Old Hwy 395		3 lots
94	MUP 07-009	Singh Power Plant	4 miles NE of I-15 on Pala Del Norte Road, north of SR 76	8.5	Power Generation facility
95	37-AA-0032	Gregory Landfill	Approximately 3.5 miles east of I-15 on SR-76	1,770	Landfill site for solid waste

TM = Tentative Map; S = Site Plan; REZ = Rezone; MUP = Major Use Permit; TPM = Tentative Parcel Map; ZAP = Minor Use Permit; RPL = Replacement Map; MFR = multi-family residential; SFR = single-family residential
NA = Not available

TABLE 2.3-9
EXISTING + CUMULATIVE INTERSECTION LOS

Intersection and (Analysis)[1]	Movement	Peak Hour	Existing + Cumulative Delay[2]	Existing + Cumulative LOS[3]
1) SR-76 (Pala Rd) at	SB LR	AM	>500	**F**
Via Monserate (U)	SB LR	PM	>500	**F**
	All	AM	>500	**F**
	All	PM	>500	**F**
2) SR-76 (Pala Rd) at	All	AM	53.4	D
Gird Rd (S)	All	PM	110.3	**F**
3) SR-76 (Pala Rd) at	SB LR	AM	38.5	**E**
Sage Rd (U)	SB LR	PM	38.4	**E**
	All	AM	>500	**F**
	All	PM	>500	**F**
4) SR-76 (Pala Rd) at	All	AM	257.8	**F**
Old Hwy 395 (S)	All	PM	252.1	**F**
6) SR-76 (Pala Rd) at	All	AM	96.5	**F**
I-15 SB Ramps (S)	All	PM	133.2	**F**
7) SR-76 (Pala Rd) at	All	AM	77.3	**E**
I-15 NB Ramps (S)	All	PM	118.0	**F**
8) SR-76 (Pala Rd) at	NB LTR	AM	>500	**F**
Pankey Road (U)	NB LTR	PM	>500	**F**
	SB LTR	AM	>500	**F**
	SB LTR	PM	>500	**F**
9) SR-76 (Pala Rd) at	Future	AM	19.1	B
Horse Ranch Creek Rd (U)	Intersection	PM	19.1	B
10) SR-76 (Pala Rd) at	SB LR	AM	191.8	**F**
Rice Canyon Road (U)	SB LR	PM	>500	**F**
11) SR-76 (Pala Rd) at	NB LR	AM	78.5	**F**
Couser Canyon Road (U)	NB LR	PM	385.8	**F**
12) Old Highway 395 at	EB LR	AM	>500	**F**
Pala Mesa Dr (U)	EB LR	PM	>500	**F**
14) Old Highway 395 at	WB LTR	AM	>500	**F**
Stewart Canyon Road (U)	WB LTR	PM	>500	**F**
15) Old Highway 395 at	EB LR	AM	>500	**F**
Reche Road (U)	EB LR	PM	>500	**F**
	All	AM	>500	**F**
	All	PM	>500	**F**
19) Mission Road at	SB L	AM	49.0	D
Old Highway 395 (S)	SB L	PM	106.3	**F**
20) Mission Road at	SB LTR	AM	71.6	**E**
I-15 SB Ramps (S)	SB LTR	PM	63.0	**E**
21) Mission Road at	All	AM	28.6	C
I-15 NB Ramps (S)	All	PM	87.3	**F**
22) Stewart Canyon Rd at	EB LR	AM	10.5	B
HRCR/Pankey Road (U)	EB LR	PM	11.9	B
23) Horse Ranch Crk Rd at	WB LR	AM	16.1	B
Baltimore Oriole (S)	WB LR	PM	17.4	B
24) Horse Ranch Crk Rd at	All	AM	21.3	C
Longspur Rd (S)	All	PM	23.6	C
25) Horse Ranch Crk Rd at	WB LR	AM	13.0	B
Harvest Glen Ln (S)	WB LR	PM	17.1	B
26) Horse Ranch Crk Rd at	WB LR	AM	9.9	A
Pardee South Loop (S)	WB LR	PM	11.8	B
27) Horse Ranch Crk Rd at	All-Way	AM	0.0	A
School/Park Access (U)	All-Way	PM	0.0	A
28) Horse Ranch Crk Rd	EB LR	AM	6.8	A
at Street R (S)	EB LR	PM	10.3	B
29) Pankey/Pala Mesa Dr	WB LR	AM	24.8	C
at Street R (S)	WB LR	PM	36.3	D
31) SR-76 (Mission Ave) at	All	AM	277.9	**F**
E. Vista Way (S)	All	PM	257.7	**F**
32) SR-76 (Mission Ave) at	All	AM	310.8	**F**
North River Rd (S)	All	PM	261.0	**F**
33) SR-76 (Mission Ave) at	All	AM	270.0	**F**
Olive Hill Rd (S)	All	PM	179.4	**F**
34) SR-76 (Mission Ave) at	All	AM	58.1	**E**
S. Mission Rd (S)	All	PM	83.5	**F**
37) SR-76 (Pala Rd.) at	All	AM	31.1	C
Pala Mission Rd. (S)	All	PM	42.3	D

Notes: 1) Intersection Analysis - (S) Signalized, (U) Unsignalized 2) Delay - HCM Control Delay in seconds. 3) LOS: Level of Service.

TABLE 2.3-10A
EXISTING + CUMULATIVE SEGMENT ADT VOLUMES AND LOS

Segment	Sept 2005 Circulation Element Class. (proposed)	Existing # of Lanes [Proposed by Other Projects]	Existing + Cumulative			
			Daily Volume	LOS E Capacity	V/C	LOS
Old Highway 395						
East Mission Road to Reche Road	Collector	2	18,317	16,200	1.13	**F**
Reche Road to Stewart Canyon Road	Collector	2	21,265	16,200	1.31	**F**
Pala Mesa Drive to SR-76 (Pala Road)	Collector	2	20,109	16,200	1.24	**F**
Stewart Canyon Road						
Old Hwy 395 to Horse Ranch Creek Rd	Collector	2	6,624	16,200	0.41	C
Pankey Road						
Street R/Pankey Place to SR-76 (Pala Rd)	(Collector)	[Pappas 4 lanes]	8,244	34,200	0.24	A
SR-76 (Pala Road) to Shearer Crossing	Light Collector	2	7,657	16,200	0.47	D
Horse Ranch Creek Road						
Stewart Canyon Rd to Baltimore Oriole (#23)	Light Collector	2	5,745	16,200	0.35	C
Baltimore Oriole (#23) to Longspur Rd (#24)	(Boulevard 4.2A)	[PPP 4 lanes]	9,052	27,000	0.34	Un
Longspur Rd (#24) to Harvest Glen Ln (#25)	(Boulevard 4.2A)	[PPP 4 lanes]	13,363	27,000	0.49	Un
Harvest Glen Ln (#25) to Intersection (#26)	(Boulevard 4.2A)	[PPP 4 lanes]	16,955	27,000	0.63	Un
Intersection (#26) to Park/School (#27)	(Boulevard 4.2A)	[PPP 4 lanes]	16,824	27,000	0.62	Un
Park/Sch (#27) to Street R/Pankey Pl (#28)	(Boulevard 4.2A)	[PPP 4 lanes]	16,972	27,000	0.63	Un
Street R/Pankey Pl (#28) to SR-76 (Pala Rd)	(Boulevard 4.2A)	[PPP 4 lanes]	9,968	27,000	0.37	Un
Pala Mesa Drive						
Old Highway 395 to Street R/Pankey Pl	(Light Collector)	2	6,178	16,200	0.38	C
Street R/Pankey Place						
Pala Mesa/Pankey to Horse Ranch Creek Rd	(Light Collector)	2	8,398	16,200	0.52	D

Notes: (proposed GP classification). [proposed party to implement improvement. PPP = Pardee, Passerelle, and Palomar] [Granite 4 lanes until their driveway] LOS: Level of Service. V/C: Volume to Capacity ratio. Daily volumes is a 24 hour volume. LOS for proposed classification is classification is identiified as "Un" as under capacity and "Ov" for over capacity.

TABLE 2.3-10B
EXISTING + CUMULATIVE STATE ROUTE VOLUMES AND LOS

State Route 76	Lanes in	E+C	AM (Eastbound)				E+C	AM (Westbound)				E+C	PM (Eastbound)				E+C	PM (Westbound)			
Study Limits (cumulative)	each dir	Vol	Dir	Cap	v/c	LOS	Vol	Dir	Cap	v/c	LOS	Vol	Dir	Cap	v/c	LOS	Vol	Dir	Cap	v/c	LOS
E. Vista Way to North River Rd	1	1176	EB	950	1.24	**F**	1950	WB	950	2.05	**F**	2019	EB	950	2.13	**F**	1402	WB	950	1.48	**F**
North River Rd to Olive Hill Rd	1	1380	EB	950	1.45	**F**	2387	WB	950	2.51	**F**	2553	EB	950	2.69	**F**	1594	WB	950	1.68	**F**
Olive Hill Rd to S Mission Rd	1	1485	EB	950	1.56	**F**	2526	WB	950	2.66	**F**	2528	EB	950	2.66	**F**	1831	WB	950	1.93	**F**
S Mission Rd to Via Monserate	1	1079	EB	950	1.14	**F**	1692	WB	950	1.78	**F**	2225	EB	950	2.34	**F**	1481	WB	950	1.56	**F**
Via Monserate to Gird Rd	1	1124	EB	950	1.18	**F**	1748	WB	950	1.84	**F**	2022	EB	950	2.13	**F**	1337	WB	950	1.41	**F**
Gird Rd to Sage Rd	1	1115	EB	950	1.17	**F**	1291	WB	950	1.36	**F**	1345	EB	950	1.42	**F**	1212	WB	950	1.28	**F**
Sage Rd to Old Hwy 395	1	1202	EB	950	1.27	**F**	1313	WB	950	1.38	**F**	1468	EB	950	1.55	**F**	1424	WB	950	1.50	**F**
Old Hwy 395 to I-15 SB Ramps	2	1339	EB	2050	0.65	C	1251	WB	2028	0.62	C	1470	EB	2050	0.72	D	1524	WB	2028	0.75	D
I-15 SB Ramps to I-15 NB Ramps	1	1000	EB	950	1.05	**F**	844	WB	950	0.89	**E**	1278	EB	950	1.35	**F**	1210	WB	950	1.27	**F**
I-15 NB Ramps to Pankey Rd	2	775	EB	3100	0.25	A	841	WB	3030	0.28	A	1211	EB	3100	0.39	B	960	WB	3030	0.32	B
Pankey Rd to Horse Ranch Creek Rd	2	544	EB	1806	0.30	A	1000	WB	2028	0.49	B	1066	EB	1806	0.59	C	1265	WB	2028	0.62	C
Horse Ranch Creek Rd to Rice Cyn	1	570	EB	950	0.60	C	1173	WB	950	1.23	**F**	1263	EB	950	1.33	**F**	1317	WB	950	1.39	**F**
Rice Cyn to Couser Cyn	1	1690	EB	950	1.78	**F**	829	WB	950	0.87	**E**	1015	EB	950	1.07	**F**	1303	WB	950	1.37	**F**
Couser Cyn to Pala Mission Rd	1	823	EB	950	0.87	**E**	667	WB	950	0.70	C	831	EB	950	0.87	**E**	1211	WB	950	1.27	**F**

Source: SANDAG Year 2030 Cumulative Map. Notes: Dir = Direction. Vol = Volume. Cap = Capacity. v/c = volume to capacity ratio. LOS = Level of Service. E: Existing. C: Cumulative

TABLE 2.3-11
EXISTING + CUMULATIVE FREEWAY VOLUMES AND LOS

Freeway	**I-15**				**I-15**				**I-15**			
Segment	Rainbow Valley Blvd to Mission Rd				Mission Rd to SR-76 (Pala Rd)				SR-76 to Escondido Hwy (Old 395)			
Existing (Year 2006)												
ADT	136,000				127,000				120,000			
Peak Hour	A M		P M		A M		P M		A M		P M	
Direction	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
Number of Lanes	4	4	4	4	4	4	4	4	4	4	4	4
Capacity (1)	9400	9400	9400	9400	9400	9400	9400	9400	9400	9400	9400	9400
K Factor (2)	0.0619	0.0619	0.0738	0.0738	0.0619	0.0619	0.0738	0.0738	0.059	0.059	0.0723	0.0723
D Factor (3)	0.1653	0.8347	0.6398	0.3602	0.1653	0.8347	0.6398	0.3602	0.1989	0.8011	0.6955	0.3045
Truck Factor (4)	0.9186	0.9186	0.9186	0.9186	0.9186	0.9186	0.9186	0.9186	0.8977	0.8977	0.8977	0.8977
Peak Hour Volume	1514.87	7649.51	6990.58	3935.61	1414.62	7143.29	6527.97	3675.17	1568.69	6318.13	6721.8	2942.9
Volume to Capacity	0.16116	0.81378	0.74368	0.41868	0.15049	0.75992	0.69446	0.39098	0.16688	0.67214	0.71508	0.31307
LOS	A	D	C	A	A	C	C	A	A	C	C	A
Cumulative Pk Hr Vol	337	340	472	542	201	253	351	321	736	974	1340	906
Existing+Cumulative												
Peak Hour Volume	1851.87	7989.51	7462.58	4477.61	1615.62	7396.29	6878.97	3996.17	2304.69	7292.13	8061.8	3848.9
Volume to Capacity	0.19701	0.84995	0.79389	0.47634	0.17187	0.78684	0.7318	0.42512	0.24518	0.77576	0.85764	0.40946
LOS	A	D	C	B	A	C	C	B	A	C	D	A

Notes: (1) Capacity of 2,350 passenger cars per hour per lane (pcphpl) from Caltrans' Guide for the Preparation of Traffic Impact Studies, Dec 2002. (2) Latest K factor from Caltrans (based on 2005 data), which is the percentage of Annual Average Daily Traffic (AADT) in both directions. (3) Latest D factor from Caltrans (based on 2005 data), which when multiplied by K and ADT will provide peak hour volume. (4) Latest truck factor from Caltrans (based on 2000 data).

TABLE 2.3-12
EXISTING + CUMULATIVE + PROJECT INTERSECTION LOS

Intersection and (Analysis)[1]	Movement	Peak Hour	Existing		Existing + Cumulative + Project			Cumulative Impact?[5]
			Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delta[4]	
1) SR-76 (Pala Rd) at	SB LR	AM	86.1	**F**	>500	**F**	>2.0	**Yes**
Via Monserate (U)	SB LR	PM	91.4	**F**	>500	**F**	>2.0	**Yes**
	All	AM	5.0	A	>500	**F**	>2.0	**Yes**
	All	PM	2.9	A	>500	**F**	>2.0	**Yes**
2) SR-76 (Pala Rd) at	All	AM	12.9	B	59.1	D	46.2	No
Gird Rd (S)	All	PM	12.6	B	118.0	**F**	105.4	**Yes**
3) SR-76 (Pala Rd) at	SB LR	AM	22.6	C	40.4	**E**	17.8	**Yes**
Sage Rd (U)	SB LR	PM	33.0	D	39.3	**E**	6.3	**Yes**
	All	AM	0.2	A	>500	**F**	>2.0	**Yes**
	All	PM	0.4	A	>500	**F**	>2.0	**Yes**
4) SR-76 (Pala Rd) at	All	AM	29.7	C	268.7	**F**	239.0	**Yes**
Old Hwy 395 (S)	All	PM	30.2	C	266.1	**F**	235.9	**Yes**
6) SR-76 (Pala Rd) at	All	AM	27.5	C	107.0	**F**	79.5	**Yes**
I-15 SB Ramps (S)	All	PM	26.4	C	140.1	**F**	113.7	**Yes**
7) SR-76 (Pala Rd) at	All	AM	22.4	C	86.6	**E**	64.2	**Yes**
I-15 NB Ramps (S)	All	PM	43.6	D	121.2	**F**	77.6	**Yes**
8) SR-76 (Pala Rd) at	NB LTR	AM	12.2	B	>500	**F**	>2.0	**Yes**
Pankey Road (U)	NB LTR	PM	14.6	B	>500	**F**	>2.0	**Yes**
	SB LTR	AM	0.0	A	>500	**F**	>2.0	**Yes**
	SB LTR	PM	0.0	A	>500	**F**	>2.0	**Yes**
9) SR-76 (Pala Rd) at	Future	AM	DNE	NA	21.0	B	NA	No
Horse Ranch Creek Rd (U)	Intersection	PM	DNE	NA	22.4	B	NA	No
10) SR-76 (Pala Rd) at	SB LR	AM	10.7	B	211.4	**F**	200.7	**Yes**
Rice Canyon Road (U)	SB LR	PM	12.9	B	>500	**F**	>2.0	**Yes**
11) SR-76 (Pala Rd) at	NB LR	AM	11.9	B	86.2	**F**	74.3	**Yes**
Couser Canyon Road (U)	NB LR	PM	14.2	B	427.4	**F**	413.2	**Yes**
12) Old Highway 395 at	EB LTR	AM	11.0	B	>500	**F**	>2.0	**Yes**
Pala Mesa Dr (U)	EB LTR	PM	11.1	B	>500	**F**	>2.0	**Yes**
14) Old Highway 395 at	WB LTR	AM	10.8	B	>500	**F**	>2.0	**Yes**
Stewart Canyon Road (U)	WB LTR	PM	11.9	B	>500	**F**	>2.0	**Yes**
15) Old Highway 395 at	EB LR	AM	18.4	C	>500	**F**	>2.0	**Yes**
Reche Road (U)	EB LR	PM	35.9	**E**	>500	**F**	>2.0	**Yes**
	All	AM	10.6	B	>500	**F**	>2.0	**Yes**
	All	PM	17.6	B	>500	**F**	>2.0	**Yes**
19) Mission Road at	SB L	AM	12.2	B	54.8	D	42.6	No
Old Highway 395 (S)	SB L	PM	23.0	C	113.0	**F**	90.0	**Yes**
20) Mission Road at	SB LTR	AM	20.6	C	75.6	**E**	55.0	**Yes**
I-15 SB Ramps (S)	SB LTR	PM	17.8	B	87.5	**E**	69.7	**Yes**
21) Mission Road at	All	AM	17.2	B	31.8	C	14.6	No
I-15 NB Ramps (S)	All	PM	37.5	D	95.8	**F**	58.3	**Yes**
22) Stewart Canyon Rd at	EB LR	AM	8.7	A	11.1	B	NA	No
HRCR/Pankey Road (U)	EB LR	PM	8.7	A	13.7	B	NA	No
23) Horse Ranch Crk Rd at	WB LR	AM	DNE	NA	17.8	B	NA	No
Baltimore Oriole (S)	WB LR	PM	DNE	NA	17.7	B	NA	No
24) Horse Ranch Crk Rd at	All	AM	DNE	NA	21.4	C	NA	No
Longspur Rd (S)	All	PM	DNE	NA	24.2	C	NA	No
25) Horse Ranch Crk Rd at	WB LR	AM	DNE	NA	17.7	B	NA	No
Harvest Glen Ln (S)	WB LR	PM	DNE	NA	26.0	B	NA	No
26) Horse Ranch Crk Rd at	WB LR	AM	DNE	NA	17.6	A	NA	No
Pardee South Loop (S)	WB LR	PM	DNE	NA	24.6	B	NA	No
27) Horse Ranch Crk Rd at	All-Way	AM	DNE	NA	15.2	A	NA	No
School/Park Access (U)	All-Way	PM	DNE	NA	18.1	A	NA	No
28) Horse Ranch Crk Rd	EB LR	AM	DNE	NA	7.8	A	NA	No
at Street R (S)	EB LR	PM	DNE	NA	12.2	B	NA	No
29) Pankey/Pala Mesa Dr	WB LR	AM	DNE	NA	24.8	C	NA	No
at Street R (S)	WB LR	PM	DNE	NA	43.3	D	NA	No
31) SR-76 (Mission Ave) at	All	AM	60.9	**E**	282.1	**F**	221.2	**Yes**
E. Vista Way (S)	All	PM	48.4	D	261.1	**F**	212.7	**Yes**
32) SR-76 (Mission Ave) at	All	AM	61.7	**E**	317.1	**F**	255.4	**Yes**
North River Rd (S)	All	PM	29.7	C	267.3	**F**	237.6	**Yes**
33) SR-76 (Mission Ave) at	All	AM	53.8	D	275.6	**F**	221.8	**Yes**
Olive Hill Rd (S)	All	PM	52.9	D	184.1	**F**	131.2	**Yes**
34) SR-76 (Mission Ave) at	All	AM	18.9	B	61.4	**E**	42.5	**Yes**
S. Mission Rd (S)	All	PM	21.5	C	88.0	**F**	66.5	**Yes**
37) SR-76 (Pala Rd.) at	All	AM	29.3	C	32.4	C	3.1	No
Pala Mission Rd. (S)	All	PM	32.4	C	42.6	D	10.2	No

Notes: 1) Intersection Analysis - (S) Signalized, (U) Unsignalized 2) Delay - HCM Control Delay in seconds. 3) LOS: Level of Service. 4) Delta is the increase in delay from cumulative and project traffic. 5) Cumulative impact due to project traffic and other cumulative traffic exceeding the allowable delta (yes or no). DNE: Does Not Exist. NA: Not Applicable

TABLE 2.3-13A
EXISTING + CUMULATIVE + PROJECT SEGMENT ADT VOLUMES AND LOS

Segment	Classification (as proposed)	Existing				Cumulative	Project	Existing + Cumulative + Project				
		Daily Volume	LOS E Capacity	V/C	LOS	Daily Volumes	Daily Volumes	Daily Volume	LOS E Capacity	V/C	LOS	Cumulative Impact?
Old Highway 395												
East Mission Road to Reche Road	Collector	5,155	16,200	0.32	C	13,609	1,136	19,900	16,200	1.23	**F**	**Yes**
Reche Road to Stewart Canyon Road	Collector	5,646	16,200	0.35	C	16,215	1,439	23,300	16,200	1.44	**F**	**Yes**
Pala Mesa Drive to SR-76 (Pala Road)	Collector	6,405	16,200	0.40	C	11,119	76	17,600	16,200	1.09	**F**	**Yes**
Stewart Canyon Road												
Old Hwy 395 to Horse Ranch Creek Rd	Collector	590	16,200	0.04	A	6,034	1,515	8,138	16,200	0.50	D	No
Pankey Road												
Street R/Pankey Place to SR-76 (Pala Rd)	Light Collector	0	34,200	0.00	A	8,244	379	8,622	34,200	0.25	D	No
Horse Ranch Creek Road												
Stewart Canyon Rd to Baltimore Oriole (#23)	Light Collector	40	16,200	0.00	A	5,705	1,515	7,260	16,200	0.45	D	No
Baltimore Oriole (#23) to Longspur Rd (#24)	(Boulevard 4.2A)	0	27,000	0.00	Un	9,052	2,068	11,119	27,000	0.41	Un	No
Longspur Rd (#24) to Harvest Glen Ln (#25)	(Boulevard 4.2A)	0	27,000	0.00	Un	13,363	2,777	16,140	27,000	0.60	Un	No
Harvest Glen Ln (#25) to Intersection (#26)	(Boulevard 4.2A)	0	27,000	0.00	Un	16,955	4,040	20,995	27,000	0.78	Un	No
Intersection (#26) to Park/School (#27)	(Boulevard 4.2A)	0	27,000	0.00	Un	16,824	4,946	21,770	27,000	0.81	Un	No
Park/Sch (#27) to Street R/Pankey Pl (#28)	(Boulevard 4.2A)	0	27,000	0.00	Un	16,972	4,946	21,918	27,000	0.81	Un	No
Street R/Pankey Pl (#28) to SR-76 (Pala Rd)	(Boulevard 4.2A)	0	27,000	0.00	Un	9,968	2,575	12,544	27,000	0.46	Un	No
Pala Mesa Drive												
Old Highway 395 to Street R/Pankey Pl	Light Collector	0	16,200	0.00	A	6,178	833	7,011	16,200	0.43	C	No
Street R/Pankey Place												
Pala Mesa/Pankey to Horse Ranch Creek Rd	Light Collector	0	16,200	0.00	0	8,398	1,969	10,367	16,200	0.64	D	No

Notes: Existing Classification Sept 2005 Circulation Element. Proposed classification = GP Update Circulation Element.
Un = Under Capacity. Daily volume is a 24 hour volume. LOS: Level of Service. V/C: Volume to Capacity ratio.

TABLE 2.3-13B
EXISTING + CUMULATIVE + PROJECT STATE ROUTE VOLUMES AND LOS (AM/PM)

State Route 76	Lanes in	E	AM (Eastbound)				C+P	E+C+P			v/c	Cumulative	E	AM (Westbound)				C+P	E+C+P			v/c	Cumulative
Study Limits	each dir	Vol	Dir	Cap	v/c	LOS	Vol	Vol	v/c	LOS	Delta	Impact?	Vol	Dir	Cap	v/c	LOS	Vol	Vol	v/c	Sig	Delta	Impact?
E. Vista Way to North River Rd	1	718	EB	950	0.76	D	469	1187	1.25	**F**	0.49	**Yes**	1040	WB	950	1.09	**F**	944	1984	2.09	**F**	0.99	**Yes**
North River Rd to Olive Hill Rd	1	852	EB	950	0.90	**E**	539	1391	1.46	**F**	0.57	**Yes**	1200	WB	950	1.26	**F**	1221	2421	2.55	**F**	1.29	**Yes**
Olive Hill Rd to S Mission Rd	1	1031	EB	950	1.09	**F**	467	1498	1.58	**F**	0.49	**Yes**	1245	WB	950	1.31	**F**	1322	2567	2.70	**F**	1.39	**Yes**
S Mission Rd to Via Monserate	1	745	EB	950	0.78	D	347	1092	1.15	**F**	0.37	**Yes**	901	WB	950	0.95	**E**	832	1733	1.82	**F**	0.88	**Yes**
Via Monserate to Gird Rd	1	808	EB	950	0.85	D	332	1140	1.20	**F**	0.35	**Yes**	895	WB	950	0.94	**E**	901	1796	1.89	**F**	0.95	**Yes**
Gird Rd to Sage Rd	1	740	EB	950	0.78	D	391	1131	1.19	**F**	0.41	**Yes**	542	WB	950	0.57	C	797	1339	1.41	**F**	0.84	**Yes**
Sage Rd to Old Hwy 395	1	760	EB	950	0.80	D	458	1218	1.28	**F**	0.48	**Yes**	534	WB	950	0.56	C	827	1361	1.43	**F**	0.87	**Yes**
Old Hwy 395 to I-15 SB Ramps	2	1507	EB	2050	0.74	D	93	1600	0.78	D	0.05	No	665	WB	2028	0.33	B	600	1265	0.62	C	0.30	No
I-15 SB Ramps to I-15 NB Ramps	1	844	EB	950	0.89	**E**	178	1022	1.08	**F**	0.19	**Yes**	539	WB	950	0.57	C	455	994	1.05	**F**	0.48	**Yes**
I-15 NB Ramps to Pankey Rd	2	559	EB	3100	0.18	A	283	842	0.27	A	0.09	No	606	WB	3030	0.20	A	439	1045	0.34	B	0.14	No
Pankey Rd to Horse Ranch Creek Rd	2	589	EB	1806	0.33	B	15	604	0.33	B	0.01	No	540	WB	2028	0.27	A	644	1184	0.58	C	0.32	No
Horse Ranch Creek Rd to Rice Cyn	1	588	EB	950	0.62	C	16	604	0.64	C	0.02	No	539	WB	950	0.57	C	645	1184	1.25	**F**	0.68	**Yes**
Rice Cyn to Couser Cyn	1	589	EB	950	0.62	C	1135	1724	1.81	**F**	1.19	**Yes**	540	WB	950	0.57	C	300	840	0.88	**E**	0.32	**Yes**
Couser Cyn to Pala Mission Rd	1	634	EB	950	0.67	C	223	857	0.90	**E**	0.23	**Yes**	357	WB	950	0.38	B	321	678	0.71	D	0.34	No

Source: SANDAG Year 2030 Cumulative Map. Notes: Dir = Direction. Vol = Volume. Cap = Capacity. v/c = volume to capacity ratio. LOS = Level of Service. E: Existing. C: Cumulative. P: Project.

State Route 76	Lanes in	E	PM (Eastbound)				C+P	E+C+P			v/c	Cumulative	E	PM (Westbound)				C+P	E+C+P			v/c	Cumulative
Study Limits	each dir	Vol	Dir	Cap	v/c	LOS	Vol	Vol	v/c	LOS	Delta	Impact?	Vol	Dir	Cap	v/c	LOS	Vol	Vol	v/c	Sig	Delta	Impact?
E. Vista Way to North River Rd	1	1107	EB	950	1.17	**F**	952	2059	2.17	**F**	1.00	**Yes**	652	WB	950	0.69	C	767	1419	1.49	**F**	0.81	**Yes**
North River Rd to Olive Hill Rd	1	1176	EB	950	1.24	**F**	1417	2593	2.73	**F**	1.49	**Yes**	781	WB	950	0.82	D	830	1611	1.70	**F**	0.87	**Yes**
Olive Hill Rd to S Mission Rd	1	1457	EB	950	1.53	**F**	1119	2576	2.71	**F**	1.18	**Yes**	1069	WB	950	1.13	**F**	782	1851	1.95	**F**	0.82	**Yes**
S Mission Rd to Via Monserate	1	1064	EB	950	1.12	**F**	1209	2273	2.39	**F**	1.27	**Yes**	618	WB	950	0.65	C	883	1501	1.58	**F**	0.93	**Yes**
Via Monserate to Gird Rd	1	1077	EB	950	1.13	**F**	1000	2077	2.19	**F**	1.05	**Yes**	786	WB	950	0.83	D	575	1361	1.43	**F**	0.61	**Yes**
Gird Rd to Sage Rd	1	645	EB	950	0.68	C	755	1400	1.47	**F**	0.79	**Yes**	742	WB	950	0.78	D	494	1236	1.30	**F**	0.52	**Yes**
Sage Rd to Old Hwy 395	1	638	EB	950	0.67	C	885	1523	1.60	**F**	0.93	**Yes**	768	WB	950	0.81	D	680	1448	1.52	**F**	0.72	**Yes**
Old Hwy 395 to I-15 SB Ramps	2	816	EB	2050	0.40	B	670	1486	0.72	D	0.33	No	1258	WB	2028	0.62	C	273	1531	0.75	D	0.13	No
I-15 SB Ramps to I-15 NB Ramps	1	718	EB	950	0.76	D	639	1357	1.43	**F**	0.67	**Yes**	1153	WB	950	1.21	**F**	132	1285	1.35	**F**	0.14	**Yes**
I-15 NB Ramps to Pankey Rd	2	696	EB	3100	0.22	A	753	1449	0.47	B	0.24	No	820	WB	3030	0.27	A	242	1062	0.35	B	0.08	No
Pankey Rd to Horse Ranch Creek Rd	2	631	EB	1806	0.35	B	649	1280	0.71	C	0.36	No	897	WB	2028	0.44	B	460	1357	0.67	C	0.23	No
Horse Ranch Creek Rd to Rice Cyn	1	631	EB	950	0.66	C	649	1280	1.35	**F**	0.68	**Yes**	897	WB	950	0.94	**E**	460	1357	1.43	**F**	0.48	**Yes**
Rice Cyn to Couser Cyn	1	526	EB	950	0.55	C	506	1032	1.09	**F**	0.53	**Yes**	930	WB	950	0.98	**E**	413	1343	1.41	**F**	0.43	**Yes**
Couser Cyn to Pala Mission Rd	1	434	EB	950	0.46	**B**	414	848	0.89	**E**	0.44	**Yes**	950	WB	950	1.00	**F**	301	1251	1.32	**F**	0.32	**Yes**

Source: SANDAG Year 2030 Cumulative Map. Notes: Dir = Direction. Vol = Volume. Cap = Capacity. v/c = volume to capacity ratio. LOS = Level of Service. E: Existing. C: Cumulative. P: Project.

TABLE 2.3-14
EXISTING + CUMULATIVE + PROJECT FREEWAY VOLUMES AND LOS

Freeway	**I-15**				**I-15**				**I-15**			
Segment	Rainbow Valley Blvd to Mission Rd				Mission Rd to SR-76 (Pala Rd)				SR-76 to Escondido Hwy (Old 395)			
Existing (Year 2006)												
ADT	136,000				127,000				120,000			
Peak Hour	A M		P M		A M		P M		A M		P M	
Direction	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
Number of Lanes	4	4	4	4	4	4	4	4	4	4	4	4
Capacity (1)	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400
K Factor (2)	0.0619	0.0619	0.0738	0.0738	0.0619	0.0619	0.0738	0.0738	0.0590	0.0590	0.0723	0.0723
D Factor (3)	0.1653	0.8347	0.6398	0.3602	0.1653	0.8347	0.6398	0.3602	0.1989	0.8011	0.6955	0.3045
Truck Factor (4)	0.9186	0.9186	0.9186	0.9186	0.9186	0.9186	0.9186	0.9186	0.8977	0.8977	0.8977	0.8977
Peak Hour Volume	1,515	7,650	6,991	3,936	1,415	7,143	6,528	3,675	1,569	6,318	6,722	2,943
Volume to Capacity	0.161	0.814	0.744	0.419	0.150	0.760	0.694	0.391	0.167	0.672	0.715	0.313
LOS	A	D	C	A	A	C	C	A	A	C	C	A
Project Pk Hr Vol	68	23	34	81	10	3	4	11	20	54	63	27
Existing + Project												
Peak Hour Volume	1,583	7,673	7,025	4,017	1,425	7,146	6,532	3,686	1,589	6,372	6,785	2,970
Volume to Capacity	0.168	0.816	0.747	0.427	0.152	0.760	0.695	0.392	0.169	0.678	0.722	0.316
LOS	A	D	C	B	A	C	C	A	A	C	C	A
Increase in V/C	0.007	0.002	0.004	0.009	0.001	0.000	0.000	0.001	0.002	0.006	0.007	0.003
County Impact?	No	No	No	No	No	No	No	No	No	No	No	No
CMP Impact?	No	No	No	No	No	No	No	No	No	No	No	No
Cumulative Pk Hr Vol	337	340	472	542	201	253	351	321	736	974	1340	906
Existing+Cumulative												
Peak Hour Volume	1,852	7,990	7,463	4,478	1,616	7,396	6,879	3,996	2,305	7,292	8,062	3,849
Volume to Capacity	0.197	0.850	0.794	0.476	0.172	0.787	0.732	0.425	0.245	0.776	0.858	0.409
LOS	A	D	C	B	A	C	C	B	A	C	D	A
Existing+Cumulative+Project												
Peak Hour Volume	1,920	8,013	7,497	4,559	1,626	7,399	6,883	4,007	2,325	7,346	8,125	3,876
Volume to Capacity	0.204	0.852	0.798	0.485	0.173	0.787	0.732	0.426	0.247	0.782	0.864	0.412
LOS	A	D	C	B	A	C	C	B	A	C	D	A
Increase in V/C	0.007	0.002	0.004	0.009	0.001	0.000	0.000	0.001	0.002	0.006	0.007	0.003
Cumulative Impact?	No	No	No	No	No	No	No	No	No	No	No	No

Notes: (1) Capacity of 2,350 passenger cars per hour per lane (pcphpl) from Caltrans' Guide for the Preparation of Traffic Impact Studies, Dec 2002. (2) Latest K factor from Caltrans (based on 2005 data), which is the percentage of Annual Average Daily Traffic (AADT) in both directions. (3) Latest D factor from Caltrans (based on 2005 data), which when multiplied by K and ADT will provide peak hour volume. (4) Latest truck factor from Caltrans (based on 2000 data). CMP: Congestion Management Program impact.

TABLE 2.3-15
HORIZON YEAR (2030) INTERSECTION LEVEL OF SERVICE

Intersection and (Analysis)[1]	Movement	Peak Hour	Horizon Year (2030) Delay[2]	LOS[3]
1) SR-76 (Pala Rd) at	SB R	AM	24.7	C
Via Monserate (U)	SB R	PM	19.4	C
2) SR-76 (Pala Rd) at	All	AM	12.4	B
Gird Rd (S)	All	PM	12.9	B
3) SR-76 (Pala Rd) at	SB R	AM	17.2	C
Sage Rd (U)	SB R	PM	17.7	C
4) SR-76 (Pala Rd) at	All	AM	47.8	D
Old Hwy 395 (S)	All	PM	44.8	D
6) SR-76 (Pala Rd) at	All	AM	33.7	C
I-15 SB Ramps (S)	All	PM	33.8	C
7) SR-76 (Pala Rd) at	All	AM	40.8	D
I-15 NB Ramps (S)	All	PM	40.7	D
8) SR-76 (Pala Rd) at	All	AM	25.2	C
Pankey Road (S)	All	PM	42.1	D
9) SR-76 (Pala Rd) at	All	AM	20.0	B
Horse Ranch Creek Rd (S)	All	PM	19.7	B
12) Old Highway 395 at	All	AM	32.5	C
Pala Mesa Dr (S)	All	PM	46.6	D
14) Old Highway 395 at	All	AM	22.3	C
Stewart Canyon Road (S)	All	PM	30.1	C
15) Old Highway 395 at	All	AM	22.8	C
Reche Road (S)	All	PM	48.2	D
19) Mission Road at	All	AM	23.6	C
Old Highway 395 (S)	All	PM	33.2	C
20) Mission Road at	All	AM	35.7	D
I-15 SB Ramps (S)	All	PM	21.6	C
21) Mission Road at	All	AM	22.0	C
I-15 NB Ramps (S)	All	PM	29.7	C
22) Stewart Canyon Rd at	EB LR	AM	11.2	B
HRCR/Pankey Road (U)	EB LR	PM	13.0	B
23) Horse Ranch Crk Rd at	All	AM	17.3	B
Baltimore Oriole (S)	All	PM	19.0	B
24) Horse Ranch Crk Rd at	All	AM	23.0	C
Longspur Rd (S)	All	PM	24.0	C
25) Horse Ranch Crk Rd at	All	AM	19.9	B
Harvest Glen Ln (S)	All	PM	22.5	C
26) Horse Ranch Crk Rd at	All	AM	13.1	B
Pardee South Loop (S)	All	PM	13.6	B
27) Horse Ranch Crk Rd at	WB R	AM	14.8	B
School/Park Access (U)	WB R	PM	15.6	C
28) Horse Ranch Crk Rd	All	AM	11.4	B
at Street R (S)	All	PM	12.8	B
29) Pankey/Pala Mesa Dr	All	AM	26.4	C
at Street R (S)	All	PM	41.2	D

Notes: 1) Intersection Analysis - (S) Signalized, (U) Unsignalized 2) Delay - HCM Control Delay in seconds. 3) LOS: Level of Service.

TABLE 2.3-16A
HORIZON YEAR (2030) SEGMENT ADT VOLUMES AND LOS

Segment	Existing Classification (proposed)	Horizon Year (2030) Daily Volume	LOS E Capacity	V/C	LOS
Old Highway 395					
East Mission Road to Reche Road	Collector	20,764	34,200	0.61	B
Reche Road to Stewart Canyon Road	Collector	23,761	34,200	0.69	C
Pala Mesa Drive to SR-76 (Pala Road)	Collector	21,224	34,200	0.62	B
Stewart Canyon Road					
Old Hwy 395 to Horse Ranch Creek Rd	Collector	7,285	34,200	0.21	A
Pankey Road					
Street R/Pankey Place to SR-76 (Pala Rd)	Light Collector	8,521	34,200	0.25	A
Horse Ranch Creek Road					
Stewart Canyon Rd to Baltimore Oriole (#23)	Light Collector	6,385	16,200	0.39	C
Baltimore Oriole (#23) to Longspur Rd (#24)	(Boulevard 4.2A)	9,333	27,000	0.35	Un
Longspur Rd (#24) to Harvest Glen Ln (#25)	(Boulevard 4.2A)	13,223	27,000	0.49	Un
Harvest Glen Ln (#25) to Intersection (#26)	(Boulevard 4.2A)	16,760	27,000	0.62	Un
Intersection (#26) to Park/School (#27)	(Boulevard 4.2A)	17,654	27,000	0.65	Un
Park/Sch (#27) to Street R/Pankey Pl (#28)	(Boulevard 4.2A)	17,854	27,000	0.66	Un
Street R/Pankey Pl (#28) to SR-76 (Pala Rd)	(Boulevard 4.2A)	11,025	27,000	0.41	Un
Pala Mesa Drive					
Old Highway 395 to Street R/Pankey Pl	Light Collector	6,667	16,200	0.41	C
Street R/Pankey Place					
Pala Mesa/Pankey to Horse Ranch Creek Rd	Light Collector	8,331	16,200	0.51	D

Notes: Existing Classification Sept 2005 Circulation Element. Proposed classification = GP Update Circulation Element.
Un = Under Capacity. Daily volume is a 24 hour volume. LOS: Level of Service. V/C: Volume to Capacity ratio.

TABLE 2.3-16B
HORIZON YEAR (2030) STATE ROUTE VOLUMES AND LOS
(LIMITS BASED ON 50 PEAK HOUR TRIPS)

State Route 76	Lanes in	2030	AM (Eastbound)				2030	AM (Westbound)				2030	PM (Eastbound)				2030	PM (Westbound)			
Study Limits	each dir	Vol	Dir	Cap	v/c	LOS	Vol	Dir	Cap	v/c	LOS	Vol	Dir	Cap	v/c	LOS	Vol	Dir	Cap	v/c	LOS
Via Monserate to Gird Rd	2	1124	EB	3300	0.34	B	1768	WB	3162	0.56	C	2022	EB	2912	0.69	C	1337	WB	3300	0.41	B
Gird Rd to Sage Rd	2	1115	EB	3300	0.34	B	1613	WB	2912	0.55	C	1623	EB	3300	0.49	B	1212	WB	2912	0.42	B
Sage Rd to Old Hwy 395	2	1202	EB	1904	0.63	C	1603	WB	3300	0.49	B	1620	EB	1904	0.85	D	1424	WB	3300	0.43	B
Old Hwy 395 to I-15 SB Ramps	2	1339	EB	3030	0.44	B	1251	WB	2028	0.62	C	1470	EB	3030	0.49	B	1524	WB	2028	0.75	D
I-15 SB Ramps to I-15 NB Ramps	2	1000	EB	3030	0.33	B	844	WB	3030	0.28	A	1278	EB	3030	0.42	B	1210	WB	3030	0.40	B
I-15 NB Ramps to Pankey Rd	2	775	EB	3100	0.25	A	841	WB	3030	0.28	A	1211	EB	3100	0.39	B	960	WB	3030	0.32	B
Pankey Rd to Horse Ranch Creek Rd	2	702	EB	1806	0.39	B	1000	WB	1956	0.51	C	1066	EB	1806	0.59	C	1265	WB	2028	0.62	C

Source: SANDAG, higher volumes used btw Series 10 (2030) Cumulative Map and Series 11 (2030) coverage. Notes: Dir = Direction. Vol = Volume. Cap = Capacity.
Study limits based on where 50 peak hour trips will travel, which does not extend west of Via Monserate as shown in Figure 12b (intersection #1).

TABLE 2.3-17
HORIZON YEAR (2030) FREEWAY VOLUMES AND LOS

Freeway Segment	**I-15**				**I-15**				**I-15**			
	Rainbow Valley Blvd to Mission Rd				Mission Rd to SR-76 (Pala Rd)				SR-76 to Escondido Hwy (Old 395)			
SANDAG (Horizon Year)												
ADT	275,000				251,000				231,000			
Peak Hour	A M		P M		A M		P M		A M		P M	
Direction	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
Number of Lanes	4	4	4	4	4	4	4	4	4	4	4	4
Capacity (1)	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400
K Factor (2)	0.0619	0.0619	0.0738	0.0738	0.0619	0.0619	0.0738	0.0738	0.0590	0.0590	0.0723	0.0723
D Factor (3)	0.5064	0.4936	0.5064	0.4936	0.5075	0.4925	0.5075	0.4925	0.4917	0.5083	0.4917	0.5083
Truck Factor (4)	0.9186	0.9186	0.9186	0.9186	0.9186	0.9186	0.9186	0.9186	0.8977	0.8977	0.8977	0.8977
Peak Hour Volume	9,384	9,147	11,188	10,905	8,584	8,330	10,234	9,931	7,465	7,717	9,148	9,457
Volume to Capacity	1.00	0.97	1.19	1.16	0.91	0.89	1.09	1.06	0.79	0.82	0.97	1.01
LOS	**F**	**E**	**F**	**F**	D	D	**F**	**F**	C	D	**E**	**F**

Notes: (1) Capacity of 2,350 passenger cars per hour per lane from Caltrans' Guide for the Preparation of Traffic Impact Studies, Dec 2002. (2) Latest K factor from Caltrans (based on 2005 data), which is the percentage of Annual Average Daily Traffic (AADT) in both directions. (3) D factor from SANDAG Series 11 split for year 2030, which when multiplied by K and ADT will provide peak hour volume. (4) Latest truck factor from Caltrans (based on 2000 data).

TABLE 2.3-18
HORIZON YEAR (2030) + PROJECT INTERSECTION LOS

Intersection & (Analysis)[1]	Move-ment	Peak Hour	Horizon Year (2030) Delay[2]	Horizon Year (2030) LOS[3]	Horizon Year (2030) + Project Delay[2]	Horizon Year (2030) + Project LOS[3]	Horizon Year (2030) + Project Delta[4]	Horizon Year (2030) + Project CM Vol[5]	County Sig[6]	CMP Sig[7]
1) SR-76 (Pala Rd) at	SB R	AM	24.7	C	25.3	D	0.6	0	No	No
Via Monserate (U)	SB R	PM	19.4	C	19.7	C	0.3	0	No	No
2) SR-76 (Pala Rd) at	All	AM	12.4	B	12.5	B	0.1	NA	No	No
Gird Rd (S)	All	PM	12.9	B	13.0	B	0.1	NA	No	No
3) SR-76 (Pala Rd) at	SB R	AM	17.2	C	17.6	C	0.4	0	No	No
Sage Rd (U)	SB R	PM	17.7	C	17.9	C	0.2	0	No	No
4) SR-76 (Pala Rd) at	All	AM	47.8	D	51.0	D	3.2	NA	No	No
Old Hwy 395 (S)	All	PM	44.8	D	47.8	D	3.0	NA	No	No
6) SR-76 (Pala Rd) at	All	AM	33.7	C	34.0	C	0.3	NA	No	No
I-15 SB Ramps (S)	All	PM	33.8	C	34.1	C	0.3	NA	No	No
7) SR-76 (Pala Rd) at	All	AM	40.8	D	41.1	D	0.3	NA	No	No
I-15 NB Ramps (S)	All	PM	40.7	D	41.3	D	0.6	NA	No	No
8) SR-76 (Pala Rd) at	All	AM	25.2	C	27.8	C	2.6	NA	No	No
Pankey Road (S)	All	PM	42.1	D	45.4	D	3.3	NA	No	No
9) SR-76 (Pala Rd) at	All	AM	20.0	B	21.8	C	1.8	NA	No	No
Horse Ranch Creek Rd (S)	All	PM	19.7	B	22.9	C	3.2	NA	No	No
12) Old Highway 395 at	All	AM	32.5	C	34.3	C	1.8	NA	No	No
Pala Mesa Dr (S)	All	PM	46.6	D	51.5	D	4.9	NA	No	No
14) Old Highway 395 at	All	AM	22.3	C	22.8	C	0.5	NA	No	No
Stewart Canyon Road (S)	All	PM	30.1	C	40.4	D	10.3	NA	No	No
15) Old Highway 395 at	All	AM	22.8	C	23.3	C	0.5	NA	No	No
Reche Road (S)	All	PM	48.2	D	50.9	D	2.7	NA	No	No
19) Mission Road at	All	AM	23.6	C	27.4	C	3.8	NA	No	No
Old Highway 395 (S)	All	PM	33.2	C	37.8	D	4.6	NA	No	No
20) Mission Road at	All	AM	35.7	D	37.6	D	1.9	NA	No	No
I-15 SB Ramps (S)	All	PM	21.6	C	27.7	C	6.1	NA	No	No
21) Mission Road at	All	AM	22.0	C	23.1	C	1.1	NA	No	No
I-15 NB Ramps (S)	All	PM	29.7	C	31.0	C	1.3	NA	No	No
22) Stewart Canyon Rd at	EB LR	AM	11.2	B	12.2	B	1.0	43	No	No
HRCR/Pankey Road (U)	EB LR	PM	13.0	B	15.5	C	2.5	151	No	No
23) Horse Ranch Crk Rd at	All	AM	17.3	B	17.5	B	0.2	NA	No	No
Baltimore Oriole (S)	All	PM	19.0	B	19.6	B	0.6	NA	No	No
24) Horse Ranch Crk Rd at	All	AM	23.0	C	23.6	C	0.6	NA	No	No
Longspur Rd (S)	All	PM	24.0	C	24.9	C	0.9	NA	No	No
25) Horse Ranch Crk Rd at	All	AM	19.9	B	22.2	C	2.3	NA	No	No
Harvest Glen Ln (S)	All	PM	22.5	C	30.2	C	7.7	NA	No	No
26) Horse Ranch Crk Rd at	All	AM	13.1	B	18.9	B	5.8	NA	No	No
Pardee South Loop (S)	All	PM	13.6	B	27.3	C	13.7	NA	No	No
27) Horse Ranch Crk Rd at	WB R	AM	14.8	B	15.6	C	0.8	144	No	No
School/Park Access (U)	WB R	PM	15.6	C	18.7	C	3.1	62	No	No
28) Horse Ranch Crk Rd	All	AM	11.4	B	11.8	B	0.4	NA	No	No
at Street R (S)	All	PM	12.8	B	15.7	B	2.9	NA	No	No
29) Pankey/Pala Mesa Dr	All	AM	26.4	C	27.0	C	0.6	NA	No	No
at Street R (S)	All	PM	41.2	D	48.0	D	6.8	NA	No	No

Notes: 1) Intersection Analysis - (S) Signalized, (U) Unsignalized 2) Delay - HCM Control Delay in seconds. 3) LOS: Level of Service. 4) Delta is the increase in delay from project. 5) CM Vol: Critical Movement Volume used to show project volumes on the critical movement. 6) County Sig: is the project have a calculated impact based on the critical volume (Yes or No). 7) CMP Sig: Congention Mangement Program significant impact based on CMP criteria (Yes or No). DNE: Does Not Exist. NA: Not Applicable.

TABLE 2.3-19A
HORIZON YEAR (2030) + PROJECT SEGMENT ADT VOLUMES AND LOS

Segment	Existing Classification (proposed)	Horizon Year (2030) Daily Volume	LOS E Capacity	V/C	LOS	Project Daily Volumes	Horizon Year (2030) + Project Daily Volume	LOS E Capacity	V/C	LOS	Impact?	Change in V/C	CMP Impact?
Old Highway 395													
East Mission Road to Reche Road	Collector	20,764	34,200	0.61	B	1,136	21,900	34,200	0.64	B	No	0.03	No
Reche Road to Stewart Canyon Road	Collector	23,761	34,200	0.69	C	1,439	25,200	34,200	0.74	C	No	0.04	No
Pala Mesa Drive to SR-76 (Pala Road)	Collector	21,224	34,200	0.62	B	76	21,300	34,200	0.62	B	No	0.00	No
Stewart Canyon Road													
Old Hwy 395 to Horse Ranch Creek Rd	Collector	7,285	34,200	0.21	A	1,515	8,800	34,200	0.26	A	No	0.04	No
Pankey Road													
Street R/Pankey Place to SR-76 (Pala Rd)	Light Collector	8,521	34,200	0.25	A	379	8,900	34,200	0.26	A	No	0.01	No
Horse Ranch Creek Road													
Stewart Canyon Rd to Baltimore Oriole (#23)	Light Collector	6,385	16,200	0.39	C	1,515	7,900	16,200	0.49	D	No	0.09	No
Baltimore Oriole (#23) to Longspur Rd (#24)	(Boulevard 4.2A)	9,333	27,000	0.35	Un	2,068	11,400	27,000	0.42	Un	No	0.08	No
Longspur Rd (#24) to Harvest Glen Ln (#25)	(Boulevard 4.2A)	13,223	27,000	0.49	Un	2,777	16,000	27,000	0.59	Un	No	0.10	No
Harvest Glen Ln (#25) to Intersection (#26)	(Boulevard 4.2A)	16,760	27,000	0.62	Un	4,040	20,800	27,000	0.77	Un	No	0.15	No
Intersection (#26) to Park/School (#27)	(Boulevard 4.2A)	17,654	27,000	0.65	Un	4,946	22,600	27,000	0.84	Un	No	0.18	No
Park/Sch (#27) to Street R/Pankey Pl (#28)	(Boulevard 4.2A)	17,854	27,000	0.66	Un	4,946	22,800	27,000	0.84	Un	No	0.18	No
Street R/Pankey Pl (#28) to SR-76 (Pala Rd)	(Boulevard 4.2A)	11,025	27,000	0.41	Un	2,575	13,600	27,000	0.50	Un	No	0.10	No
Pala Mesa Drive													
Old Highway 395 to Street R/Pankey Pl	Light Collector	6,667	16,200	0.41	C	151	7,500	16,200	0.46	D	No	0.05	No
Street R/Pankey Place													
Pala Mesa/Pankey to Horse Ranch Creek Rd	Light Collector	8,331	16,200	0.51	D	1,969	10,300	16,200	0.64	D	No	0.12	No

Notes: (proposed GP Update classification). LOS: Level of Service. V/C: Volume to Capacity ratio. Daily volumes is a 24 hour volume.
Horse Ranch Creek Road LOS for proposed classification per GP Update is noted as "Un" as under capacity and "Ov" for over capacity.

TABLE 2.3-19B
HORIZON YEAR (2030) + PROJECT STATE ROUTE VOLUMES AND LOS (AM/PM)

State Route 76 Study Limits	Lanes in each dir	2030 Vol	AM (Eastbound) Dir	Cap	v/c	LOS	P Vol	2030+P Vol	v/c	LOS	v/c Delta	Impact?	2030 Vol	AM (Westbound) Dir	Cap	v/c	LOS	P Vol	2030+P Vol	v/c	LOS	v/c Delta	Impact?
Via Monserate to Gird Rd	2	1124	EB	3300	0.34	B	16	1140	0.35	B	0.00	No	1768	WB	3162	0.56	C	48	1816	0.57	C	0.02	No
Gird Rd to Sage Rd	2	1115	EB	3300	0.34	B	16	1131	0.34	B	0.00	No	1613	WB	3300	0.49	B	48	1661	0.50	B	0.01	No
Sage Rd to Old Hwy 395	2	1202	EB	1904	0.63	C	16	1218	0.64	C	0.01	No	1603	WB	3300	0.49	B	48	1651	0.50	B	0.01	No
Old Hwy 395 to I-15 SB Ramps	2	1339	EB	3030	0.44	B	4	1343	0.44	B	0.00	No	1251	WB	2028	0.62	C	14	1265	0.62	C	0.01	No
I-15 SB Ramps to I-15 NB Ramps	2	1000	EB	3030	0.33	B	22	1022	0.34	B	0.01	No	844	WB	3030	0.28	A	150	994	0.33	B	0.05	No
I-15 NB Ramps to Pankey Rd	2	775	EB	3100	0.25	A	67	842	0.27	A	0.02	No	841	WB	3030	0.28	A	204	1045	0.34	B	0.07	No
Pankey Rd to Horse Ranch Creek Rd	2	702	EB	1806	0.39	B	60	762	0.42	B	0.03	No	1000	WB	1956	0.51	C	184	1184	0.61	C	0.09	No

Source: SANDAG, higher volumes used btw Series 10 (2030) Cumulative Map and Series 11 (2030) coverage. Notes: Dir = Direction. Vol = Volume. Cap = Capacity.

State Route 76 Study Limits	Lanes in each dir	2030 Vol	PM (Eastbound) Dir	Cap	v/c	LOS	P Vol	2030+P Vol	v/c	LOS	v/c Delta	Impact?	2030 Vol	PM (Westbound) Dir	Cap	v/c	LOS	P Vol	2030+P Vol	v/c	LOS	v/c Delta	Impact?
Via Monserate to Gird Rd	2	2022	EB	2912	0.69	C	55	2077	0.71	D	0.02	No	1337	WB	3300	0.41	B	24	1361	0.41	B	0.01	No
Gird Rd to Sage Rd	2	1623	EB	3300	0.49	B	55	1678	0.51	B	0.02	No	1212	WB	2912	0.42	B	24	1236	0.42	B	0.01	No
Sage Rd to Old Hwy 395	2	1620	EB	2300	0.70	C	55	1675	0.73	D	0.02	No	1424	WB	3300	0.43	B	24	1448	0.44	B	0.01	No
Old Hwy 395 to I-15 SB Ramps	2	1470	EB	3030	0.49	B	16	1486	0.49	B	0.01	No	1524	WB	2028	0.75	D	7	1531	0.75	D	0.00	No
I-15 SB Ramps to I-15 NB Ramps	2	1278	EB	3030	0.42	B	79	1357	0.45	B	0.03	No	1210	WB	3030	0.40	B	75	1285	0.42	B	0.02	No
I-15 NB Ramps to Pankey Rd	2	1211	EB	3100	0.39	B	238	1449	0.47	B	0.08	No	960	WB	3030	0.32	B	102	1062	0.35	B	0.03	No
Pankey Rd to Horse Ranch Creek Rd	2	1066	EB	1806	0.59	C	214	1280	0.71	C	0.12	No	1265	WB	2028	0.62	C	92	1357	0.67	C	0.05	No

Source: SANDAG, higher volumes used btw Series 10 (2030) Cumulative Map and Series 11 (2030) coverage. Notes: Dir = Direction. Vol = Volume. Cap = Capacity.

TABLE 2.3-20
HORIZON YEAR (2030) + PROJECT FREEWAY VOLUMES AND LOS

Freeway Segment	**I-15**				**I-15**				**I-15**			
	Rainbow Valley Blvd to Mission Rd				Mission Rd to SR-76 (Pala Rd)				SR-76 to Escondido Hwy (Old 395)			
SANDAG (Horizon Year)												
ADT	275,000				251,000				231,000			
Peak Hour	A M		P M		A M		P M		A M		P M	
Direction	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
Number of Lanes	4	4	4	4	4	4	4	4	4	4	4	4
Capacity (1)	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,400
K Factor (2)	0.0619	0.0619	0.0738	0.0738	0.0619	0.0619	0.0738	0.0738	0.0590	0.0590	0.0723	0.0723
D Factor (3)	0.5064	0.4936	0.5064	0.4936	0.5075	0.4925	0.5075	0.4925	0.4917	0.5083	0.4917	0.5083
Truck Factor (4)	0.9186	0.9186	0.9186	0.9186	0.9186	0.9186	0.9186	0.9186	0.8977	0.8977	0.8977	0.8977
Peak Hour Volume	9,384	9,147	11,188	10,905	8,584	8,330	10,234	9,931	7,465	7,717	9,148	9,457
Volume to Capacity	1.00	0.97	1.19	1.16	0.91	0.89	1.09	1.06	0.79	0.82	0.97	1.01
LOS	**F**	**E**	**F**	**F**	D	D	**F**	**F**	C	D	**E**	**F**
Project Pk Hr Vol	68	23	34	136	10	3	4	11	20	54	63	27
SANDAG (Horizon Year + Project)												
Peak Hour Volume	9,452	9,170	11,222	11,041	8,594	8,333	10,238	9,942	7,485	7,771	9,211	9,484
Volume to Capacity	1.01	0.98	1.19	1.17	0.91	0.89	1.09	1.06	0.80	0.83	0.97	1.01
LOS	**F**	**E**	**F**	**F**	D	D	**F**	**F**	C	D	**E**	**F**
Increase in V/C	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00
County Impact?	No	No	No	No	No	No	No	No	No	No	No	No
CMP Impact?	No	No	No	No	No	No	No	No	No	No	No	No

Notes: (1) Capacity of 2,350 passenger cars per hour per lane from Caltrans' Guide for the Preparation of Traffic Impact Studies, Dec 2002. (2) Latest K factor from Caltrans (based on 2005 data), which is the percentage of Annual Average Daily Traffic (AADT) in both directions. (3) D factor from SANDAG Series 11 split for year 2030, which when multiplied by K and ADT will provide peak hour volume. (4) Latest truck factor from Caltrans (based on 2000 data). CMP: Congestion Management Program.

TABLE 2.3-21
IMPACT SUMMARY TABLE

Facility	Direct Impacts	Cumulative Impacts
Intersections	1) Old Hwy 395/Reche Road	1) SR-76/Via Monserate 2) SR-76/Gird Road 3) SR-76/Sage Road 4) SR-76/Old Hwy 395 5) SR-76/I-15 SB Ramp 6) SR-76/I-15 NB Ramp 7) SR-76/Pankey Road 8) SR-76/Rice Canyon Road 9) SR-76/Couser Canyon Road 10) Old Hwy 395/Pala Mesa Dr 11) Old Hwy 395/Stewart Canyon Road 12) Old Hwy 395/Reche Road 13) Mission Road at Old Hwy 395 14) Mission Road at I-15 SB Ramp 15) Mission Road at I-15 NB Ramp 16) SR-76/E Vista Way 17) SR-76/North River Road 18) SR-76/Olive Hill Road 19) SR-76/S Mission Road
Segments and State Routes	1) SR-76 (Via Monserate to Gird Road) 2) SR-76 (I-15 NB Ramp to I-15 SB Ramp)	1) Old Hwy 395 (E Mission Road to Reche Road) 2) Old Hwy 395 (Reche Road to Stewart Cyn) 3) Old Hwy 395 (Pala Mesa Dr to SR-76) 4) SR-76 (E Vista Way to North River Road) 5) SR-76 (North River Road to Olive Hill Road) 6) SR-76 (Olive Hill Road to S Mission Road) 7) SR-76 (S Mission Road to Via Monserate) 8) SR-76 (Via Monserate to Gird Road) 9) SR-76 (Gird Road to Sage Road) 10) SR-76 (Sage Road to Old Hwy 395) 11) SR-76 (I-15 SB Ramp to I-15 NB Ramp) 12) SR-76 (Horse Ranch Creek Road to Rice Cyn) 13) SR-76 (Rice Cyn to Couser Cyn Road) 14) SR-76 (Couser Cyn Road to Pala Mission Road)
Freeways	None	None
Ramps	None	None
Horse Ranch Creek Road Classification Change	Copy of a Modification to Road Standard Request is included in the Appendix	Copy of a Modification to Road Standard Request is included in the Appendix

TABLE 2.3-22
SUMMARY OF DIRECT AND CUMULATIVE IMPACTS, PROJECT FEATURES, AND OTHER IMPROVEMENTS

Impact, Project Feature, or Other Improvement	Proposed Mitigation	Responsible Party	Significance After Mitigation
Direct Impacts			
1) INTERSECTION: Old Highway 395 at Reche Road (#15)	Construct traffic signal with lane configuration as shown in TIS Figure 28	First applicant in time to construct the identified improvement	Direct impact mitigated to below a level of significance
2) STATE ROUTE: 76 (Via Monserate to Gird Road)	Widen SR-76 from 2 to 4 lanes.	Caltrans SR-76 East Project	Direct impact mitigated to below a level of significance with Caltrans project(1)
3) STATE ROUTE: 76 (I-15 NB Ramp to I-15 SB Ramp)	Widen SR-76 from 2 to 4 lanes.	Caltrans SR-76 East Project	Direct impact mitigated to below a level of significance with Caltrans project(1)
Cumulative Impacts			
1) INTERSECTION: SR-76 at Via Monserate	Add lanes as shown in the TIS Figure 27	TIF(2)	Cumulative impact mitigated to below a level of significance
2) INTERSECTION: SR-76 at Gird Road	Add lanes as shown in the TIS Figure 27	TIF(2)	Cumulative impact mitigated to below a level of significance
3) INTERSECTION: SR-76 at Sage Road	Add lanes as shown in the TIS Figure 27	TIF(2)	Cumulative impact mitigated to below a level of significance
4) INTERSECTION: SR-76 at Old Hwy 395	Add lanes as shown in the TIS Figure 27	TIF(2)	Cumulative impact mitigated to below a level of significance
5) INTERSECTION: SR-76 at I-15 SB Ramp	Add lanes as shown in the TIS Figure 27	TIF(2)	Cumulative impact mitigated to below a level of significance
6) INTERSECTION: SR-76 at I-15 NB Ramp	Add lanes as shown in the TIS Figure 27	TIF(2)	Cumulative impact mitigated to below a level of significance
7) INTERSECTION: SR-76 at Pankey Road	Install traffic signal and add lanes as shown in TIS Figure 27	TIF(2)	Cumulative impact mitigated to below a level of significance
8) INTERSECTION: SR-76 at Rice Canyon Road	Install traffic signal and add lanes as shown in TIS Figure 27	TIF(2)	Cumulative impact mitigated to below a level of significance
9) INTERSECTION: SR-76 at Couser Canyon Road	Install traffic signal and add lanes as shown in TIS Figure 27	TIF(2)	Cumulative impact mitigated to below a level of significance
10) INTERSECTION: Old Highway 395 at Pala Mesa Drive	Install traffic signal and add lanes as shown in TIS Figure 27	TIF(2)	Cumulative impact mitigated to below a level of significance
11) INTERSECTION: Old Highway 395 at Stewart Canyon Road	Install traffic signal and add lanes as shown in TIS Figure 27	TIF(2)	Cumulative impact mitigated to below a level of significance
12) INTERSECTION: Old Highway 395 at Reche Road	Install traffic signal and add lanes as shown in TIS Figure 27	TIF(2)	Cumulative impact mitigated to below a level of significance

TABLE 2.3-22
SUMMARY OF DIRECT AND CUMULATIVE IMPACTS, PROJECT FEATURES, AND OTHER IMPROVEMENTS
(CONTINUED)

Impact, Project Feature, or Other Improvement	Proposed Mitigation	Responsible Party	Significance After Mitigation
13) INTERSECTION: Old Highway 395 at E Mission Road	Add lanes as shown in TIS Figure 27	TIF(2)	Cumulative impact mitigated to below a level of significance
14) INTERSECTION: Mission Road at I-15 SB Ramp	Add lanes as shown in TIS Figure 27	TIF(2)	Cumulative impact mitigated to below a level of significance
15) INTERSECTION: Mission Road at I-15 NB Ramp	Add lanes as shown in TIS Figure 27	TIF(2)	Cumulative impact mitigated to below a level of significance
16) INTERSECTION: SR-76 at E. Vista Way	Add lanes as shown in TIS Figure 27	TIF(2)	Cumulative impact mitigated to below a level of significance
17) INTERSECTION: SR-76 at North River Road	Add lanes as shown in TIS Figure 27	TIF(2)	Cumulative impact mitigated to below a level of significance
18) INTERSECTION: SR-76 at Olive Hill Road	Add lanes as shown in TIS Figure 27	TIF(2)	Cumulative impact mitigated to below a level of significance
19) INTERSECTION: SR-76 at S. Mission Road	Add lanes as shown in TIS Figure 27	TIF(2)	Cumulative impact mitigated to below a level of significance
Cumulative Impacts Continued (Segments)			
1) SEGMENT: Old Highway 395 (E Mission Road to Reche Road)	Widen Roadway to Collector (2 additional lanes)	TIF(2)	Cumulative impact mitigated to below a level of significance
2) SEGMENT: Old Highway 395 (Reche Road to Stewart Canyon Road)	Widen Roadway to a Collector (2 additional lanes)	TIF(2)	Cumulative impact mitigated to below a level of significance
3) SEGMENT: Old Highway 395 (E Mission Road to Reche Road)	Widen Roadway to Collector (2 additional lanes)	TIF(2)	Cumulative impact mitigated to below a level of significance
Cumulative Impacts Continued (State Routes)			
1) STATE ROUTE: 76 (E Vista Way to North River Road)	Widen SR-76 from 2 to 6 lanes.	TIF(2)	Cumulative impact mitigated to below a level of significance
2) STATE ROUTE: 76 (North River Road to Olive Hill Road)	Widen SR-76 from 2 to 6 lanes.	TIF(2)	Cumulative impact mitigated to below a level of significance
3) STATE ROUTE: 76 (Olive Hill Road to S Mission Road)	Widen SR-76 from 2 to 6 lanes.	TIF(2)	Cumulative impact mitigated to below a level of significance
4) STATE ROUTE: 76 (S Mission Road to Via Monserate)	Widen SR-76 from 2 to 4 lanes.	TIF(2)	Cumulative impact mitigated to below a level of significance

TABLE 2.3-22
SUMMARY OF DIRECT AND CUMULATIVE IMPACTS, PROJECT FEATURES, AND OTHER IMPROVEMENTS
(CONTINUED)

Impact, Project Feature, or Other Improvement	Proposed Mitigation	Responsible Party	Significance After Mitigation
5) STATE ROUTE: 76 (Via Monserate to Gird Road)	Widen SR-76 from 2 to 4 lanes.	TIF(2)	Cumulative impact mitigated to below a level of significance
6) STATE ROUTE: 76 (Gird Road to Sage Road)	Widen SR-76 from 2 to 4 lanes.	TIF(2)	Cumulative impact mitigated to below a level of significance
7) STATE ROUTE: 76 (Sage Road to Old Highway 395)	Widen SR-76 from 2 to 4 lanes.	TIF(2)	Cumulative impact mitigated to below a level of significance
8) STATE ROUTE: 76 (I-15 SB Ramp to I-15 NB Ramp)	Widen SR-76 from 2 to 4 lanes.	TIF(2)	Cumulative impact mitigated to below a level of significance
9) STATE ROUTE: 76 (Horse Ranch Creek Road to Rice Canyon Road)	Widen SR-76 from 2 to 4 lanes.	TIF(2)	Cumulative impact mitigated to below a level of significance
10) STATE ROUTE: 76 (Rice Canyon Road to Couser Canyon Road)	Widen SR-76 from 2 to 4 lanes.	TIF(2)	Cumulative impact mitigated to below a level of significance
11) STATE ROUTE: 76 (Couser Canyon Road to Pala Mission Road)	Widen SR-76 from 2 to 4 lanes.	TIF(3)	Cumulative impact mitigated to below a level of significance
Project Features			
1) INTERSECTION: SR-76 at Horse Ranch Creek Road	Construct traffic signal with lane configuration as shown in TIS Figure 17B	First applicant to proceed between Meadowood, Palomar College, and Campus Park (4)	LOS C or better with proposed project feature
2) INTERSECTIONS: Six internal intersections (#23, 24, 25, 26, 27, 28 and 29) along Horse Ranch Creek Road and Street R	Construct traffic signals with lane configuration as shown in TIS Figure 17B	First applicant to proceed between Meadowood, Palomar College, and Campus Park	LOS C or better with proposed project feature
3) SEGMENT: Horse Ranch Creek Road from SR-76 to southern terminus of Pankey Road south of Stewart Canyon Road	Construct 2 lane roadway	First applicant to proceed between Meadowood, Palomar College, and Campus Park	LOS C or better with proposed project feature
4) SEGMENT: Street R from Pala Mesa Drive to Horse Ranch Creek Road	Construct 2 lane roadway	First applicant to proceed between Meadowood, Palomar College, and Campus Park	LOS C or better with proposed project feature
5) SEGMENT: Pala Mesa Drive from Old Highway 395 to Street R	Construct 2 lane roadway	First applicant to proceed between Meadowood, Palomar College, and Campus Park	LOS C or better with proposed project feature
6) SEGMENT: Pala Mesa Drive from Street R to SR-76	Construct 2 lane roadway	First applicant to proceed between Meadowood, Palomar College, and Campus Park	LOS C or better with proposed project feature

TABLE 2.3-22
SUMMARY OF DIRECT AND CUMULATIVE IMPACTS, PROJECT FEATURES, AND OTHER IMPROVEMENTS
(CONTINUED)

Impact, Project Feature, or Other Improvement	Proposed Mitigation	Responsible Party	Significance After Mitigation
Improvements by others			
1) STATE ROUTE: 76 from I-15 NB Ramp easterly a distance of approximately 1.4 miles	Widen from 2 to 4 lanes	Under Construction by Granite Construction Company	Acceptable LOS with this improvement through Horizon Year (2030)

Notes: (1) If the Caltrans SR-76 Middle project or SR-76 East project is completed prior to occupancy of the first residential unit within Meadowood, the direct Meadowood project impacts to the completed Caltrans project would be fully mitigated. If the first residential unit within Meadowood is occupied prior to completion of the Caltrans SR-76 Middle project or SR-76 East project, the applicant would be responsible for making its fair share contribution toward the uncompleted Caltrans project to mitigate the Meadowood direct project impact(s). Overrides would also have to be made for Meadowood to proceed prior to completion of the SR-76 Middle project or SR-76 East project. (2) The TIF program provides a comprehensive facility financing fee program that addresses existing and forecasted deficiencies to SR-76 and other public street facilities. Applicant's contribution to the TIF will fully mitigate the Meadowood project cumulative impacts to SR-76 and other public street facilities. (3) For cumulative segment impacts to SR-76, east of Couser Canyon Road: The TIF Program mitigates for cumulative impacts on SR-76, west of Couser Canyon Road. Improvements to that segment, paid for by the TIF Program, will increase the operational efficiency of SR-76, west of Couser Canyon Road, and these improvements will provide improved operational characteristics on SR-76, east of Couser Canyon Road. (4) If applicant's development precedes both of the other planned cumulative projects (i.e., Palomar Community College District and Campus Park), then the applicant will design and install a traffic signal for the existing single eastbound left turn lane at Horse Ranch Creek Road and SR-76 construct the intersection and traffic signal. If applicant's development is the first development to follow development of Palomar Community College District or Campus Park succeeds (i.e. the other planned cumulative projects) (i.e. Palomar College, Campus Park), then the applicant will construct a second left turn lane from eastbound SR-76 to northbound Horse Ranch Creek Road creating dual left turn lanes and make modifications to the traffic signal to accommodate dual left turn lanes.

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CHAPTER 3.0 SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT WHICH CAN BE MITIGATED

3.1 Biological Resources

General and focused biological surveys were conducted of the Project Site and off-site improvement areas between June 2002 and July 2008 to gather information about the site's biological resources. The biological resources assessment in the form of the Biological Technical Report (NRC, 2009) is included as Appendix F-1 to this EIR.

Sensitive plant surveys were conducted between mid-October 2003 and late-August 2004. Special emphasis was placed on searching for threatened, endangered, and otherwise sensitive plants that might be present on-site. Surveys also focused on determining the presence of vernal pool indicator species, rare species, and narrow endemics. Additional sensitive plant surveys were conducted in 2005 and 2006.

Focused surveys for sensitive wildlife species included:

- Habitat assessment for the federally endangered quino checkerspot butterfly (*Euphydryas editha quino*) conducted in early January 2004 and repeated in April 2005;
- Presence-absence surveys for coastal California gnatcatcher performed each year from 2003 through 2008;
- Surveys and pitfall trapping study for Arroyo toad were performed each year from 2003 through 2007;
- Habitat assessment for the least Bell's vireo in 2003 and 2004 and presence-absence surveys were conducted in 2007 and 2008; and
- Presence-absence surveys for the southwestern willow flycatcher were performed in 2007 and 2008.

A jurisdictional delineation report was completed in 2005 and updated in 2008 (Appendix F-2) to identify wetlands and waters of the U.S. under the jurisdiction of the CDFG (Section 1603 of the Fish and Game Code); the ACOE (Section 404 of the CWA); the RWQCB (Section 401 of the CWA); and the County of San Diego.

In addition, RECON prepared a Conceptual Resource Management Plan (2009) to provide direction for the permanent preservation and management of the on-site open space to be included in a conservation easement and a Conceptual Wetland Mitigation Plan to address the mitigation requirements for impacts to jurisdictional waters, including wetlands. These reports are included as Appendix F-3 and F-4 respectively.

3.1.1 Existing Conditions

The biological resources found on the Project Site are shown on Figure 3.1-1 and summarized below. They are described in detail in Appendix F-1.

Existing Regulations

Biological resources are subject to regulatory oversight at three levels: federal, state, and local (County of San Diego).

Federal Regulations

Endangered Species Act

The federal Endangered Species Act (ESA) provides the legal framework for the listing and protection of species (and their habitats) identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a 'take' under the Endangered Species Act. Take of a federally listed threatened or endangered species is prohibited without a special permit. The Endangered Species Act allows for take of a threatened or endangered species incidental to development activities once a Habitat Conservation Plan (HCP) has been prepared to the satisfaction of the USFWS and an incidental take permit has been issued. The Endangered Species Act also allows for the take of threatened or endangered species after consultation has deemed that development activities will not jeopardize the continued existence of the species. The federal ESA also provides for a Section 7 Consultation when a federal permit is required, such as a Clean Water Act Section 404 permit. It is this vehicle that the applicant will be using.

"Critical Habitat" is a term within the federal Endangered Species Act designed to guide actions by federal agencies (as opposed to state, local, or other agency actions) and defined as "an area occupied by a species listed as threatened or endangered within which are found physical or geographical features essential to the conservation of the species, or an area not currently occupied by the species which is itself essential to the conservation of the species."

Section 404 Clean Water Act Regulations

The Clean Water Act (CWA) provides wetland regulation at the federal level and is administered by the ACOE. The purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of all waters of the U.S. Permitting is required for filling waters of the U.S. (including wetlands). Permits may be issued on an individual basis or may be covered under approved nationwide permits.

Regional Water Quality Control Board (RWQCB)

The RWQCB not only regulates impacts to waters of the U.S. under the CWA, but also regulates the isolated waters that are impacted under the state Porter Cologne Act utilizing a Waste Discharge Requirement. The Chief Counsel for the State Water Resources Control Board recently issued a memorandum which affects the Section 401 Water Quality Certification Program. In this memorandum the SWRCB's Chief Counsel administratively expands SWRCB's own definition of "waste" to include discharge of fill material into isolated waters of the United States. Consequently, discharge of fill material into waters of the State not subject to the jurisdiction of the Corps pursuant to Section 404 of the Clean Water Act may require authorization pursuant to the Porter Cologne Act through application for waste discharge requirements (WDRs) or through waiver of WDRs, despite the lack of a clear regulatory imperative.

Migratory Bird Treaty Act (MBTA)

All migratory bird species that are native to the U.S. or its territories are protected under the federal Migratory Bird Treaty Act (MBTA), as amended under the Migratory Bird Treaty Reform Act (MBTRA) of 2004 (FR Doc. 05-5127; USFWS 2004). The MBTA is generally protective of migratory birds.

State of California

California Endangered Species Act

The California Endangered Species Act, similar to the federal Endangered Species Act, contains a process for listing of species and regulating potential impacts to listed species. State threatened and endangered species include both plants and wildlife, but do not include invertebrates. The designation “rare species” applies only to California native plants. State threatened and endangered plant species are regulated largely under the Native Plant Preservation Act in conjunction with the California Endangered Species Act. State threatened and endangered animal species are legally protected against “take.” The California Endangered Species Act authorizes CDFG to enter into a memorandum of agreement for take of listed species to issue an incidental take permit for a state listed threatened and endangered species only if specific criteria are met.

State Species of Special Concern

Species of special concern is an informal designation used by the CDFG for some declining wildlife species that are not officially listed as endangered, threatened, or rare. This designation does not provide legal protection, but signifies that these species are recognized as vulnerable by CDFG.

California Fully Protected Species

Species that are California fully protected include those protected by special legislation for various reasons, such as the white-tailed kite (*Elanus leucurus*).

Wetlands Regulations

The California Fish and Game Code (Sections 1600 through 1603) requires a Streambed Alteration Agreement with CDFG for projects affecting riparian and wetland habitats.

County of San Diego

Multiple Species Conservation Program (MSCP)

The NCCP program of the Department of Fish and Game, pursuant to the California Fish and Game Code Section 2800-2835 (the NCCP Act), identifies and provides for the regional protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activity. To implement the NCCP, the County, along with other local agencies, is in the process of preparing MSCPs. The goal of the MSCP is to maintain and enhance biological diversity in the region and maintain viable populations

of endangered, threatened, and key sensitive species and their habitats while promoting regional economic viability through streamlining the land use permit process.

The County is currently in the process of creating a MSCP for the unincorporated areas of northern San Diego County. The MSCP generally does not designate an exact preserve boundary, but instead designates large Pre-approved Mitigation Areas (PAMAs) within which conservation efforts are to be concentrated and a preserve will be assembled. The MSCP generally provides incentives for development to occur outside of a PAMA.

A hardline is a designation that has been agreed upon between landowners, the wildlife agencies, and the County. The hardline defining preserve and development areas have been negotiated for a few properties, including Meadowood for the North County MSCP. In such areas, preservation and development area decisions were made during MSCP development with respect to the location of open space and development. The draft North County MSCP map shows certain areas of the Project Site as “take authorized” and others as preserved. The open space in Meadowood is connected to other proposed PAMAs to the north and east, forming part of a large habitat block that extends from I-15 east to the Pala Indian Reservation and beyond. See Figure 3.1-2 for the draft North County MSCP designations.

Habitat Loss Permit Ordinance

The County regulates coastal sage scrub habitat loss through the Habitat Loss Permit (HLP) Ordinance. An HLP is a process that enables the County of San Diego to issue "take" permits for the federally listed coastal California gnatcatcher, as allowed through the federal Endangered Species Act. An HLP application must be filed with the County and approval requires concurrence from USFWS and CDFG. Approval is based on Findings made pursuant to the County’s HLP Ordinance (1994) as required by the NCCP Process Guidelines. Until the North County MSCP is approved, the HLP is required for all coastal sage scrub impacts, whether or not the coastal California gnatcatcher occupies the habitat. An HLP also requires a mitigation plan for impacts to coastal sage scrub and disturbed coastal sage scrub.

Resource Protection Ordinance

The Resource Protection Ordinance (RPO) limits impacts to several sensitive natural resources found throughout San Diego County. These sensitive resources include wetlands, floodplains, steep slopes, sensitive habitat lands, and prehistoric and historic sites. A Resource Protection Study pursuant to Sec.86.605(b) is required for discretionary projects that may affect these sensitive natural resources. Several sections of the RPO are pertinent to the Proposed Project.

As detailed within the Biological Technical Report and discussed below, there are no wetlands on-site that meet the RPO standard as “wetlands.” Many of the wetlands on or adjacent to the site are fed by agriculture runoff. These wetlands are isolated and not considered an RPO wetland under Section 86.602 (q)(2)(aa). Some road construction associated with off-site improvements will impact RPO wetlands on adjacent properties. However, the Specific Plans associated with these properties have been exempted from the provisions of RPO, thus impacts are allowed.

Under the RPO, a wetland buffer is required where development is adjacent to wetland areas (Sec. 86.604[b]). In addition, encroachment into RPO steep slopes lands (25 percent or greater grade for 50 or more feet) must be minimized in accordance with Section 86.604 (e).

Under the RPO Sec. 86.602(n) habitat such as occupied coastal sage scrub is a "sensitive habitat land" as it is substantially depleted in the region and is habitat for the federally threatened coastal California gnatcatcher. Habitat associated with a functioning wildlife corridor is also defined as a "sensitive habitat land" under the RPO Sec. 86.602(n).

As required by the RPO, impacts to sensitive habitat lands must be minimized and mitigated.

Vegetation Communities

Eleven plant communities, or habitats, were identified on the Project Site: agricultural (209.9 acres); coastal sage scrub (56.5 acres); disturbed coastal sage scrub (30.6 acres); southern mixed chaparral (19.6 acres); coast live oak woodland (1.7 acres); willow/mule fat scrub (≤0.1 acres); open water/pond (0.7 acres); non-native grassland (31.9 acres) non-native trees (8.3 acres); pastureland (1.5 acres); and developed or disturbed areas (28.7 acres).

Habitats identified on the off-site improvement areas (grading, roads, Second Aqueduct connection and waterlines) include: agricultural (3.8 acres); coastal sage/ disturbed coastal sage scrub (1.9 acres); coast live oak woodland (0.2 acre); southern willow scrub (1.0 acre); fresh water marsh (0.3 acre); non-native grassland (5.4 acres) non-native trees (1.02 acres); southern arroyo willow riparian forest (2.77 acres); pastureland (28.7 acres); and developed or disturbed areas (19.5 acres).

A wetland exists off-site on the adjacent Campus Park project site, west of the Proposed Project. The Proposed Project assumes this wetland will remain intact and as discussed throughout this section, includes an on-site wetland buffer.

The extent and location of these vegetation communities are shown in Figure 3.1-1 and the acreage of each vegetation community on the Project Site is listed in Table 3.1-1.

Agricultural

Most of the Project Site has been used for various agricultural activities, with extensive areas supporting citrus and avocado orchards occupying the lower and mid-portions of ridges and slopes in the central portion of the site. These areas are irrigated, and the trees are maintained by periodic trimming and pruning. In the narrower portion to the south are seasonally planted fields.

Coastal Sage Scrub

Coastal sage scrub vegetation occurs predominantly on west- and south-facing slopes, including the southern and western slopes and ridgetops of Monserate Mountain along the northern and eastern boundaries of the Project Site. This plant community is

characterized by the presence of drought-tolerant shrubs, most of which are also drought-deciduous.

Disturbed Coastal Sage Scrub

Portions of the west-facing slopes of Monserate Mountain were mapped as disturbed coastal sage scrub where previously removed sage scrub vegetation is recovering. In these areas, there is a mixture of sage scrub plant species with annual grasses, mustards, and other grassland elements.

Southern Mixed Chaparral

Southern mixed chaparral is the second most dominant native plant community within the boundaries of the Project Site. Chaparral is characterized by deep-rooted evergreen leafy shrubs that form dense and often impenetrable canopy. This plant community frequently occurs on dry, rocky and steep terrain. It generally grows from four to 15 feet in height with little to no understory, due to the uniformly dense canopy.

Coast Live Oak Woodland

Coast live oak woodland is represented by a few individual trees and two small groves on the moderate to steep slopes in the eastern portion of the Project Site. The oaks are associated with other plant communities occurring on the site, including coastal sage scrub, southern mixed chaparral and annual grassland.

Willow/Mule Fat Scrub

A small drainage runs through the western boundary of the Project Site and supports small arroyo willows and mule fat.

Open Water Ponds

Traces of riparian-associated plant-life are growing along the edges of two artificial detention basins, or irrigation ponds, used to store water for agricultural purposes and supporting traces of riparian vegetation along edge. There are additional ponding areas situated in the central portion of the site, within the citrus and avocado orchards. They do not comprise a distinct habitat type or plant community.

Non-Native Grassland

Non-native grassland vegetation is characteristically dominated by grasses, or co-dominant with various forbs. Non-native or annual grassland is found in areas where the soil has been disturbed, generally through agricultural activities.

Non-Native Trees

Non-native trees are scattered throughout the southern half of the Project Site associated with developed areas of the Project Site. The majority of the non-native trees are eucalyptus.

Pastureland

The western edge of the Project Site is occupied by small strips of pastureland which continue to the west and provide pasture for grazing livestock. Pastureland consists of non-native grasses and forbs cut low to the ground by grazing animals.

Graded and Developed Areas

A network of graded dirt roads has been created to provide access throughout the Project Site, reaching various portions of the citrus and avocado orchards, as well as adjacent slopes. Two small areas in the extreme southern and central areas of the Project Site have houses with landscaped yards.

Special Status Biological Resources

Special status biological resources include declining habitats and species that have been accorded special recognition by federal, state, or local conservation agencies and organizations as endangered, threatened, rare, or otherwise of concern. Complete definitions of these special status categories is found in the Biological Technical Report (see Appendix F-1). Databases of such resources are maintained by the CDFG, the USFWS, and special groups such as the California Native Plant Society (CNPS).

Habitats

Several plant communities or habitat types are considered sensitive by the CDFG's California Natural Diversity Data Base (CNDDB) because they are scarce and/or because they potentially support state and/or federal listed endangered or threatened wildlife species and/or vascular plant species. The only such plant community on-site is coastal sage scrub. It is considered a highest-inventory priority community by the CDFG, indicating that it is declining in acreage throughout its range due to land use changes. Coastal sage scrub, including regenerating coastal sage scrub following disturbance, occurs on ridges and south- and west-facing slopes. This community supports a number of special status species including the coastal western whiptail, coast horned lizard, southern California rufous-crowned sparrow, Bell's sage sparrow, and San Diego black-tailed jackrabbit. Coastal sage scrub on and in the vicinity of the Project Site has been known to support the federally threatened coastal California gnatcatcher. Coastal sage scrub has been state-ranked as S3.1 by the CNDDB.

Wetlands/Jurisdictional Waters

Wetlands are considered a sensitive biological resource. Disturbance to wetlands is regulated by several agencies, all of which have very specific definitions. There is considerable overlap among the various jurisdictions. The definitions, findings, and calculated impacts to the various jurisdictional areas are described in detail in the Revised Jurisdictional Delineation (2008), included as Appendix F-2 to this EIR and summarized below.

ACOE Jurisdiction

There are 0.83 acres (35,965 ft^2) of waters of the United States under the jurisdiction of the ACOE, of which 0.14 acre consist of jurisdictional wetlands. The drainage located in

the central portion of the Project Site, (also referred to as “Drainage 4” in the Biological Technical Report and Revised Jurisdictional Delineation), supports the entirety of the 0.14-acre jurisdictional wetlands. In addition to the 0.83 acre of ACOE jurisdictional waters, there is 0.06 acre of isolated waters, none of which consist of wetlands.

CDFG Jurisdiction

There are 0.93 acres (40,618 ft^2) of area under the jurisdiction of the CDFG, of which 0.34 acre consist of vegetated riparian habitat.

County of San Diego

There are no County RPO wetlands on-site. Although the 0.14 acre of wetlands in the drainage located in the central portion of the Project Site support several riparian vegetation species, including some sparse mule fat and willows, and hydric soils, they are not considered RPO wetlands. Section 86.602(q)(2)(bb) of the RPO states that lands that have been disturbed by past legal actions, have negligible biologic function and value, and that do not support a substantial or locally important population of wetland dependent species, are not considered to be "wetlands". The wetland attributes in this drainage are the result of legal agricultural irrigation runoff, the biological functions and values are negligible, and the area does not support any substantial or locally important wetland dependent species. Therefore, the on-site ephemeral drainage features do not support hydrophytes, undrained hydric soils, or a water table that is usually at or near the ground surface. As such, they do not meet the County’s wetland definition in the RPO.

Sensitive Plants

No special status plant species were detected on the Project Site. Several special status plant species have been recorded within the vicinity of the Project Site; however, none of these species were identified on-site. Sensitive plants potentially occurring on the Project Site are listed in Table III of Appendix F-2.

Sensitive Wildlife

Agency-listed Animal Species Found on the Site or Immediate Vicinity of the Site

Federally listed wildlife species detected in the vicinity of the Proposed Project are illustrated on Figure 3.1-3; Figure 3.1-4 indicates Critical Habitat areas in the Proposed Project vicinity. Sensitive wildlife species observed on the Project Site, as well as other sensitive wildlife potentially occurring but not observed are listed in Table IV of Appendix F-2.

Two federally or state listed wildlife species, arroyo toad (endangered) and coastal California gnatcatcher (threatened), were detected on-site. Two other species of wildlife listed by either the USFWS or the CDFG as threatened or endangered are known to occur in the immediate vicinity of the Project Site: least Bell’s vireo and southwestern willow flycatcher. Least bell’s vireo has been detected near off-site improvement areas. These four species are discussed below.

Arroyo Toad (*Bufo californicus)*

STATUS: Federal Endangered, Group 1.

HABITAT: Restricted to open riparian woodlands and alluvial habitats, where it breeds in shallow, gravelly, slow-moving streams and pools. It is a habitat specialist, requiring exposed shallow, gravel- or sand-based pools with low current velocity and little marginal vegetation in streams free of predatory fishes.

DISTRIBUTION: Foothill regions in southern California below 3,000 ft (900 m) elevation from San Luis Obispo County to Baja California. It historically occurred along the length of drainages, including coastal areas, but now survives generally in the headwaters as small isolated populations.

OCCURRENCE ON-SITE: One individual was observed on the site south of the former alignment of SR-76 in 2007 (Cadre 2008).

OCCURRENCE OFF-SITE: Several individuals have been observed off-site south of the former alignment of SR-76 and north of the San Luis Rey River between 2003 through 2007 (Cadre 2008).

OPTIMAL SURVEY PERIOD: Breeding season surveys, April to June.

No arroyo toads had been observed within the Project Site boundary between 2003 and 2006. In 2007, one individual was observed in the southernmost portion of the Project Site's panhandle, just south of the former alignment of SR-76. Several arroyo toads have been recorded off-site. Six individual arroyo toads were detected during focused arroyo toad surveys within the San Luis Rey River upstream from the site, and two individuals were documented using the road network 140 feet south and 400 feet east of the Project Site (south of SR-76) during the 2003 surveys. During the 2004 surveys, no arroyo toads were documented using the road network immediately adjacent to the Project Site; however two individual arroyo toads were documented upstream and one individual was documented downstream within the San Luis Rey River. In 2005, three arroyo toads were observed within the San Luis Rey River southwest of the Project Site. In 2006, 52 arroyo toad observations (pitfall trapping and focused surveys) were made south of the Project Site in the new pitfall trap lines located adjacent to the river. In 2007, four arroyo toads were captured in pitfall traps within/adjacent to the San Luis Rey River (Figure 3.1-3).

Four categories of arroyo toad habitat were identified on and in the vicinity of the Project Site: potential breeding, high quality foraging/aestivation, low quality foraging/aestivation, and unoccupied habitat. Potential breeding habitat is located within the active channel of the San Luis Rey River. High quality foraging/aestivation habitat is found off-site in the lower flood prone areas of the San Luis Rey River dominated by riparian vegetation. Low quality foraging/aestivation habitat is located in the upper flood prone areas of the San Luis Rey River dominated by citrus/avocado groves. The groves have suitable soil conditions, irrigation, and detritus layer for burrowing and localized aestivation. The portion of the on-site area south of the former alignment of SR-76 is low-quality foraging/aestivation habitat. As shown in Figure 3.1-4, unoccupied habitat is located north of the former alignment of SR-76 and includes the majority of the site. The unoccupied habitat is well within one km from known arroyo toad breeding locations.

Low quality habitat extends between 600 and 1,300 feet from the San Luis Rey River north to SR-76.

Excluded Essential Habitat, but no Critical Habitat, for this species has been designated along the San Luis Rey River and its tributaries (Figure 3.1-4). Near the Project Site, it extends into Horse Ranch Creek and onto the Project Site in the southern and western portions. Although the Project Site contains about 8.2 acres of Excluded Essential Habitat, only about 3.5 acres was suitable for seasonal arroyo toad use prior to construction of the new SR-76 alignment, including the orange groves at the southern tip of the Project Site south of the former SR-76 alignment. Current construction of the new SR-76 alignment has created a permanent barrier to arroyo toad access to the Project Site.

In San Diego County, the arroyo toad is found along most major drainages, although it has been extirpated from some and seriously depleted from others. The arroyo toad continues to occur along most of the length of the San Luis Rey River and its range within San Diego County closely parallels that of the least Bell's vireo.

California Gnatcatcher (*Polioptila californica*)

STATUS: Federal Threatened, Group 1.

HABITAT: Principally, the various associations of coastal sage scrub (Venturan, Riversidean, Diegan, Maritime, etc.), but also in chamise chaparral, especially where it occurs in association with sage scrub. Occasionally utilizes other habitats, such as riparian scrub, riparian woodland, and even grassland, outside the breeding season.

DISTRIBUTION: Southeastern Ventura County (locally), Los Angeles County (locally, primarily in the southern portion), extreme southwestern San Bernardino County, western Riverside County, Orange County, and San Diego County west of the mountains. Also found throughout much of Baja California.

OCCURRENCE ON-SITE: Not detected on-site during focused surveys conducted in 2003-2004, 2005, 2006, and 2008. An individual (unpaired) gnatcatcher was detected in the northwestern corner of the site in 2007.

OCCURRENCE OFF-SITE: One individual gnatcatcher was detected just off-site in a narrow corridor of riparian scrub in 2004. Two individual gnatcatchers were observed in the vicinity of proposed off-site improvements along Pankey Road in 2007.

OPTIMAL SURVEY PERIOD: Year-round, but mid-February through August for breeding.

Protocol-level surveys for California gnatcatcher conducted on and immediately adjacent to the Project Site in 2003-2004, 2005, 2006, and 2008 did not detect this species in suitable coastal sage scrub habitat. One individual was found just off-site in a narrow corridor of riparian scrub in 2004. The small drainage corridor is surrounded by pastureland and citrus/avocado groves and the closest coastal sage scrub habitat is approximately 1,500 feet away. As this individual was not in appropriate breeding habitat, it is presumed to have been a non-resident, possibly dispersing individual. One breeding pair was located approximately 0.4 mile northwest of the Project Site in Pankey

Wash just east of I-15. During the 2007 protocol surveys, one male California gnatcatcher was observed in the northwestern corner of the Project Site. Also, during these surveys two male gnatcatchers were observed in coastal sage scrub along Pankey Road in the vicinity of the proposed Pankey Road and water pipeline off-site improvements (Figure 3.1-5).

Based on the quality and maturity of the coastal sage scrub on the Project Site and the presence of a male California gnatcatcher in 2007, all coastal sage scrub on the Project Site is assumed to be suitable and occupied California gnatcatcher habitat. Similarly, the adjacent coastal sage scrub to the north of the Project Site and east of I-15 is considered occupied gnatcatcher habitat due to the presence of two males observed along Pankey Road. The occupied habitat includes coastal sage scrub associated with the Pankey Road widening, Pala Mesa Heights Drive, Horse Ranch Creek Road and water line off-site improvements and coastal sage scrub on the site. No California gnatcatchers have been observed south of the Project Site or west of I-15. This area is designated as unoccupied California gnatcatcher habitat. The unoccupied habitat includes coastal sage scrub associated with Pala Mesa Drive, a portion of Horse Ranch Creek Road, water lines, and off-site grading along the southern site edge.

Critical Habitat for the California gnatcatcher has been designated throughout much of the region and includes all but the central portion of the Project Site (USFWS 2007b). There are approximately 166.5 acres of Critical Habitat on-site that includes 84.7 acres of Critical Habitat considered Primary Constituent Elements (PCEs) for the California gnatcatcher site (Figure 3.1-4). There are also 2.1 acres of suitable gnatcatcher habitat on-site that are not within the boundaries of the Designated Critical Habitat. Off-site improvement areas with PCEs include Horse Ranch Creek Road, Pala Mesa Drive, and water transmission lines.

Suitable breeding habitat for the California gnatcatcher occurs north, south, and east of the Project Site. However, densities of gnatcatchers in the vicinity of the site are low. Locally, the California gnatcatcher is found in higher densities farther north in the Temecula area of extreme southwestern Riverside County, west and south of the town of Bonsall toward the coast, and east of the site in the vicinity of the Pala Indian Reservation. According to the USFWS's 2003 proposed revised Critical Habitat designation for California gnatcatcher, there is a core population of gnatcatcher on the Pala Indian Reservation and a regional north-south corridor through the reservation (USFWS 2003). The Pala Indian Reservation is about seven miles east of the Project Site.

Least Bell's Vireo (*Vireo bellii pusillus*)

STATUS: Federal Endangered; California Endangered, Group 1.

HABITAT: Riparian scrub and riparian woodland along river and stream courses, preferring dense willow thickets for nesting.

DISTRIBUTION: Summer season resident of central and southern California, and northwest Baja California. Additional populations are in the Owens Valley, Death Valley, and along the lower Colorado River.

OCCURRENCE ON-SITE: Not detected on-site.

OCCURRENCE OFF-SITE: In 2007, six least Bell's vireos were located in southern arroyo willow riparian forest along the San Luis Rey River south of the site, and seven other individuals were located in similar habitat along Horse Ranch Creek in the vicinity of the proposed Pala Mesa Drive. In 2008, five vireos were observed along Horse Ranch Creek.

OPTIMAL SURVEY PERIOD: April to August.

The least Bell's vireo occurs along the San Luis Rey River from I-15 to the coast and along the Santa Margarita River. The Santa Margarita River's closest approach to the Project Site is six miles to the northwest. Farther from the Project Site, the species has been found breeding primarily along the San Dieguito River 20-25 miles to the south, with scattered pairs found elsewhere in the county along smaller drainages. In 2007, six least Bell's vireos were located in southern arroyo willow riparian forest along the San Luis Rey River south of the Project Site, and seven other individuals were located in similar habitat along Horse Ranch Creek in the vicinity of the proposed Pala Mesa Drive (Figure 3.1-5). In 2008, five vireos were observed along Horse Ranch Creek in similar locations as found in 2007. All vireos have been observed east of I-15. Least Bell's vireo has not been observed on the site and no suitable habitat for this species is present within the site boundaries.

Based on field observations supplemented by CNDDB records the willow riparian forest vegetation associated with Horse Ranch Creek and the San Luis Rey River is assumed occupied least Bell's vireo habitat. This area includes the off-site improvements for Pala Mesa Drive, Horse Ranch Creek Road, and grading along the southwestern Project Site edge. The riparian vegetation along SR-76 is suitable vireo habitat and is also assumed to be occupied.

The extreme southern portion of the Project Site contains 3.13 acres of Designated Critical Habitat that do not contain any PCE's for least Bell's vireo. Therefore, the Project Site is not considered suitable habitat and is not considered occupied by this species.

Southwestern Willow Flycatcher (*Empidonax traillii extimus)*

STATUS: Federal Endangered; California Endangered, Group 1.

HABITAT: Riparian scrub and riparian woodland along river and stream courses, preferring dense thickets for nesting. These can include vegetation dominated by willows, tamarisk, and even coast live oak.

DISTRIBUTION: Summer season resident of central and southern California, as well as the lower Colorado River.

OCCURRENCE ON-SITE: Not detected on-site.

OCCURRENCE OFF-SITE: Not detected in the vicinity of off-site improvement areas.

OPTIMAL SURVEY PERIOD: May to July.

Recent CNDDB data show four known occurrences of southwestern willow flycatcher in the vicinity of the Project Site from 2000, 2002, and 2006. The nearest record is less

than one mile away from the Project Site along the San Luis Rey River (Figure 3.1-5). USFWS species data show eleven known occurrences of southwestern willow flycatcher within six miles of the Project Site between 2000 and 2004. One observation was located immediately south of the Project Site across SR-76 and three other flycatcher observations were less than one-half mile upstream of the Project Site. No southwestern willow flycatchers were observed on or off-site during protocol presence-absence surveys conducted in 2007 and 2008.

No suitable habitat for this species is present on the Project Site. Suitable, but unoccupied southwestern willow flycatcher habitat occurs in the willow riparian forest vegetation associated with Horse Ranch Creek and the San Luis Rey River. This area includes the off-site improvements for Pala Mesa Drive, Horse Ranch Creek Road and grading along the southwestern Project Site edge. No occupied southwestern willow flycatcher habitat is present on the Project Site or in any off-site improvement area.

Designated Critical Habitat for this species occurs along the San Luis Rey River and its tributaries and is not present on the Project Site or within off-site improvement areas. Of the relatively few breeding localities of southwestern willow flycatcher in San Diego County, most have been along the Santa Margarita River. Fewer breeding locations have been documented along the San Luis Rey River, and most of these have been downstream from the site. In western San Diego County the species is also found in the vicinity of Chula Vista near the Mexican border.

Non-listed Special Status Wildlife Species Observed on the Site

In addition to the listed species described above, there are 21 species that were detected on the Project Site or could be impacted by off-site improvements. These 21 species are special status species, but are not agency listed:

1. Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)
2. Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)
3. Northern harrier (*Circus cyaneus*)
4. Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*)
5. Coastal Western whiptail (*Aspidoscelis tigris stejnegeri*)
6. San Diego ringneck snake (*Diadophis punctatus similis*)
7. Coronado western skink (*Eumeces skiltonianus interparietalis*)
8. Western spadefoot (*Spea hammondi*)
9. San Diego coast horned lizard *(Phrynosoma coronatum blainvillei)*
10. Northern red rattlesnake (*Crotalus ruber ruber)*
11. Cooper's hawk (*Accipiter cooperi*)
12. Yellow warbler (*Dendroica petechia*)
13. Yellow-breasted chat (*Icteria virens*)
14. White-faced ibis (*Plegadis chihi*)
15. Western bluebird (*Sialia mexicana*)
16. Two-striped garter snake (*Thamnophis hammondii*)
17. Green heron (*Butorides virescens*)
18. Turkey Vulture (*Cathartes aura*)
19. Red-shouldered hawk (*Buteo lineatus elegans*)
20. White-tailed kite (*Elanus leucurus*)
21. Barn owl (*Tyto alba pratincola*)

Sensitive Wildlife Species Potentially Occurring But Not Observed On-site

Table IV in Appendix F-2 provides a list of the sensitive wildlife species observed on the Project Site or in and around off-site improvement areas, as well as other sensitive wildlife potentially occurring but not observed on-site. Habitats and conditions that may be appropriate for some of these species to occur on-site are also indicated in Table IV. Based on a review of the 2008 CNDDB records for the USGS Temecula, Pechanga, Bonsall, and Pala Quadrangles and USFWS federal species occurrence data, 40 species of special status animals were detected in the vicinity of the Project Site or near off-site improvement areas. Species occurrence data from the USFWS are presented on Figure 3.1-3 and CNDDB records are presented on Figure 3.1-5.

Wildlife Movement and Habitat Connectivity

Three wildlife movement corridors were observed on or near the Project Site and are illustrated on Figure 3.1-6. Movement paths or corridors were determined based on topography, habitat, wildlife sightings, and scat/tracks. The local I-15 and SR-76 highways act as barriers to wildlife movement in the area to the south and west of the Project Site. The Project Site is connected to a large area of natural vegetation associated with Monserate Mountain to the north.

Corridor 1: This north-south corridor contains upland coastal sage scrub occurring along the southern ridgeline of Monserate Mountain along the eastern and northern portions of the site. The corridor is approximately 600 to 700 feet wide within the site and runs the length of the eastern boundary. The corridor widens to the north connecting coastal sage scrub covered hills to the north with scrub covered hills to the south, SR-76, and further south to the San Luis Rey River. Coyotes and mule deer scat were observed along this ridgeline and its eastern slopes. This corridor is of moderate value to local and regional wildlife movement. Corridor 1 is an important resource for movement of species, providing access to the northern and southern areas that remain as habitable space for wildlife and vegetation communities. However, the corridor is constrained by steep slopes, narrow ridgelines, existing agriculture and residential areas. In addition, the proximity of the SR-76 creates a permanent southern terminus for regional wildlife movement limiting connectivity to regional open space areas.

Corridor 2: This corridor follows the San Luis Rey River drainage and associated riparian scrub immediately south of the Project Site. The drainage connects many different habitats along its east-west course. The corridor is approximately 200 to 400 feet wide and runs the length of the San Luis Rey River.

Corridor 3: This north-south corridor follows the slopes and ridgeline to the east of the Project Site on the western side of Rice Canyon. The disturbed coastal sage scrub and chaparral slopes and ridges connect the mountains and smaller slot canyons to the north with Couser Canyon and the San Luis Rey River to the south. The corridor varies greatly from 500 to 2,500 feet wide and runs the length of the local hills and canyons. Rice

Canyon itself is developed with agriculture and residences that have fenced off most of the access through the bottom of the canyon.

The riparian forest east of I-15 from Stewart Canyon to the north through Horse Ranch Creek to the San Luis Rey River and Keys Canyon to the south may be considered a "stepping stone" or "habitat island" for riparian and migratory birds. This area was not described as a corridor based on the fact that large or mid-size mammal use of this area was not observed and, based on existing obstructions (fences and roads), is not expected. Additionally, SR-76 already acts as a barrier to wildlife movement southward towards the San Luis Rey River.

3.1.2 Guidelines for the Determination of Significance

For the purpose of the EIR, the determination of significance is based on the County's Guidelines for Determination of Significance, Biological Resources, adopted September 26, 2006.

A project will have a significant adverse environmental effect related to biology if a project-related component results in any of the following:

Special Status Species

1. The project would impact one or more individuals of a species listed as federally or state endangered or threatened.
2. The project would impact the regional long-term survival of a County Group A or B plant species, or a County Group I animal species, or a species listed as a state Species of Special Concern.
3. The project would impact the regional long-term survival of a County Group C or D plant species or a County Group II animal species.
4. The project would impact arroyo toad aestivation or breeding habitat.
5. The project would impact golden eagle habitat.
6. The project would result in a loss of functional foraging habitat for raptors.
7. The project would increase the noise and/or nighttime lighting to a level above ambient proven to adversely affect sensitive species.
8. The project would impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more not limited to project boundaries, though smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or an area that supports multiple wildlife species.
9. The project would increase human access or predation or competition from domestic animals, pests or exotic species to levels that would adversely affect sensitive species.
10. The project would impact nesting success of sensitive animals (as listed in the Guidelines for Determining Significance) through grading, clearing, fire fuel modification, and/or noise generating activities such as construction.

Riparian Habitat and Sensitive Natural Communities

11. Project-related construction, grading, clearing, construction or other activities would temporarily or permanently remove sensitive native or naturalized habitat on or off the project site.
12. Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by ACOE, CDFG, and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity and abundance.
13. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of three feet or more from historical low groundwater levels.
14. The project would increase human access or competition from domestic animals, pests or exotic species to levels proven to adversely affect sensitive habitats.
15. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

Jurisdictional Waters including Wetlands

The format of the biology reports is based on the CEQA Guidelines, which discusses riparian and sensitive habitats in a separate section from wetlands. The Guidelines of Significance for jurisdictional wetlands and waterways are based on the Guidelines of Significance for riparian habitat listed as numbers 11 through 15 above.

Wildlife Movement

16. The project would prevent wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.
17. The project would substantially interfere with a local or regional wildlife corridor or linkage.
18. The project would create artificial wildlife corridors that do not follow natural movement patterns.
19. The project would increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels proven to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.
20. The project does not maintain an adequate width for an existing wildlife corridor or linkage and/or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses to it, and placement of barriers in the movement path.
21. The project does not maintain adequate visual continuity (i.e., long lines-of-site) within wildlife corridors or linkage.

Local Policies, Ordinances, and Adopted Plans

22. For lands outside of the MSCP, the project would impact coastal sage scrub vegetation in excess of the County's 5 percent habitat loss threshold as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.
23. The project would preclude or prevent the preparation of the subregional NCCP. For example, the project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.
24. The project will impact wetlands or sensitive habitat lands as outlined in the RPO.
25. The project would not minimize and/or mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the NCCP Guidelines.
26. The project does not conform to the goals and requirements as outlined in any applicable HCP, Habitat Management Plan (HMP), Special Area Management Plan (SAMP), Watershed Plan, or similar planning effort.
27. For lands within the MSCP, the project would not minimize impacts to Biological Resource Core Areas, as defined in the Biological Mitigation Ordinance (BMO).
28. The project would preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.
29. The project does not maintain existing movement corridors and/or habitat linkages as defined by the BMO.
30. The project does not define impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.
31. The project would reduce the likelihood of survival and recovery of listed species in the wild.
32. The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (MBTA).
33. The project would result in the take of eagles, eagle eggs or any part of an eagle (Bald and Golden Eagle Protection Act).

3.1.3 Analysis of Project Effects and Determination as to Significance

The anticipated on-site project effects associated with implementation of the Proposed Project and off-site improvements are summarized below. Following this generalized discussion of on- and off-site impacts is a more detailed analysis of Special Status Species; Riparian Habitat and Sensitive Natural Communities; Jurisdictional Wetlands; Wildlife Movement Corridors; and Local Plans and Policies. These topical discussions follow the same order of the Guidelines for the Determination of Significance listed in Section 3.1.2 and the Biological Technical Report (see Appendix F-1).

All impacts for the Proposed Project have been classified as permanent, temporary or impact neutral as described below.

- A permanent impact is defined as an impact that will remove vegetation and will not be restored or revegetated. Grading, brush management, and installation of structures are examples of permanent impacts.

- A temporary impact is defined as an impact that will remove or disturb vegetation and will be restored or revegetated to its original condition with the same species or vegetation communities as the resources being impacted and no further mitigation is required. Additionally, the restored/revegetated area will not be used towards mitigation credit. On-site temporary impacts include trenching and construction of a water main between the water tanks and residential area in the eastern portion of the site as shown on Figure 3.1-7a.

- Impact neutral areas, in accordance with County Guidelines of Significance, are not considered removal areas, but cannot be credited toward mitigation requirements. The impact neutral area on the Project Site is confined by the water tanks and access road separating it from the majority of the preserved open space.

On-site Impacts

Development of the Proposed Project would have adverse impacts on various biological resources present on the Project Site. The Proposed Project would develop approximately 217.8 acres of the site for residential and associated uses, including parks, fire access road, and an elementary school. This area includes a 100-foot Limited Building Zone Easement, brush management zone, and water tanks. The Proposed Project will include a WWTP and wet weather ponds in the southern portion of the Project Site. As discussed in the Chapter 1.0, to minimize bullfrog use of the water storage and detention basins associated with the WWTP, an exclusion fence shall be installed and maintained around the perimeter of each basin. The fence will be designed to prevent adult bullfrogs from entering the basins while minimizing obstructions to bird and mammals. The fence and basins will be monitored once yearly by a qualified biologist to determine the presence or absence of bullfrogs or other exotic amphibians using the basins. If bullfrogs are observed in the basins, they will be removed by the biologist using methods consistent with similar programs implemented by the DEH. Monitoring efforts shall be implemented once yearly after heavy rains when the basins will be inundated and provide suitable conditions for bullfrog use and observation. The County Department of Parks and Recreation as well as the DEH will be provided yearly letter reports for five years following initial use of the detention basins. These agencies will also be contacted as necessary to determine the need and manner of bullfrog eradication efforts.

Vegetation communities affected by grading on the Project Site include coastal sage scrub, disturbed coastal sage scrub, southern mixed chaparral, coast live oak woodland, mixed willow/mule fat scrub along with annual grassland, agriculture, pastureland, open water, non-native trees and disturbed/developed areas. The anticipated on-site impacts to vegetation communities are shown on Figure 3.1-7a-c and listed in Table 3.1-2.

As described further below, implementation of the Proposed Project would result in direct and indirect impacts to potentially occupied habitat of two federal listed wildlife species; California gnatcatcher (threatened) and arroyo toad (endangered). Proposed grading would result in the removal of approximately 12.6 acres of occupied habitat for California gnatcatcher. On-site impacts also include permanent impacts to 0.83 acre of ACOE jurisdictional waters and 0.93 acres of CDFG jurisdictional waters (GLA 2009).

Off-Site Impacts

Proposed off-site improvements including grading, road construction and improvements and the extension of water and wastewater transmission lines would result in impacts to biological resources. Specifically, road improvements are proposed for Pala Mesa Drive, Pankey Road, Pala Mesa Heights Drive, Horse Ranch Creek Road, a residential connection road, and water tank access road. The extension of water pipelines and connection to the Second Aqueduct associated with the preferred alignment, located west of I-15, were surveyed. While the alignment would be within road right of way, some upland vegetation would be removed as shown on Tables 3.1-3 and 3.1-4, and Figures 3.1-7 a, b, and c. No wetlands would be affected by the connection to the Second Aqueduct.

Widening and realignment of portions of SR-76 (from I-15 east 1.3 miles) has already been permitted separately by different applicants (Pala Band of Mission Indians, Granite Construction Company, and Caltrans) and is not a part of the Proposed Project. As discussed in detail below, development of off-site improvement areas would result in the permanent removal of approximately 64.6 acres of natural vegetation communities in additional to temporary construction-related impacts.

Potential impacts associated with off-site improvements are listed in Tables 3.1-3 and 3.1-4 and shown on Figures 3.1-7 a, b, and c. These tables also identify which improvements may affect federally listed species.

Specific off-site improvements associated with Horse Ranch Creek Road, Pala Mesa Heights Drive, Pankey Road, and the placement of water/ wastewater transmission lines within the roadways or right of ways, would remove 0.9 acres of occupied California gnatcatcher habitat. Another 1.0 acres of unoccupied gnatcatcher habitat would be removed in off-site improvements associated with Pala Mesa Drive, a portion of Horse Ranch Creek Road, the water and wastewater lines and grading along the southern edge of the Project Site. It is anticipated that 3.7 acres of suitable least Bell's vireo habitat (southern willow scrub and southern arroyo willow riparian forest) may be lost due to the construction/widening of Horse Ranch Creek Road, Pala Mesa Drive, and off-site grading along the southern edge of the Project Site.

The off-site development of the Proposed Project will result in permanent impacts to 2.29 acres of ACOE, CDFG jurisdictional waters and RPO wetlands and temporary impacts to 2.04 acres of ACOE, CDFG and RPO wetlands jurisdiction off-site (GLA 2009).

Special Status Species (Guidelines 1 through 10)

A significant impact would occur if the project adversely affects special status plant or animal species.

Special Status Plant Species (Guidelines 2 & 3)

No special status plant species have been detected on the Project Site. Therefore, no direct or indirect impacts would be expected to special status, threatened, or endangered plant species.

Threatened or Endangered Wildlife Species (Guideline 1)

The Project Site is located in the vicinity of known occurrences of the arroyo toad, California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher. Potential direct and indirect impacts associated with on and off-site improvements are described in the following paragraphs. In addition, this section describes potential project effects to Designated Critical Habitat for the California gnatcatcher, Designated Critical Habitat for the least Bell's vireo and Proposed Critical Habitat for the southwestern willow flycatcher.

Arroyo Toad (Guidelines 1 and 4)

One arroyo toad was located on the Project Site using low quality foraging and aestivation habitat south of the former alignment of the SR-76 prior to the current realignment construction. Road construction has created a barrier to arroyo toad movement from the San Luis Rey River to the low quality aestivation habitat in the southernmost portion of the site. The permanent barrier between the south side of SR-76 and the Project Site eliminates any potential use of the Project Site by arroyo toad.

Direct Impacts

The Proposed Project will not have any permanent or temporary direct effects on arroyo toad. Likewise, no Critical Habitat for the arroyo toad will be impacted by the Proposed Project. Therefore, direct impacts to arroyo toads and their habitat are **less than significant**.

Indirect Impacts

Construction activities in the vicinity of arroyo toads and their habitat may result in indirect impacts. Indirect impacts may include increased nighttime lighting, erosion, and debris or construction equipment within identified habitat. Additionally, all drainage from proposed roads and structures associated with the Proposed Project would flow into a storm drain system and detention basins. Any changes in the quantity or quality of run-off from the Project Site that would increase sediment load in nearby occupied habitat could also result in indirect impacts.

Therefore, indirect impacts to arroyo toads and their habitat associated with construction activities and/or debris and polluted water entering into the storm drain system would be considered a **significant impact** (**BR-1**).

California Gnatcatcher (Guidelines 1, 7, and 9)

In 2007, one California gnatcatcher was observed on the site in the northern patch of coastal sage scrub and two other individuals were observed near the Pankey Road and water line off-site improvement areas. Based on the quality and maturity of the coastal sage scrub on the site and the presence of the male California gnatcatcher in 2007 all coastal sage scrub on the site is, assumed to be suitable and occupied California gnatcatcher habitat.

Direct Impacts

Direct impacts to California gnatcatcher habitat include both permanent and temporary impacts to coastal sage scrub vegetation.

Permanent impacts include approximately 12.6 acres on-site and 0.9 acres in off-site improvement areas (Horse Ranch Creek Road, Pala Mesa Heights Drive, Pankey Road, and water lines), totaling 13.5 acres.

In addition, 1.0 acre of unoccupied coastal sage scrub and disturbed coastal sage scrub would be removed in off-site improvement areas for Pala Mesa Drive, a portion of Horse Ranch Creek Road, water lines, and grading along the site edge. No California gnatcatchers have been observed south of the site or west of I-15 in these off-site improvement areas and are therefore considered unoccupied. No California gnatcatchers have been observed within these specific improvement areas. Overall, Proposed Project impacts total 14.5 acres of occupied and unoccupied habitat due to permanent removal of habitat.

Additionally, there would be temporary on-site impacts to 0.2 acre of presumed occupied California gnatcatcher habitat and temporary off-site impacts to 0.1 acre of occupied and unoccupied habitat. These temporary impacts would result specifically from improvements to Pala Mesa Heights Drive.

Approximately 34.2 acres of Designated Critical Habitat for the California gnatcatcher would be removed through project grading. Within the on-site grading area, approximately 11.6 acres of Critical Habitat consists of habitat containing Primary Constituent Elements (PCEs) for this species (i.e. coastal sage scrub and disturbed coastal sage scrub vegetation). The remaining 22.6 acres consist of agricultural areas, annual grasslands, and disturbed areas and do not contain PCEs for this species. Off-site, 40.1 acres of Critical Habitat are within proposed off-site improvement areas of which 1.9 acres consists of coastal sage scrub vegetation. A total of 13.5 acres of Designated Critical Habitat that contain PCEs on and off-site will be impacted by the project. These 13.5 acres are included within the 14.5 acres of identified impacts to California gnatcatcher habitat; the remaining impacts to 1.0 acre of gnatcatcher habitat are outside the Critical Habitat boundaries.

Permanent removal of 14.5 acres of occupied, unoccupied and disturbed coastal sage scrub and temporary impact to 0.3 acre of occupied, unoccupied and disturbed coastal sage scrub would be considered a **significant impact** (**BR-2**).

Indirect Impacts

Construction activities and increased human presence in the vicinity of California gnatcatchers and their habitat may result in indirect impacts. Indirect impacts may include increased noise, increased nighttime lighting, erosion, and debris or construction equipment in the preserved habitat. Public access into the proposed open space through existing trails may result in people and pets entering the suitable habitat areas. These edge effects represent a **significant impact** (**BR-3**).

Least Bell's Vireo (Guidelines 1 and 7)

Least Bell's vireos have been observed in several locations along the San Luis Rey River and Horse Ranch Creek in the vicinity of the Project Site. No least Bell's vireo habitat occurs on-site.

Direct Impacts

No direct on-site impacts to least Bell's vireo are anticipated as a result of the Proposed Project.

Off-site impacts would result due to roadway improvements. It is anticipated that 3.7 acres of occupied southern willow scrub and southern arroyo willow riparian forest habitat would be removed by the construction/widening of Horse Ranch Creek Road, Pala Mesa Drive, and grading along the Project Site edges just off-site.

Temporary impacts to 2.2 acres of suitable habitat for least Bell's vireo would occur due to grading along the Project Site edge, Horse Ranch Creek Road and Pala Mesa Drive construction.

No on or off-site improvements are anticipated to adversely affect the least Bell's vireo Critical Habitat with PCEs. Impacts to 3.1 acres of least Bell's vireo Critical Habitat consist of non-native trees and pasture, which are not PCEs for this species.

The permanent removal of 3.7 acres of suitable habitat and temporary impacts to 2.2 acres of suitable habitat for least Bells' vireo would be considered a **significant impact** (**BR-4**).

Indirect Impacts

Construction activities in the vicinity of least Bell's vireos and their habitat may result in indirect impacts. Indirect impacts may include increased noise, increased nighttime lighting, erosion, and debris or construction equipment in the preserved habitat. These edge effects are considered a **significant impact** (**BR-5**).

Southwestern Willow Flycatcher (Guidelines 1 and 7)

No southwestern willow flycatchers have been detected on-site or in the vicinity of off-site improvement areas.

Direct Impacts

No on-site project impacts would have any direct impacts on southwestern willow flycatcher and would not remove any suitable habitat for this species.

Suitable, but unoccupied, southwestern willow flycatcher habitat would be removed as a result of off-site improvements including the construction/widening of Pala Mesa Drive and Horse Ranch Creek Road. These impacts will cover the same permanent impacts associated with removal of least Bell's vireo habitat and include 3.7 acres of southern arroyo willow riparian forest and southern willow scrub.

Temporary impacts to 2.2 acres of suitable habitat would occur due to grading along the edge of the Project Site and the construction/improvement of Horse Ranch Creek Road and Pala Mesa Drive.

No other on or off-site improvements related to this project are anticipated to adversely affect the southwestern willow flycatcher Critical Habitat.

The permanent removal of 3.7 acres of suitable habitat and temporary impacts to 2.2 acres of suitable habitat for southwestern willow flycatcher would be considered a **significant impact** (**BR-6**).

Indirect Impacts

Construction activities in the vicinity of southwestern willow flycatchers and their habitat may result in indirect impacts. Indirect impacts may include increased noise, increased nighttime lighting, erosion, and debris or construction equipment in the preserved habitat. These edge effects are considered a **significant impact** (**BR-7**).

Special Status Wildlife Species (Guidelines 2, 3, and 6)

Fourteen special status wildlife species have been observed on-site and would be adversely affected by development of the Proposed Project. The species recorded on-site include Belding's orange-throated whiptail, coastal western whiptail, San Diego coast horned lizard, Coronado western skink, San Diego ringneck snake, northern red rattlesnake, western spadefoot toad, barn owl, northwestern San Diego pocket mouse, and western bluebird (San Diego County Group 2) and two-striped garter snake, turkey vulture, northern harrier, and southern California rufous-crowned sparrow (San Diego County Group 1). These species are all California Species of Special Concern except for barn owl, western bluebird, and turkey vulture and are found in the scrub and grassland areas on-site. Off-site improvements may also adversely affect an additional seven special status species: green heron, yellow warbler (Group 2); white-faced ibis; Cooper's hawk, red-shouldered hawk, white-tailed kite, and yellow-breasted chat (Group 1).

The scrub and non-native grassland vegetation provides foraging habitat for birds of prey (raptors). Development of the Proposed Project will permanently impact foraging habitat on- and off-site. These impacts include 14.5 acres of coastal sage scrub, 2.2 acres of southern mixed chaparral, 30.2 acres of pasture and 15.3 acres of non-native grassland for a total of 62.2 acres of habitat. Temporary impacts include 0.3 acre coastal sage scrub, 0.2 acre of southern mixed chaparral, and 5.0 acres of pasture and non-native grassland for a total of 5.5 acres of habitat. The overall loss of foraging habitat resulting from development of on- and off-site areas is considered a **significant impact** (**BR-8**).

Western spadefoot toads, also listed as a California Species of Special Concern, have been determined to be rare in the region by the USFWS and the County of San Diego, and have been recorded in the orchard and disced agricultural areas on the Project Site. Higher quality habitat for this species occurs off-site to the west and south of the Project Site. Nevertheless, based on the regional scarcity of this species, Proposed Project implementation would result in a **significant impact** (**BR-9**).

The 14 special status wildlife species that have been recorded on-site are found within various vegetation communities as follows:

Coastal sage scrub provides suitable habitat for Belding's orange-throated whiptail, coastal western whiptail, San Diego coast horned lizard, Coronado western skink, San Diego ringneck snake, northern red rattlesnake, southern California rufous-crowned sparrow, northern harrier, and northwestern San Diego pocket mouse.

Southern mixed chaparral provides habitat for coastal western whiptail, San Diego coast horned lizard, Coronado western skink, San Diego ringneck snake, northern red rattlesnake, southern California rufous-crowned sparrow, and northwestern San Diego pocket mouse.

Non-native grasslands and pastureland provide habitat for Belding's orange-throated whiptail, coastal western whiptail, Coronado western skink, San Diego ringneck snake, two-striped garter snake, northern harrier, turkey vulture, barn owl, white-tailed kite, and northwestern San Diego pocket mouse.

Southern arroyo willow riparian forest, willow/mule fat scrub and **southern willow scrub** provide habitat for Coronado western skink, San Diego ringneck snake, two-striped garter snake, yellow warbler, yellow breasted chat, green heron, western bluebird, white-faced ibis, white-tailed kite, red-shouldered hawk, and Cooper's hawk.

Development of the Proposed Project, including on- and off-site improvements will permanently impact 14.5 acres of coastal sage scrub, 2.2 acres of chaparral, 30.2 acres of acres of pastureland and 15.3 acres of non-native grassland for a total of 62.2 acres of on- and off-site habitat potentially supporting special status wildlife. Temporary impacts include 0.3 acre of coastal sage scrub, 0.2 acre of chaparral, and 5.0 acres of pastureland and non-native grassland for a total of 5.5 acres of on- and off-site habitat. The overall loss of this habitat supporting special status wildlife represents a **significant impact** (**BR-10**).

Impacts to non-native grassland, pastureland, southern arroyo willow riparian forest, willow/mule fat scrub, and southern willow scrub are not anticipated to substantially diminish or threaten the regional distribution of these 14 special status wildlife species.

Nesting Birds (Guideline 10)

The Project Site and off-site improvement areas provide habitat for a variety of native bird species including raptors. No nests, including raptor nests, were observed during NRC surveys conducted between 2002 and 2007; however, direct disturbance to the nests of species protected by the Migratory Bird Treaty Act would be a violation of Migratory Bird Treaty Act of 1918. Nests, eggs and individual birds of these species are also protected under Fish and Game Code Section 3503. Therefore, any disruption to protected nesting birds represents a **significant impact** (**BR-11**).

General Indirect Impacts (Guideline 7)

Lighting. External community lighting may have an effect on species near the edge of open space if it is allowed to shine into preserved areas. This represents a **significant impact** (**BR-12**).

Noise. Noise resulting from implementation of the Proposed Project includes both temporary and permanent noise sources. Proposed Project construction would create new temporary noise sources and daily traffic associated with the completion of the Proposed Project would permanently increase ambient noise levels in the vicinity of habitats potentially occupied by California gnatcatcher, least Bell's vireo, and other avian species. Based on an acoustical study completed by RECON, current noise levels adjacent to the I-15 and SR-76 exceed 60 CNEL near Horse Ranch Creek and the San Luis Rey River. These elevated levels are likely to have habituated many species to "urban" noise. Anticipated changes in noise levels must be interpreted assuming this existing condition. Future projected noise contour lines take into account attenuation from the site topography, vegetation, and proposed buildings. Based on the acoustical study it was determined that future ambient noise projected to be generated by I-15, SR-76, Horse Ranch Creek Road, and Pala Mesa Drive do not exceed 60 CNEL at the open space within the eastern side of the Project Site (See Figure 3.5-3). Impacts to wildlife residing within the open space due to traffic-related noise are **less than significant**.

Construction equipment associated with grading can be expected to generate A-weighted hourly average noise levels between 77 and 91 [dB(A) Leq] at 50 feet from the source (RECON 2009a). With flat-site and hard site conditions the average noise level at 1,800 feet would be approximately hourly 60 dB(A) Leq. Construction of off-site facilities will not use large grading equipment and is not expected to generate average noise levels that would adversely affect sensitive wildlife species.

There is no scientific or incidental evidence that suggests increased noise levels (i.e. 60 dB) is a biologically relevant threshold for altering or interrupting California gnatcatcher behavior (Awbrey 1993; 1995; Attwood and Bontrager 2001). Therefore, impacts to breeding, nesting, or foraging of California gnatcatchers birds resulting from Proposed Project construction or increased traffic is **less than significant**.

Increased noise levels may adversely affect breeding and nesting least Bell's vireo. This **significant** impact has been previously discussed and identified as **BR-5**.

Impacts related to the Regional Long-term Survival of County Group II Species (Guideline 3)

As discussed above and identified as **BR-9, BR-10, BR-11 and BR-12**, the Proposed Project would result in a **significant** impact to a County Group II species.

Core Wildlife Areas, and Golden Eagle Habitat (Guidelines of Significance 5 and 8)

The Proposed Project would not result in significant impacts to core wildlife areas or Golden Eagle habitat for the following reasons:

- No golden eagles are on site or within 4,000 feet of the site.

- No core wildlife areas are present on the Project Site, within the Proposed Project footprint, or in the vicinity of off-site improvement areas.

Riparian Habitat and Sensitive Natural Communities (Guidelines 11 through 15)

A significant impact would occur if the project would adversely affect riparian habitat and sensitive natural communities. Guidelines 11 through 15 were used to determine the significance of the project on riparian habitat and/or sensitive natural communities. Jurisdictional wetlands would utilize the same Guidelines, particularly Guideline 12, but are analyzed in their own section (below). Development of the Project Site would result in impacts (both on- and off-site) to a variety of vegetation communities as discussed below. Table 3.1-5 lists the on- and off-site impact acreage totals for all of the vegetation communities. Mitigation for direct impacts as discussed in detail below, consisting of the preservation of vegetation per the County mitigation ratios is also listed in Table 3.1-5.

Coastal Sage Scrub and Disturbed Coastal Sage Scrub (Guideline 11)

Coastal sage scrub vegetation covers approximately 87.1 acres (22.4 percent) of the Project Site, located at the edges of citrus and avocado orchards, providing habitat suitable to support California gnatcatchers. No other federal or State-listed threatened or endangered plant or wildlife species are known to use this habitat on the Project Site. The Proposed Project would permanently remove approximately 12.6 acres on-site and approximately 1.9 acres off-site, totaling impacts to 14.5 acres of coastal sage scrub. Temporary impacts include 0.2 acre on-site and 0.1 acre off-site. Removal of coastal sage scrub/disturbed coastal sage scrub is considered a **significant impact** (**BR-13**).

Southern Mixed Chaparral (Guideline 11)

Southern mixed chaparral vegetation covers approximately 19.6 acres (5.0 percent) of the Project Site. The Proposed Project would remove approximately 2.2 acres on-site. Removal of southern mixed chaparral is considered a **significant impact** (**BR-14**).

Coast Live Oak Woodland (Guideline 11)

Coast live oak woodland covers approximately 1.7 acres (0.4 percent) of the Project Site. The Proposed Project would remove approximately 0.1 acre on-site and approximately 0.2 acre off-site, for a total of 0.3 acre. Removal of coast live oak woodland is considered a **significant impact** (**BR-15**).

The project will also remove 0.4 acre of the 50-foot oak root zone on-site and 1.1 acres off-site for a total of 1.5 acres. Many of these trees are individual oak trees located within the coastal sage scrub and chaparral. These 1.5 acres have already been accounted for with impacts to coastal sage scrub, chaparral, and disturbed impacts.

Non-native Grassland (Guideline 11)

Non-native (annual) grassland vegetation covers approximately 31.9 acres (8.2 percent) of the Project Site. The Proposed Project would remove approximately 9.9 acres on-site and approximately 5.4 acres off-site for a total of 15.3 acres. Temporary impacts include less than 0.1 acre onsite and 2.1 acres off-site. Removal of non-native grassland is considered a **significant impact** (**BR-16**).

Agriculture (Guideline 11)

Agricultural areas cover approximately 209.9 acres (53.9 percent) of the Project Site. The Proposed Project would remove approximately 160.6 acres on-site and approximately 3.8 acres off-site of for a total of 164.4 acres. Temporary impacts include 0.3 acre on-site and 1.4 acres off-site. Biological impacts related to the removal of agricultural lands would be **less than significant**.

Non-native Trees (Guideline 11)

Non-native trees cover approximately 8.3 acres (2.1 percent) of the Project Site. The Proposed Project would remove 8.1 acres on-site and 1.0 acres off-site for a total of 9.1 acres. Temporary impacts would include 0.2 acre off-site. Impacts associated with the removal of non-native trees would be **less than significant**.

Open Water (Guideline 11)

The man-made open water ponds cover approximately 0.7 acre of the Project Site. The Proposed Project would remove the 0.7 acre on-site and no acres off-site. The vegetation surrounding these open water features is not comprised of a distinct vegetation type or plant community and is not delineated as jurisdictional wetlands (GLA 2007). Impacts associated with the removal of these open water ponds would be **less than significant**.

Pastureland (Guideline 11)

Pastureland areas cover approximately 1.5 acres (0.4 percent) of the Project Site. Proposed development would result in the removal of approximately 1.5 acres on-site and 28.7 acres off-site for a total of 30.2 acres. Temporary impacts include 2.8 acres off-site. The pasture land is composed of non-native grasses and has a similar habitat value as non-native grassland. Removal of this vegetation community is considered a **significant impact** (**BR-17**).

Disturbed and Developed

The disturbed and developed areas cover approximately 28.7 acres of the Project Site. The Proposed Project would remove approximately 22.2 acres on-site, and 19.5 acres off-site. The Proposed Project includes 5.9 miles of multi-use trails (hiking and horseback riding). The trail system will utilize existing dirt roads located within the proposed natural and agricultural open space. Temporary impacts include less than 0.1 acre on-site and 0.3 acre off-site. Impacts associated with removal of these disturbed areas would be **less than significant**.

Wetland Vegetation (Guideline 12)

On-site wetland vegetation includes 0.1 acre of isolated willow/mule fat scrub. This area exists due to runoff from adjacent agricultural operations and would cease to be a wetland if these agricultural activities would cease; however, the Proposed Project would remove all of the willow/mule fat scrub. Off-site improvement areas would include permanent impacts to 0.95 acre of southern willow scrub, 2.77 acres of southern arroyo willow riparian forest and 0.32 acre of freshwater marsh. These impacts are a result of

construction/improvement of Pala Mesa Drive, grading along the edge of the Project Site, and construction of Horse Ranch Creek Road and would result in permanent impacts to the riparian vegetation surrounding Horse Ranch Creek. Total on- and off-site permanent impacts to wetland vegetation would be 4.14 acres.

Temporary impacts due to wetland vegetation occur off-site due to Pala Mesa Drive, Horse Ranch Creek Road, and grading along the edge of the Project Site would include 0.02 acre of southern willow scrub and 2.13 acres of southern arroyo willow riparian forest. No temporary impacts to on-site wetland vegetation were noted.

Permanent on and off-site impacts to 4.14 acres and temporary on and off-site impacts to 2.15 acres of of riparian/wetland vegetation (willow/mule fat scrub, southern willow scrub, southern arroyo willow riparian forest and freshwater marsh) is considered a **significant impact** (**BR-18**).

The riparian habitat located off-site adjacent to the southwestern portion receives runoff from Horse Ranch Creek (the area to the north) and the area to the east. The entire watershed tributary to the riparian area is approximately 12 square miles. The Horse Ranch Creek watershed consists of natural vegetation, scattered low-density residences, and a golf course along Pala Creek with medium- to high-density residences around the vicinity of the golf course (Pala Mesa Resort). In the pre-project condition, the on-site portion, or the area to the east of the riparian area, is approximately 4 percent of the entire watershed that is tributary to the riparian area. It is important to note that the northern portion of the project does not immediately convey flows to the riparian area. Due to irrigation runoff, severe erosion has occurred and the current drainage pattern conveys flows associated with this northern area immediately west to the low-flow portion of Horse Ranch Creek. These combined flows are then conveyed southerly towards the riparian area.

There are no anticipated impacts to off-site riparian habitat or the species this habitat supports from a loss of agricultural run-off from the Project Site. The Proposed Project has been designed to maintain pre-project drainage patterns and mitigate for hydromodification (erosion/degradation). The total area of the drainage basins in the post project condition, tributary to the riparian area, is 292.7 acres (approximately 4 percent of the entire Horse Ranch Creek watershed), which is very similar to that of the pre-project condition. The watershed associated with Horse Ranch Creek (the area to the north) that is tributary to the riparian area in the pre-project condition will remain unchanged in the post project condition as a result of the Proposed Project. Additionally, in the post project condition, agricultural groves will be preserved and irrigation runoff will be captured and conveyed through the Proposed Project and outfall at similar locations when compared to the pre-project drainage patterns. This runoff will be conveyed to the riparian area and then confluence with the Horse Ranch Creek flows. The on-site portion of the Proposed Project will convey flows to the riparian area through a combination of urban runoff and the irrigation runoff associated with the groves. For these reasons, the riparian area will continue to receive runoff in the post-project condition.

These design features would ensure that areas downstream of the Project Site which currently receive runoff during storm events would continue to do so once the Proposed Project is built. The Proposed Project design includes several detention facilities strategically located throughout the Proposed Project to maintain connections to existing off-site drainage patterns. It is anticipated that the storm run-off during the wet season

and urban run-off during the dry season would be captured in the detention basins and released at controlled flow rates and durations into these existing drainage patterns. Riparian habitat downstream of the Project Site would still be maintained by these flows much like the pre-project condition without increasing erosion and degradation. Thus, impacts would be **less than significant**.

Impacts to Sensitive Habitat due to Use of Groundwater (Guidelines 13)

The Proposed Project would not draw down the groundwater table to the detriment of groundwater-dependent habitat. Recycled water will be the primary source for irrigating the retained on-site groves; however, groundwater may be utilized in the event of a dry season. This will not result in an increase in the demand for groundwater above existing consumption levels and impacts will be **less than significant**.

Impacts due to Increase Human Access (Guideline 14)

The Proposed Project has been designed to limit human and domestic animal access to sensitive habitats. As identified in the Trails Plan, public trails in the proposed open space will use existing dirt roads and trails. Any existing trails/dirt roads not used as part of the trail system will be closed and restored to natural habitat. A paved fire access road, extending northeasterly from Street E to Rice Canyon Road, will provide alternative access for emergency vehicles. Signs and/or fences will be used to deter access into sensitive habitats. Fences or walls will separate residential areas from the proposed open space limiting access by the public and domestic animals. No invasive plant species will be used in the landscaping palette. For these reasons, impacts to sensitive habitat associated with increased human access, or competition from domestic, pest or exotic species is **less than significant**.

Impacts due to Failure to Include Adequate Wetland Buffers (Guideline 15)

A 100-foot wetland buffer is designed around the western portion of the Project Site adjacent to willow riparian forest vegetation of Horse Ranch Creek. This proposed open space is intended to provide protection to the existing wetland area located on the adjacent Campus Park project site. The width of the buffer is adequate to protect the riparian forest that has been heavily grazed by cattle. Therefore, impacts to sensitive habitat due to inadequate wetland buffers are **less than significant.**

Jurisdictional Waters including Wetlands (Guidelines 11 through 15)

A significant impact would occur if the project would adversely affects jurisdictional wetlands and waterways

On-site Impacts

Jurisdictional delineations were conducted on- and off-site. The Jurisdictional Delineations are included in Appendix F-2 of the EIR. The on-site development of the Proposed Project would permanently remove 0.83 acre of ACOE jurisdictional waters, of which 0.14 acre are jurisdictional wetlands as defined by the ACOE; 0.06 acre are ACOE isolated waters,; and 0.69 acre is non-wetland waters. The Proposed Project would permanently remove 0.93 acre of CDFG jurisdictional waters, of which 0.34 acre was delineated as wetlands and 0.59 acre as non-wetland waters. Of the 0.93-acre

maximum jurisdictional area, 0.1 acre is included with the on-site impacts to wetland vegetation (identified as Impact BR-18). The remaining 0.83 acre is a separate impact to unvegetated wetlands or non-wetland drainages. No temporary on-site impacts were identified.

There are no County RPO wetlands on-site. Although the 0.14 acre drainage located in the central portion of the Project Site, as shown on Figure 3.1-7b, supports several riparian vegetation species and hydric soils, this drainage is not considered an RPO wetland. Section 86.602(q)(2)(bb) of the RPO states that lands that have been disturbed by past legal actions, have negligible biologic function and value, and that do not support a substantial or locally important population of wetland dependent species are not considered to be "wetlands." The wetland attributes in this drainage are the result of legal agricultural irrigation runoff, the biological functions and values are negligible, and the area does not support any substantial or locally important wetland dependent species.

A 100-foot wetland buffer is designed around the western portion of the site adjacent to willow riparian forest vegetation of Horse Ranch Creek. As stated above, this proposed open space is intended to provide protection to the existing wetland area located on the adjacent Campus Park project site. A summary of the on-site jurisdictional wetland impacts is provided in Table 3.1-6.

Off-Site Impacts

Off-site improvements associated with the extension of Pala Mesa Drive, and the construction of Horse Ranch Creek Road, would result in permanent impacts to jurisdictional drainages and wetlands (GLA 2009). The delineation report for on-site development includes a portion of Horse Ranch Creek Road, which, since the report, has been redesigned and is now considered off-site. For consistency between the GLA report and current impact analysis, Horse Ranch Creek Road impacts are identified separately from other off-site impacts. A summary of the off-site jurisdictional wetland impacts is provided in Table 3.1-6.

Horse Ranch Creek Road Improvements

Construction of the portion of Horse Ranch Creek Road from the southern terminus of Pankey Road to the western boundary of the Project Site will impact 0.15 acre of ACOE jurisdictional wetlands and less than 0.01 ACOE waters. Of the 0.15 acre of impacts to ACOE jurisdictional wetlands: 0.04 acre is a temporary impact and 0.11 acre is a permanent impact.

Horse Ranch Creek Road impacts to CDFG jurisdiction include 0.15 acre of vegetated riparian habitat and less than 0.01 acre of unvegetated streambed. Of the 0.15 acre of impacts to CDFG jurisdictional wetlands, 0.04 acre is a temporary impact and 0.11 acre is a permanent impact.

The impacts to RPO wetlands associated with Horse Ranch Creek Road include 0.15 acre of which 0.04 acre are temporary and 0.11 acre are permanent.

Remaining Off-site Improvements (excluding Horse Ranch Creek Road)

The remaining off-site improvements for Pala Mesa Drive would temporarily impact 2.0 acres of ACOE jurisdiction jurisdictional wetlands and less than 0.01 acre of ACOE waters and permanently impact 2.18 acres ACOE wetlands and less than 0.01 acre of ACOE waters. These off-site improvements would temporarily impact 2.13 acres of CDFG jurisdiction vegetated riparian habitat and less than 0.01 acre of unvegetated streambed and permanently impact 2.18 acres of CDFG vegetated riparian habitat and less than 0.01 acre of unvegetated streambed. Permanent linear-foot impacts under ACOE and CDFG jurisdiction total 2,246 linear feet.

Summary of Impacts to Jurisdictional Waters

In summary, permanent on-site impacts to jurisdictional areas total a maximum of 0.93 acre. Permanent off-site impacts total 2.29 acres, and temporary off-site impacts total 2.04 (83,200 square feet).

On- and off-site permanent impacts to jurisdictional wetlands totaling 3.22 acres would be considered a **significant** impact (**BR-19**). Temporary impacts to jurisdictional wetlands off-site totaling 2.04 acres impacts would also be considered a **significant** impact (**BR-20**).

Wildlife Movement (Guidelines 16 through 21)

A significant impact would occur if the project would adversely affect wildlife movement.

Three wildlife movement corridors on or near the Project Site are discussed in Section 3.1.1 above and shown in Figure 3.1-6.

A major portion of Corridor 1 will be preserved in natural open space, allowing for continued use for wildlife movement. A proposed fire access road paved and varying in width from 20' - 24' feet will extend northeasterly from Street E to Rice Canyon Road and will partially follow existing dirt roads that cross Corridor 1 in the northeastern corner of the Project Site. The elevation of the road ranges from approximately 520 at the cul-de-sac to a peak elevation of 740 at the ridge with manufactured slopes, some exceeding 60 feet in height. The fire access road will not create a barrier to wildlife movement as it will not have fences or walls along its edge and will not be elevated significantly above the natural contours of the hillside. Wildlife will be able to move freely across the road to adjacent vegetation to the north and south.

Similarly, the Proposed Project would not adversely affect Corridors 2 and 3. Off-site widening and realignment of SR-76 permitted by other applicants is adjacent to Corridor 2 along the San Luis Rey River. The SR-76 improvements would not result in any physical or visual obstruction to wildlife movement along Corridor 2. No off-site improvements would occur near Corridor 3 in Rice Canyon located east of the project.

As discussed in Section 3.1.1 above, the riparian habitat along Horse Ranch Creek is a stepping stone or habitat island for riparian and migratory birds and a local path for small animal movement, but is not considered a movement corridor. No large wildlife species such as deer are expected to use this drainage due to the extensive barb wire fencing to the north and south and road barriers such as I-15, Horse Ranch Creek Road, and SR-76. The construction of Pala Mesa Drive to the west of the Project Site is south and west of the main drainage of Horse Ranch Creek. The proposed location of the road will not

obstruct local small wildlife species travel within the riparian vegetation, prevent access to water sources or foraging habitat, or prevent migratory birds from utilizing the area.

In summary, development of the Project Site and associated off-site improvement areas would not impact regional wildlife movement based on the following:

- The Proposed Project would not prevent wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction. The Proposed Project has been designed to avoid the three mapped wildlife movement corridors in the area. Construction of Pala Mesa Drive will occur south of the main drainage of Horse Ranch Creek to avoid local wildlife and migratory bird movement (Guideline 16).

- The Proposed Project would avoid substantial impacts to areas that are used for wildlife movement through the region. Impacts near Corridor 1 include installation of water tanks and improvements to access roads that are currently adjacent to the corridor. These improvements would not substantially change the structure of the corridor from its current state (Guideline 17). The Proposed Project would not create artificial wildlife corridors. Corridor 2 would not be altered or rerouted. Development of the Project Site would not adversely affect wildlife movement within any movement areas in upland habitat (e.g., ridgelines) north or east of the property (Corridor 1). Proposed impacts for a water tank site and access road in the eastern portion of the site are not expected to significantly affect the path of Corridor 1. There is currently a large tank and access road in this proposed impact area. New water tanks will be placed where a tank is currently present on the top of the ridgeline above the path of wildlife movement. Large wildlife species such as coyotes have been observed using the existing access road and eastern slope that provide the least path of resistance from this area to Monserate Mountain to the north. Although additional tanks will be placed at the highest point on the ridge in the same area as the existing tank, it should not affect the wildlife movement because they prefer the road and slopes below the existing tank. A portion of the access road south of the tanks will be improved, but will occupy the same approximate area as the existing road. Installation of the water tanks and routine maintenance would be brief and infrequent and are not anticipated to affect wildlife movement near the tank site. These improvements will not cause a barrier to wildlife movement. Past experience has also shown that such limited facilities will not significantly change the visual features of the area and should not affect the movement of large wildlife species. Wildlife would be able to continue using Corridor 1 without altering their current path of travel along the access roads and eastern slope (Guideline 18).

- The Proposed Project has been designed to reduce noise and nighttime lighting to levels that will not significantly impact wildlife behavior. Lighting will be directed away from the surrounding habitat. Noise will not be sustained at levels that would disrupt wildlife movement during construction or general traffic conditions (Guideline 19).

- The Proposed Project would not restrict the width of any wildlife corridors through removal of vegetation or barrier. The Proposed Project would remove a small amount of vegetation around the existing tank, but this is on a raised peak that is not part of the path for wildlife movement. The tank site would remain as a tank site and will not create additional barriers to wildlife movement (Guideline 20).

- The tank site and access roads near Corridor 1 would not be altered significantly and therefore would not change the visual continuity of the corridor (Guideline 21).

Overall, impacts to wildlife movement corridors would be **less than significant**.

Local Policies, Ordinances, and Adopted Plans (Guidelines 22 through 33)

A significant impact would occur if the project would affect resources protected by local ordinances and NCCP.

NCCP (Guidelines 22, 23, 25, 28 and 31)

Based on the allowed "take" of coastal sage scrub vegetation within the County of San Diego under the NCCP 4(d) Rule (approximately 11,000 acres) the anticipated impacts to 14.5 acres of mature and disturbed coastal sage scrub on-site and off-site would not exceed the five percent allowance. Proposed Project impacts would be **less than significant** (Guideline 22). The Proposed Project is consistent with the proposed subregional NCCP. The project design conforms to the proposed "take authorized" and "preserve" areas developed for the North County MSCP, as discussed in Section 3.1.1 and shown on Figure 3.1-2. Proposed Project impacts would be **less than significant** (Guideline 23).

Impacts to coastal sage scrub covered under the NCCP Process Guidelines are discussed above and identified as **BR-13**. The Proposed Project minimizes impacts to coastal sage scrub, preserving 85.5 percent on-site. Proposed Project impacts would be **less than significant** (Guideline 25).

The Proposed Project would not preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub NCCP Guidelines. As discussed above, Corridors 1, 2, and 3 will not be significantly impacted by the Proposed Project, and impacts would be **less than significant** (Guideline 28).

The Proposed Project would not reduce the likelihood of survival and recovery of listed species in the wild. Species-specific mitigation is proposed for arroyo toad, California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher. Any required permits to take endangered or threatened species will be obtained prior to grading. Project impacts would be **less than significant** (Guideline 31).

<u>Habitat Loss Permit (HLP (Guideline 25)</u>

The Proposed Project is processing a Section 7 take permit with USFWS. However, should the draft North County MSCP be adopted prior to the development of the Proposed Project, the County would implement the 4(d) Rule and NCCP Guidelines through the HLP process. Projects with coastal sage scrub, both occupied and unoccupied, can receive take authorization by obtaining an HLP, eliminating the need for a Section 7 consultation or Habitat Conservation Plan. The HLP is typically granted prior to grading, and requires that certain findings be made. These findings and the Proposed Project's compliance, are summarized below, and would be expanded and finalized by County staff when the actual permit is granted:

- The habitat loss does not exceed the five percent guideline: As of late September 2007, the County's allowed loss was roughly 1,800 acres of coastal sage scrub. The Proposed Project will result in the permanent loss of 14.5 acres of coastal sage scrub and temporary loss of 0.3 acres. Impacts would not be significant.

- The habitat loss will not preclude connectivity between areas of high habitat values: Proposed Project open space is directly connected to planned open space to the north and east. Impacts would not be significant.

- The habitat loss will not preclude or prevent the preparation of the subregional NCCP: The Proposed Project was planned in conjunction with the proposed North County MSCP. That proposed plan shows this property as "Take Authorized" and "Preserve." The Proposed Project is consistent with the proposed MSCP map. Impacts would not be significant.

- The habitat loss has been minimized and mitigated to the maximum extent practicable in accordance with Section 4.3 of the NCCP Process Guidelines: There are 87.1 acres of coastal sage scrub on-site. The Proposed Project will permanently remove approximately 14.5 percent (12.6 acres). An additional 1.9 acres of coastal sage scrub will be affected off-site due to the construction of necessary public infrastructure. Temporary impacts include 0.2 acre on-site and 0.1 acre off-site. Loss of coastal sage scrub has been avoided to the maximum extent practicable. Mitigation for permanent impacts to coastal sage scrub vegetation communities will be provided on-site at a ratio of 2:1. Temporary impacts to coastal sage scrub would be mitigated through revegetation with the same species found within the impact area and is therefore not considered a loss of habitat. Proposed Project impacts would be significant and mitigated as described in Section 3.1.5.

- The habitat loss will not appreciably reduce the likelihood of the survival and recovery of listed species in the wild: The proposed loss of less than 15 acres of possible habitat for the California gnatcatcher will not affect species survival over the long term. Impacts will be mitigated by the preservation of habitat that is located within the proposed PAMA for the North County MSCP. Impacts would not be significant.

- The habitat loss is incidental to otherwise lawful activities: The Proposed Project must be approved by the San Diego County Board of Supervisors, and by definition is a lawful activity.

Should the Proposed Project be required to conform to the HLP process, impacts associated with the take of coastal sage scrub are **less than significant**.

Resource Protection Ordinance (Guideline 24)

The Proposed Project will impact the following habitats which are considered sensitive habitat lands under the RPO: 14.5 acres of California gnatcatcher coastal sage scrub habitat of which 13.5 acres are considered occupied.

The small northwest wetland area is a man-made drainage fed by agricultural runoff and is not an RPO wetland. Wetlands within off-site improvement areas for Pala Mesa Drive

and Horse Ranch Creek Road are considered RPO wetlands; however, these off-site roadway improvements would occur through properties that have a previously approved Specific Plan. Although, the Specific Plan associated with these properties has been exempted from the strict avoidance of impact provisions of the RPO per Section 86.605(b).The Proposed Project is in conformance with the RPO and impacts associated with failure to adhere to the ordinance are **less than significant**.

A 100-foot wetland buffer is proposed along the riparian woodland west of the southwestern boundary of the Project Site, adjacent to existing off-site wetlands.

MSCP (Guidelines 27, 29 and 30)

The Project Site is not within the adopted MSCP and is not subject to the BMO; however, the Proposed Project is designed to be in compliance with the proposed North County MSCP. The Proposed Project does not impact any MSCP narrow endemic plant species as defined in the existing MSCP. Proposed Project impacts to California gnatcatchers, least Bell's vireo, southwest willow flycatcher, and arroyo toads are considered a **significant impact** as identified by **BR-1, BR-2, BR-3, BR-4, BR-5, BR-6,** and **BR-7.**

Migratory Bird Treaty Act (Guideline 32)

The Project Site and off-site improvement areas provide habitat for a variety of native bird species including raptors. No nests, including raptor nests, were observed during surveys. Direct disturbance to the nests of species protected by the Migratory Bird Treaty Act would be a violation of Migratory Bird Treaty Act of 1918. Nests, eggs, and birds of these species are also protected under Fish and Game Code Section 3503. Disturbance to these nesting birds is considered a **significant impact** as identified by **BR-11.**

Other Local Ordinances (Guidelines 26)

There are no biological resources on the Project Site protected by local ordinances that are not addressed elsewhere in this report. There are no applicable management plans covering the Proposed Project area. Therefore, impacts associated with conformance with other goals, policies or planning efforts are **less than significant**.

Impact to Eagles (Guideline 33)

The Proposed Project would not result in the take of eagles, eagle eggs or any part of an eagle. No eagles were observed in the vicinity of the site. Impacts to eagles would be **less than significant**.

3.1.4 Cumulative Impact Analysis

The area encompassing the Rainbow Planning Area, Pala-Pauma Planning Area, Fallbrook Planning Area, Bonsall Planning Area, and the Valley Center Planning Area was used as the study area for the cumulative impacts analysis. The area represents a well-defined integrated ecological unit covering 195,715 acres and includes 163,000 acres of the central portion of the San Luis Rey River watershed and home ranges and

habitats of sensitive species similar to those found on the Project Site. The Project Site is roughly in the middle of this cumulative impact study area.

The study area includes both upland (coastal sage scrub, grassland, and chaparral) and lowland (wetlands, oak woodland, and riparian areas) ecoregions. The upland habitat within the study area is within the Northern Foothills and Northern Valley Humid Temperate ecological region. This area from Fallbrook to Bonsall to Lilac to Pala is large enough to include the range of resident upland species and large enough to conduct an adequate cumulative assessment. The lowland habitat includes sensitive riparian species habitat along the San Luis Rey River watershed from Bonsall to Pala. The cumulative projects used in this analysis were obtained using county-wide parcel data joined with tabular data from a discretionary projects file from SanGIS that is updated quarterly. The projects found within the cumulative study area are shown on Figure 3.1-8 and listed in Table 3.1-7.

Special Status Species

Several proposed projects in the study area have the potential to directly or indirectly impact Designated Critical Habitat, Excluded Essential Habitat or habitat otherwise occupied by arroyo toad, California gnatcatcher and least Bell's vireo according to Guidelines 1 and 4. Impacts that would be caused by projects in the study area would require a permit through either the Section 10 or Section 7 processes under the Federal Endangered Species Act, as well as other state and local permits. Mitigation would be provided to compensate for impacts. Habitat for these species is also proposed for preservation throughout the cumulative impacts study area through several NCCP/HCP programs which, again, will ensure that impacts are avoided and/or mitigation provided such that long term species viability is ensured. Therefore, potential cumulative impacts to these species would be **less than significant**.

Other special status species identified as occurring or likely to occur on the Project Site, in and around off-site improvement areas, and in the region include Belding's orange-throated whiptail, coastal western whiptail, San Diego coast horned lizard, Coronado western skink, San Diego ringneck snake, northern red rattlesnake, western spadefoot toad, northwestern San Diego pocket mouse, two-striped garter snake, northern harrier, southern California rufous-crowned sparrow, yellow warbler, yellow breasted chat, white-faced ibis, western bluebird, green heron, turkey vulture, white-tailed kite, red-shouldered hawk, barn owl, and Cooper's hawk (Guidelines 2 and 3). While these species are considered "Species of Special Concern" by the CDFG, most of these species are relatively common in appropriate habitat but are either found in one or a few specific habitats, or are locally distributed subspecies of a more widespread species. The Project Site provides suitable foraging, sheltering, or breeding habitat for these species. The majority of the upland habitat, such as coastal sage scrub, chaparral, and grassland, will be preserved on the Project Site to provide for the local and regional conservation needs of these species.

Under current policies, any potential impacts caused by projects in the regional study area would require mitigation under CEQA, generally through the preservation of other open space with appropriate habitat attributes for the sensitive species being affected. Should the draft North County MSCP be adopted, preservation of habitat for these species would be incorporated into regional planning and cumulative impacts to these species would not be significant. Without the adoption of the draft North County MSCP

impacts to these Species of Special Concern would be significant. Site design and mitigation of impacts to habitat generally at appropriate mitigation ratios is expected to ensure the long term survival of these species and reduce these impacts to **less than significant**.

Riparian Habitat and Sensitive Natural Communities

The Proposed Project will directly impact coastal sage scrub, oak woodlands, non-native grassland (including pasture), southern arroyo willow riparian forest, southern willow scrub, willow/mule fat scrub, freshwater marsh and chaparral. Within the cumulative study area, 85 projects are known to support one or more of these habitat types. Table 3.1-7 provides the impact analysis associated with the individual vegetative communities supported by each cumulative project. Impacts to sensitive vegetation communities would require mitigation on a project-by-project basis including providing open space to protect these vegetation communities; mitigation measures (discussed in detail below) proposed by the Proposed Project will be sufficient to mitigate the Proposed Project's minimal contribution to these impacts. Because the Proposed Project will not have a cumulatively considerable impact to riparian habitats and other sensitive natural communities, cumulative impacts are **less than significant**.

Jurisdictional Waters including Wetlands

The central portion of the San Luis Rey River watershed was analyzed for impacts to jurisdictional wetlands associated with all known projects. Jurisdictional wetlands have the potential to be removed by proposed projects in the study area. The majority of these potential impacts are likely to be avoided through compliance with the RPO. Remaining impacts will require mitigation through the appropriate agencies on a project-by-project basis. Permanent impacts to 3.12 acres of ACOE wetlands, 3.22 acres of CDFG vegetated riparian habitat, and 2.04 acres of RPO wetlands will be contributed by the Proposed Project. Mitigation measures (discussed in detail below) proposed by the Proposed Project will be sufficient to mitigate the Proposed Project's minimal contribution to regional impacts. Additionally, impacts to jurisdictional waters are regulated by the Federal CWA and the CDFG Code, both of which require permits and mitigation measures. Because the Proposed Project will not have a cumulatively considerable impact to jurisdictional wetlands, and mitigation will be required under local, state and federal regulations, cumulative impacts to jurisdictional wetlands and waters are **less than significant**.

Wildlife Movement

At a regional scale, wildlife movement and core use areas in southern California have been analyzed by the South Coast Wildlands (SCW), a non-profit group that works collaboratively with state and federal agencies to devise plans to maintain natural habitat connections between core habitat areas. SCW has identified one large movement corridor between protected areas that enters the northern portion of the cumulative study area. The majority of this corridor is on public land, and though it has some potential to be impacted without future preservation, there is currently limited development proposed along the southern edge of this corridor in the cumulative study area. The Proposed Project is not located within this large movement corridor. Therefore, cumulative impacts attributable to the proposed project are **less than significant**.

Local Policies, Ordinances, and Adopted Plans

The cumulative impact study area was analyzed with the Proposed Project to determine the significance of cumulative impacts under local policies, ordinances and adopted plans as well as the draft North County MSCP.

RPO

The Proposed Project along with other projects in the cumulative study area will contribute to cumulative impacts to RPO sensitive habitat lands. Cumulative impacts on sensitive habitat are discussed above under "Riparian Habitat and Sensitive Natural Communities," The cumulative impacts on wildlife corridors or RPO wetlands as discussed above under "Wildlife Movement" and "Jurisdictional Wetlands and Waterways."

NCCP

Preservation of large blocks of habitat is a key component of the state Southern California Coastal Sage Scrub NCCP. Coastal sage scrub covers a large area throughout the cumulative study area. Several projects within the cumulative impact study area have the potential to impact coastal sage scrub habitats. The preservation of 85.5 percent of the existing on-site coastal sage scrub in the proposed open space complies with this NCCP. The loss of 12.6 acres on-site and an additional 1.9 acres off-site will not exceed the County's five percent threshold.

MSCP

The County's MSCP serves as a Subregional and Subarea NCCP covering some of the unincorporated lands in the southern portion of the County. The impacts to coastal sage scrub have been minimized and mitigated by preserving the larger portion of the scrub as open space and connected to a larger block of coastal sage scrub habitat. The Proposed Project's open space design is consistent with the proposed hardline preserve in the draft North County MSCP. Since the Proposed Project has been designed to contribute 115.6 acres to the regional preserve system, for inclusion in the North County MSCP, cumulative impacts to this proposed plan would be **less than significant**.

3.1.5 Mitigation Measures Proposed to Minimize the Significant Effects

Development of the Project Site would result in impacts (both on- and off-site) to a variety of vegetation communities. The mitigation listed below for direct impacts would consist of the preservation of vegetation per the County mitigation ratios. The Conceptual Resource Management Plan and Conceptual Wetland Mitigation Plan provide detailed direction for how the implementation of the on-site open space and wetland mitigation will be accomplished.

Special Status Species

M-BR-1 To mitigate indirect construction-related impacts on the arroyo toad, the owner/permittee shall, using a qualified biologist, implement the following mitigation measure(s):

a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area and identify locations for placement of protective fencing. The project biologist shall continue to monitor grading activities.

b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downs lope side of disturbed areas, to prevent soil loss.

c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist.

d. A storm drain system and detention basins shall be constructed to restrict excess water flow from proposed roads and structures associated with the Meadowood project. Filter devices shall be installed at the appropriate points to ensure that run-off is cleansed before reaching the basins. All water-catchment features shall be located above graded and natural slopes.

e. Nighttime lighting shall be shielded and directed away from riparian and upland habitat adjacent to the development.

M-BR-2 Permanent direct impacts to a total of 14.5 acres on- and off-site, of suitable habitat for California gnatcatcher shall be mitigated on-site at a ratio of 2:1 for a total of 29.0 acres. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to gnatcatcher habitat by 0.7 acre and mitigation by 1.4 acres for a total mitigation requirement of 27.6 acres. A total of 74.5 acres of habitat shall be preserved in the proposed on-site open space easement. The mitigation land will also cover impacts to designated Critical Habitat for the California gnatcatcher as detailed in the Conceptual Resource Management Plan (Appendix F-3).

Temporary direct impacts to a total of 0.3 acre on- and off-site shall be mitigated through revegetation of the coastal sage scrub with the same species present within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

Take authorization of the California gnatcatcher and removal of coastal sage scrub habitat shall be obtained through the Section 7 Consultation with the USFWS or through the County Habitat Loss Permit Ordinance and compliance with the Coastal Sage Scrub NCCP.

M-BR-3a Indirect impacts on the California gnatcatcher shall be mitigated by the following measures to be implemented by the project applicant:

a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area.

b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downslope side of disturbed areas, to prevent soil loss.

c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist.

d. Nighttime lighting shall be shielded and directed away from coastal sage scrub habitat adjacent to the development. This shall be implemented through a Lighting Plan.

e. Permanent fencing and signage shall be placed along the trails and/or between the development/open space interface in order to be compliant with County standards and as shown on the Landscape Concept Plans.

M-BR-3b Direct impacts on the California gnatcatcher shall be mitigated by the following measures to be implemented by the project applicant:

a. Direct impacts to California gnatcatcher shall be mitigated in accordance with M-BR-2.

b. A qualified biologist shall supervise the placement of orange construction fencing or equivalent along the boundary of the development area as shown on the approved grading plans. The location and design for fencing will be recommended and subsequently installed by a qualified biologist.

c. To avoid impacts to nesting gnatcatchers, vegetation clearing and grubbing within 500 feet of coastal sage scrub shall no occur in potential nesting habitat during the breeding season from February 15 through August 31. If project construction (other than clearing and grubbing of sensitive habitats) is necessary adjacent to preserved on- and off-site habitat during the gnatcatcher breeding (or sooner if a Wildlife Agency-approved biologist demonstrates to the satisfaction of the Wildlife Agencies that all nesting is complete), a Wildlife Agency-approved biologist shall conduct pre-construction surveys in the adjacent habitat to determine the location of any active gnatcatcher

nests in the area. The survey shall begin no more than three days prior to the beginning of construction activities. The Agencies shall be notified if any nesting birds are found. During construction, no activity shall occur within 500 ft (152.4 m) of active gnatcatcher nesting territories, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. Exceptions to this measure includes cases where surveys confirm that adjacent habitat is not occupied or where noise studies confirm that construction noise levels are below 60 dBA hourly Leq along the edge of adjacent habitat. If construction activities are not completed prior to the breeding season and noise levels exceed this threshold, noise barriers shall be erected to reduce noise impacts to occupied habitat to below 60 dBA hourly Leq and/or the culpable activities will be suspended until the end of the breeding season.

M-BR-4 Impacts to least Bell's vireo habitat shall be mitigated at a ratio of 3:1 for a total of 11.1 acres to be purchased off-site. This mitigation shall be incorporated into the Section 7 consultation. The habitat will be a southern willow scrub or willow riparian forest habitat which can be occupied by least Bell's vireo as detailed in the Conceptual Wetlands Mitigation Plan. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to southwestern willow flycatcher habitat by 0.7 acres and mitigation by 2.1 acres for a total mitigation requirement of 9.1 acres. This mitigation shall be incorporated into the Section 7 consultation.

Temporary direct impacts to 2.2 acres shall be mitigated through revegetation of the riparian habitat with the same species present within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

M-BR-5a Indirect impacts to least Bell's vireo shall be mitigated by the following measures to be implemented by the project applicant:

a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area.

b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downslope side of disturbed areas, to prevent soil loss.

c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist.

d. Nighttime lighting shall be shielded and directed away from riparian habitat adjacent to the development. This shall be implemented through a Lighting Plan.

M-BR-5b Direct impacts to least Bell's vireo shall be mitigated by the following measures to be implemented by the project applicant:

a. Direct impacts to least Bell's vireo habitat shall be mitigated in accordance with M-BR-4.

b. A qualified biologist shall supervise the placement of orange construction fencing or equivalent along the boundary of the development area as shown on the approved grading plans. The location and design for fencing will be recommended and subsequently installed by a qualified biologist.

c. To avoid impacts to nesting vireos, vegetation clearing and grubbing shall not occur within 500 feet of riparian habitat during the breeding season from March 15 to September 15. If project construction (other than clearing and grubbing of sensitive habitats) is necessary adjacent to preserved on- and off-site habitat during the vireo breeding (or sooner if a Wildlife Agency-approved biologist demonstrates to the satisfaction of the Wildlife Agencies that all nesting is complete), a Wildlife Agency-approved biologist shall conduct pre-construction surveys in the adjacent habitat to determine the location of any active vireo nests in the area. The survey shall begin not more than three days prior to the beginning of construction activities. The Agencies shall be notified if any nesting vireos are found. During construction, no activity shall occur within 500 ft (152.4 m) of active vireo nesting territories, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. Exceptions to this measure includes cases where surveys confirm that adjacent habitat is not occupied or where noise studies confirm that construction noise levels are below 60 dBA hourly Leq along the edge of adjacent habitat. If construction activities are not completed prior to the breeding season and noise levels exceed this threshold, noise barriers shall be erected to reduce noise impacts to occupied habitat to below 60 dBA hourly Leq and/or the culpable activities will be suspended.

M-BR-6 Impacts to southwestern willow flycatcher habitat shall be mitigated at a ratio of 3:1 for a total of 11.1 acres to be purchased off-site as detailed in the Conceptual Wetlands Mitigation Plan (Appendix F-4). If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to southwestern willow flycatcher habitat by 0.7 acres and mitigation by 2.1 acres for a total mitigation requirement of 9.1 acres. This mitigation shall be incorporated into the Section 7 consultation.

Temporary direct impacts to 2.2 acres of suitable habitat shall be mitigated through revegetation of the riparian habitat with the same

species present within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

M-BR-7a Indirect impacts on the southwestern willow flycatcher shall be mitigated by the following measures to be implemented by the project applicant:

a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area.

b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downslope side of disturbed areas, to prevent soil loss.

c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist.

d. Nighttime lighting shall be shielded and directed away from riparian habitat adjacent to the development. This shall be implemented through a Lighting Plan.

M-BR-7b Direct impacts on the southwestern willow flycatcher shall be mitigated by the following measures to be implemented by the project applicant:

a. Direct impacts to southwestern willow flycatcher habitat shall be mitigated in accordance with M-BR-6.

b. A qualified biologist shall supervise the placement of orange construction fencing or equivalent along the boundary of the development area as shown on the approved grading plans. The location and design for fencing will be recommended and subsequently installed by a qualified biologist.

c. To avoid impacts to nesting southern willow flycatchers, vegetation clearing and grubbing within 500 feet of riparian habitat shall not occur from May 1 to September 1. If project construction (other than clearing and grubbing of sensitive habitats) is necessary adjacent to preserved on- and off-site habitat during the flycatcher breeding (or sooner if a Wildlife Agency-approved biologist demonstrates to the satisfaction of the Wildlife Agencies that all nesting is complete), a Wildlife Agency-approved biologist shall conduct pre-construction surveys in the adjacent habitat to determine the location of any active flycatcher nests in the area. The survey shall begin not more than three days prior to the beginning of construction activities. The Agencies shall be notified if any nesting flycatchers are found. During construction, no

activity shall occur within 500 ft (152.4 m) of active flycatcher nesting territories, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. Exceptions to this measure includes cases where surveys confirm that adjacent habitat is not occupied or where noise studies confirm that construction noise levels are below 60 dBA hourly Leq along the edge of adjacent habitat. If construction activities are not completed prior to the breeding season and noise levels exceed this threshold, noise barriers shall be erected to reduce noise impacts to occupied habitat to below 60 dBA hourly Leq and/or the culpable activities will be suspended

M-BR-8 Permanent direct impacts to 62.2 acres of foraging habitat for birds of prey and other special status species shall be mitigated through preservation of 122.4 acres of open space on-site within a regional open space network as detailed in the Conceptual Resource Management Plan (Appendix F-3).

Temporary impacts would be mitigated through revegetation of foraging habitat with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

Indirect impacts shall be mitigated by the following measures:

a. Shielding lighting away from the open space.

b. Monitoring noise levels during construction.

c. Use of range construction fencing, and silt fencing.

d. Permanent fencing and signage shall be placed along the trails and/or between the development open space interface in order to be compliant with County standards and as shown on the Landscape Concept Plans.

M-BR-9 Impacts to the western spadefoot shall be mitigated by the purchase of 11.1 acres of riparian forest and scrub habitat and the 122.4 acres of open space on-site within a regional open space network as detailed in the Conceptual Resource Management Plan (Appendix F-3). If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to western spadefoot habitat by 0.7 acres and mitigation by 2.1 acres for a total mitigation requirement of 9.1 acres.

Additionally, prior to project grading, a written relocation plan shall be prepared and approved by the County and CDFG. In accordance with the plan, western spadefoot toads shall be trapped and relocated. The timing and duration of the relocation program will be based on the activity period of the western spadefoot (generally associated with rainfall and temperature) and proposed construction schedule.

Trapping will occur along the existing pitfall traps located along the western and southern property boundaries and monitored prior to and during proposed construction activities. Any western spadefoot found in the traps will be collected, noted and relocated to predetermined receptor sites within the region. Trapping and relocation shall be conducted by a biologist familiar with the biological natural history of the western spadefoot and possesses a CDFG Memorandum of Understanding (MOU) for conducting these activities. At the end of the relocation effort, the biologist will prepare a summary report noting the number of western spadefoot relocated, the location of the area to which they were moved, and other pertinent facts. The report shall be submitted to the County and CDFG.

M-BR-10 Permanent and temporary impacts to the 14 special status wildlife species identified on-site shall be mitigated through preservation of 122.4 acres of open space on-site within a regional open space network as detailed in the Conceptual Resource Management Plan (Appendix F-3).

M-BR-11 Impacts to nesting birds shall be mitigated through the following measures:

a. Native and naturalized vegetation clearing shall not occur during the breeding season from -February 15 to September 15; However, Project construction activities may occur within this period with written concurrence from the Director of the Department of Planning and Land Use (DPLU), the USFWS, and the CDFG that nesting birds would be avoided. If vegetation removal is to take place during the nesting season, a biologist shall be present during vegetation clearing operations to search for and flag active nests so that they can be avoided.

b. To avoid impacts to nesting raptors, any vegetation clearing or grubbing within 500 feet of trees suitable for raptor nesting shall not occur from February 1 to July 15. However, Project construction activities may occur within this period with written concurrence from the Director of the Department of Planning and Land Use (DPLU), the USFWS, and the CDFG that nesting birds would be avoided. A County-approved biologist shall conduct pre-construction surveys in the adjacent habitat to determine the location of any active raptor nests in the area. The survey shall begin not more than ten days prior to the beginning of construction activities. During construction, no activity shall occur within 500 ft (152.4 m) of active raptor nests, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. The project proponent may seek approval from the Director of DPLU if nesting activities cease prior to July 15.

c. Potential impacts to nesting California gnatcatcher, least Bell's vireo, and southern willow flycatcher will be implemented through agency permitting and with M-BR-3b(c), M-BR-5b(c), and M-BR-7b(c).

M-BR-12 General indirect impacts associated with external community lighting shall be mitigated through all communal lighting associated with the project will be shielded and directed away from the urban/natural edge. The Proposed Project shall be designed to be in compliance with the San Diego County Light Pollution Code (Sections 59.101-59.115). A lighting plan shall be included in the grading plans which shows required lighting adjacent to the open space as being shielded, unidirectional, low pressure sodium illumination (or similar), and directed away from preserve areas using appropriate placement and shields.

Riparian Habitat and Sensitive Natural Communities

M-BR-13 Permanent impacts to coastal sage scrub and disturbed coast sage scrub shall be mitigated at the ratio of 2:1 totaling 29.0 acres within the 122.4-acre proposed on-site open space easement as detailed in the Conceptual Resource Management Plan (Appendix F-3). (Actual amount of coastal sage scrub preserved on-site is 74.5 acres). If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to disturbed coastal sage scrub by 0.7 acre and mitigation by 1.4 acres for a total mitigation requirement of 27.6 acres. Temporary impacts in the amount of 0.3 acres shall be mitigated through revegetation with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

M-BR-14 Permanent impacts to southern mixed chaparral shall be mitigated at the ratio of 0.5:1 totaling 1.1 acres within the 122.4 acre proposed on-site open space easement as detailed in the Conceptual Resource Management Plan (Appendix F-3). (Actual amount of southern mixed chaparral preserved on-site is 17.5 acres).

M-BR-15 Permanent impacts to coast live oak woodland shall be mitigated at the ratio of 3:1 totaling 0.9 acres within the 122.4 acre proposed on-site open space easement as detailed in the Conceptual Resource Management Plan (Appendix F-3). (Actual amount of coast live oak woodland preserved on-site is 1.7 acres).

M-BR-16 Permanent impacts to non-native grassland shall be mitigated at the ratio of 0.5:1 totaling 7.7 acres within the 122.4 acre proposed on-site open space easement as detailed in the Conceptual Resource Management Plan (Appendix F-3). (Actual amount of non-native grassland preserved on-site is 22.0 acres).

M-BR-17 Permanent impacts to pastureland shall be mitigated at the ratio of 0.5:1 totaling 15.1 acres of non-native grassland. A portion of the mitigation shall be on-site within the proposed open space easement. An additional 2.7 acres of mitigation land is required and shall be preserved off-site as detailed in the Conceptual Resource Management Plan (Appendix F-3). If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to pastureland by 16.7 acres and mitigation by 8.3 acres for a total mitigation requirement of 6.8 acres.

M-BR-18 Impacts to willow/mule fat scrub, southern willow scrub, southern arroyo willow riparian forest, and freshwater marsh shall be mitigated through dedication, restoration, creation and/or enhancement of wetlands at a ratio of 3:1 for a total of 12.3 acres or as defined through required state and federal wetland permits as detailed in the Conceptual Wetland Mitigation Plan (Appendix F-4). The Conceptual Wetlands Mitigation Plan will be updated to account for the impacted Jurisdictional Vegetated Wetlands separately from the impacted Vegetation Communities Impacts.

If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to willow/mule fat scrub, southern willow scrub, southern arroyo willow riparian forest, and freshwater marsh by 1 acre and mitigation by 3 acres for a total mitigation requirement of 9.3 acres Temporary impacts shall be mitigated through revegetation with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

Jurisdictional Waters including Wetlands

M-BR-19 Permanent impacts to jurisdictional wetlands will follow the terms and conditions of permits and agreements with ACOE and CDFG.

Permanent impacts shall be mitigated at a ratio of 3:1 and shall consist of purchase and dedication of replacement habitat, creation of wetlands, and revegetation of disturbed riparian habitat. Mitigation measures for impacts to ACOE jurisdictional wetlands, CDFG vegetated riparian habitat, and RPO wetlands are listed as follows:

- ACOE jurisdiction: Permanent impacts to 0.83 acre on-site and 2.29 acres off-site, for a total of 3.12 acres of ACOE jurisdictional waters and wetlands shall be mitigated with 9.36 acres of ACOE jurisdictional waters and wetlands. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to ACOE jurisdiction by 0.11 acre and mitigation by 0.33 acres for a total mitigation requirement of 9.25 acres.
- CDFG jurisdiction: Permanent impacts to 0.93 acres on-site and 2.29 acres off-site for a total of 3.22 acres of CDFG jurisdictional waters and vegetated riparian habitat shall be mitigated with 9.66 acres of CDFG jurisdictional waters and vegetated riparian habitat. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to CDFG jurisdiction by 0.11 acre and mitigation by 0.33 acre for a total mitigation requirement of 9.25 acres.
- RPO jurisdiction: Permanent impacts to 2.29 acres of RPO wetlands off-site shall be mitigated with 6.87 acres of RPO wetlands. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to RPO jurisdiction by 0.11 acre and mitigation by 0.33 acre for a total mitigation requirement of 9.25 acres.

The Conceptual Wetlands Mitigation Plan will be updated to account for the impacted Jurisdictional Vegetated Wetlands separately from the impacted Vegetation Communities Impacts.

M-BR-20 Temporary impacts to 2.04 acres of jurisdictional wetlands shall be mitigated through revegetation with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce temporary impacts by 0.4 acre.

3.1.6 Conclusion

Special Status Species

Impact BR-1: Construction activity could result in significant indirect impacts to the Arroyo Toad as a result of increased lighting, debris, potential erosion within the drainage area and any increase or change in run-off from the Project Site. M-BR-1 requires the use of a biologist to direct the construction of protective fencing and monitor grading activities. Implementation of this mitigation measure would reduce the significant effect because it would assure that toads remain outside of construction areas where they could be harmed by lighting, debris, eroding soils, or be displaced by a change in run-off. With implementation of this mitigation measure, Impact BR-1 would be less than significant.

Impact BR-2: Permanent impacts to 14.5 acres of coastal sage scrub habitat and temporary impacts to 0.3 acre coastal sage scrub habitat would result in a significant impact due to the reduction of viable habitat for the California gnatcatcher. M-BR-2 requires preservation of the habitat at the ratio of 2:1 for a total of 29.0 acres. The actual amount preserved within the dedicated open space is 74.5 acres. Implementation of this mitigation measure reduces the potentially significant effect because it provides compensation for the wildlife value of this vegetation community. The mitigation ratio for coastal age scrub was developed based on NCCP Guidelines (CDFG and California Resources Agency 1997), and the Wildlife Agencies have reviewed and approved these mitigation ratios. Additionally, these standard ratios have been applied to projects within the County of San Diego since the Biological Report Guidelines were developed in the mid-1990s (adopted by the Board of Supervisors). This ratio is effective because these reviewing agencies have reached consensus that retention at these ratios will result in sustainable levels of this habitat. Preservation of the coastal sage scrub within an open space easement would mitigate for loss of habitat by providing areas where potentially dislocated birds could relocate and thrive. With implementation of this mitigation measure, Impact BR-2 would be less than significant.

Impact BR-3: Construction activities and Proposed Project operation could result in significant indirect impacts to the California gnatcatcher as a result of increased noise, lighting, potential erosion and debris. M-BR-3 requires the retention of a project biologist to oversee the placement of fencing along development areas. Additionally, directed California gnatcatcher surveys are required to be conducted prior to grading. Implementation of this mitigation measure would reduce the potentially significant effect because if active nests are located within 500 feet of construction activities restrictions on grading and habitat removal will be implemented. This distance has been determined

by the wildlife agencies to adequately attenuate disturbances allowing gnatcatchers to be protected from movement and noise from construction activities during the breeding season. Because the daily activities of this species would not be disrupted, breeding and nesting activities would continue within the proposed open-space thus helping to ensure the survival of the species. With implementation of this mitigation measure, Impact BR-3 would be less than significant.

Impact BR-4: Proposed Project implementation would result in permanent direct impacts to 3.7 acres of southern willow scrub and southern arroyo willow riparian forest habitats. This represents a significant impact due to a reduction of habitat supporting least Bell's vireo. M-BR-4 requires mitigation of the directly impacted habitat at the ratio of 3:1 for a total of 11.1 acres. Implementation of this mitigation measure reduces the potentially significant effect because it provides compensation for the wildlife value of this vegetation community. The mitigation ratio for southern willow scrub/ willow riparian forest was developed based on NCCP Guidelines (CDFG and California Resources Agency 1997), and the Wildlife Agencies have reviewed and approved these mitigation ratios. Additionally, these standard ratios have been applied to projects within the County of San Diego since DPLU developed its first Biological Report Guidelines in the mid 1990s (adopted by the Board of Supervisors). The ratio is effective because consensus has been reached by the reviewing agencies that this level of preservation assures the continuity of the species within protected habitat. Additionally, 2.2 acres of the habitat would be temporarily impacted during construction of road improvements. These temporary impacts would be mitigated through restoration of the vegetation assuring the habitat is returned to a state which can support the continuity of a viable population of the species. With implementation of this mitigation measure, Impact BR-4 would be less than significant.

Impact BR-5: Construction activities associated with off-site improvements could result in significant indirect impacts to least Bell's vireo habitat due to increased noise, lighting, potential erosion and debris. M-BR-5 requires the retention of a project biologist to oversee the placement of fencing along development areas. Additionally, directed least Bell's vireo surveys are required to be conducted. Implementation of this mitigation measure would reduce the potentially significant effect because if active nests are located within 500 feet of construction activities restrictions on grading and habitat removal will be implemented allowing the breeding and/or nesting birds to be undisturbed. This distance has been determined by the wildlife agencies to adequately attenuate noise and disturbance to a level where nesting and breeding birds are not affected. Because the daily activities of this species would not be disrupted, breeding and nesting activities would continue within the proposed open-space thus helping to ensure the survival of the species. With implementation of this mitigation measure, Impact BR-5 would be less than significant.

Impact BR-6: As stated in BR-4, above, road improvements could result in permanent direct impacts to 3.7 acres and temporary impacts to 2.2 acres of southern willow scrub and southern arroyo willow riparian forest habitats. Although unoccupied by southwestern willow flycatcher an impact could result from removal of this habitat which is known to support this species. M-BR-6 is the same as M-BR-4 requiring mitigation of the habitat at the ratio of 3:1 for a total of 11.1 acres. Implementation of this mitigation measure reduces the potentially significant effect because the mitigation ratio for southern arroyo willow riparian forest was developed based on NCCP Guidelines (CDFG and California Resources Agency 1997), and the Wildlife Agencies have reviewed and

approved these mitigation ratios. Additionally, these standard ratios have been applied to projects within the County of San Diego since DPLU developed its first Biological Report Guidelines in the mid 1990s (adopted by the Board of Supervisors). Consensus has been reached by the reviewing agencies that this ratio is effective because it provides compensation for the wildlife value of this naturalized vegetation type. Although presently unoccupied, the mitigation provides protection of habitat suitable for supporting southwestern willow flycatcher. With implementation of this mitigation measure, Impact BR-6 would be less than significant.

Impact BR-7: Construction activities could result in significant indirect impacts to southwestern willow flycatcher habitat due to increased noise, lighting, potential erosion and debris. M-BR-7 requires the retention of a project biologist to oversee the placement of fencing along development areas. Additionally, directed southwestern willow flycatcher surveys are required to be conducted. Implementation of this mitigation measure would reduce the potentially significant effect because if active nests are located within 500 feet of construction activities restrictions on grading and habitat removal will be implemented resulting in the attenuation of noise and disturbance to a level where nesting and breeding birds are not affected. With implementation of this mitigation measure, Impact BR-7 would be less than significant.

Impact BR-8: The permanent removal of 62.2 acres and temporary impact to 5.5 acres of foraging habitat for raptors would constitute a significant impact. M-BR-8 requires the on-site preservation of 122.4 acres of Designated Open Space. Implementation of this mitigation measure would reduce the potentially significant effect because preservation of these lands would adequately provide open lands that are suitable for rodents and other small prey which would assure the on-going viability of the local raptor population. With implementation of this mitigation measure, Impact BR-8 would be less than significant.

Impact BR-9: The removal of the orchard and agricultural areas of the Project Site could result in impacts to western spadefoot toad due to removal of suitable habitat. M-BR-9 requires the trapping and relocation of toads prior to and during project grading. Implementation of this mitigation measure would reduce the potentially significant effect because it provides a mechanism for the safe collection of any member of the species residing on-site and the relocation at predetermined locations as part of a Memorandum of Understanding with the CDFG allowing the on-going viability of the specie at another suitable location. With implementation of this mitigation measure, Impact BR-9 would be less than significant.

Impact BR-10: Permanent impacts to 14.5 acres of coastal sage scrub, 2.2 acres of southern mixed chaparral, 30.2 acres of pastureland and 15.3 acres of non-native grassland and temporary impacts to a total of 5.5 acres of the same habitats would result in a significant impact due to the removal of habitat supporting the 14 special status wildlife supported by the Project Site. M-BR-10 requires the on-site preservation of 122.4 acres of Designated Open Space. Implementation of this mitigation measure would reduce the potentially significant effect because preservation of these lands would provide an adequate area for the continued viability of the special status wildlife species. With implementation of this mitigation measure, Impact BR-10 would be less than significant.

Impact BR-11: Implementation of the Proposed Project could result in significant impacts to nesting birds if clearing, grading or, building demolition is undertaken during the breeding seasons. M-BR-11 requires all vegetation clearing activities to occur outside of nesting seasons unless specifically allowed by written concurrence from DPLU, USFWS and CDFG. Additionally, a "directed" survey is required prior to any clearing or grading during raptor nesting/breeding season in which case, if active nests are found, no removal is allowed to occur within 500 feet of the nest. Likewise, "directed" surveys of California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher are to occur prior to any clearing or grading activities during each appropriate breeding season. A Limited Building Zone is also required providing a buffer around any building needing brush management for fire protection. Implementation of this mitigation measure would reduce the potentially significant effect because it will assure that nesting birds are identified prior to potential damage to the nests. The measure also provides for the continued protection of the breeding birds and their habitat. With implementation of this mitigation measure, Impact BR-11 would be less than significant.

Impact BR-12: Increased external community lighting could result in a significant impact due to disruption caused by light shining directly into preserved habitat. M-BR-12 requires that all lighting be shielded and directed away from natural areas pursuant to the SD County Light Pollution Code and project lighting plan. Implementation of this mitigation measure would reduce the potentially significant effect because it will assure that the preserve areas are protected from light and glare. With implementation of this mitigation measure, Impact BR-12 would be less than significant.

Riparian Habitat and Sensitive Natural Communities

Impacts BR-13, BR-14, BR-15, BR-16 and BR-17: The disturbance of sensitive native and naturalized habitats on and off-site could affect wildlife that is supported within each. Specifically, the following would result in significant impacts: the permanent removal of 14.5 acres of coastal sage scrub (BR-13); the permanent removal of 2.2 acres of on-site southern mixed chaparral (BR-14); the permanent removal of 0.3 acres of coast live oak woodland (BR-15); the permanent removal of 15.3 acres of non-native grasslands (BR-16); and the permanent removal of 30.2 acres of pastureland (BR-17). M-BR-13 through M-BR-17 require the on-site preservation of 171.7 acres, comprised of a 122.4-acre Designated Open Space area and a 49.3-acre Agricultural Open Space area. An additional 2.7 acres will be preserved off-site to meet mitigation ratio totals. Implementation of these mitigation measures would reduce the potentially significant effects because preservation of these lands would adequately provide open lands suitable for the continued viability of wildlife supported within these habitats. With implementation of these mitigation measures, Impact BR-13 through BR-17 would be less than significant.

Impact BR-18: Implementation of the Proposed Project would result in the removal of. 4.1 acres of wetland vegetation comprised of 0.1 acre of isolated willow/mule fat scrub on-site and 0.9 acre of southern willow scrub, 2.8 acres of southern arroyo willow riparian forest and 0.3 acre of freshwater marsh off-site. The loss of this habitat represents a significant impact. M-BR-18 requires the dedication, restoration, creation and/or enhancement of wetlands at a ratio of 3:1 for a total of 12.3 acres. Implementation of this mitigation measure reduces the potentially significant effect because it provides compensation for the wildlife value of this rare and sensitive vegetation type. The mitigation ratio for wetland protection was developed based on

NCCP Guidelines (CDFG and California Resources Agency 1997), and the Wildlife Agencies have reviewed and approved these mitigation ratios. Additionally, these standard ratios have been applied to projects within the County of San Diego since DPLU developed its first Biological Report Guidelines in the mid 1990s (adopted by the Board of Supervisors). The ratio is effective because the reviewing agencies have reached consensus that retention at this ratio will result in sustainable levels of this habitat. With implementation of this mitigation measure, Impact BR-18 would be less than significant.

Jurisdictional Waters including Wetlands

BR-19: Implementation of the Proposed Project will result in permanent impacts to the following jurisdictional wetlands and waterways: 3.12 acres of ACOE jurisdiction; 3.22 acres of CDFG jurisdiction; and 2.29 acres of RPO wetlands. These impacts are considered significant due to the loss of a rare and sensitive habitat. M-BR-19 requires the dedication, restoration, creation and/or enhancement of wetlands at a ratio of 3:1 for a total of 9.36 acres of ACOE jurisdictional waters and wetlands, 9.66 acres of CDFG jurisdictional waters and vegetated riparian habitat and 6.87 acres of County wetlands all to be mitigated within the 11.1 acre off-site mitigation requirement. Implementation of this mitigation measure reduces the potentially significant effect because the mitigation ratio for wetland protection was developed based on NCCP Guidelines (CDFG and California Resources Agency 1997), and the Wildlife Agencies have reviewed and approved these mitigation ratios. Consensus has been reached by the reviewing agencies that retention at this ratio will result in sustainable levels of this habitat. Additionally, these standard ratios have been applied to projects within the County of San Diego since DPLU developed its first Biological Report Guidelines in the mid-1990s. With implementation of this mitigation measure, Impact BR-19 would be less than significant.

BR-20: Off-site improvements associated with the Proposed Project will result in temporary impacts to 2.04 acres of jurisdictional wetlands. These improvement areas represent significant impacts due to the disturbance of a rare and sensitive habitat. M-BR-20 requires restoration of all disturbed areas to their original conditions allowing re-growth of vegetation and the return of wildlife assuring the continuity of viable habitat. With implementation of this mitigation measure, Impact BR-20 would be reduced to below a level of significance.

Wildlife Movement

Development of the Project Site and associated off-site improvement areas would not impact regional wildlife movement. Construction of Pala Mesa Drive will not adversely affect access to local foraging and breeding habitat as it will be located south of the main Horse Ranch Creek drainage area. In addition, utilizing the existing Pankey Road Bridge will allow for continued access for small wildlife to riparian vegetation to the southwest. Thus, interference with wildlife movement has been avoided through project design ensuring that impacts would be less than significant.

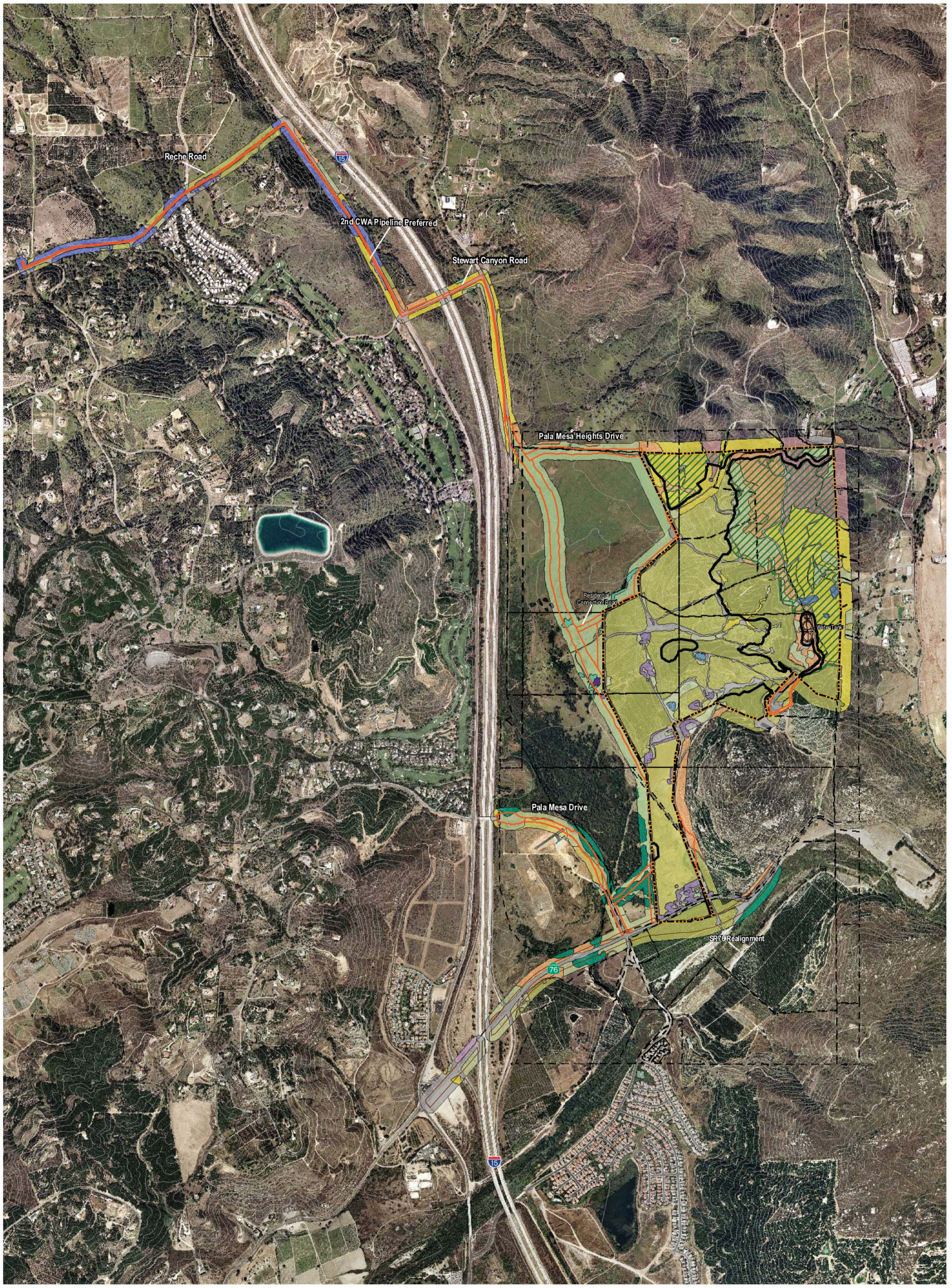
Local Policies, Ordinances, and Adopted Plans

There would be no impacts to biological resources protected by local ordinances that are not already addressed by mitigation measures for vegetation communities, special

status species, or jurisdictional wetlands. Through the mitigation measures listed above (**M-BR-1** through **M-BR-20**) and design considerations the project will comply with all applicable local ordinances, policies, and plans and impacts would be less than significant.

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Map Source: NRC, May 2009



Boundary
On Site Impact Area
Off-site Improvements
Proposed SR76 Realignment
Parcel Boundaries
Open Space

(AG) Agriculture - 18000/18100
(NNG) Non-native Grassland - 42200
(CSS) Coastal Sage Scrub - 32500
(DCSS) Disturbed Coastal Sage Scrub - 32500
(CHP) Southern Mixed Chapparal - 37120
(NNT) Non-native Trees - 11000
(PAS) Pasture - 18310

(OW) Coast Live Oak Woodland - 71160
(WMS) Willow and Mulefat Scrub - 63300
(SAWRF) Southern Arroyo Willow Riparian Forest - 61320
(SWS) Southern Willow Scrub - 63320
(FWM) Freshwater Marsh - 52400
(OWP) Open Water Ponds - 13100
(DIST) Disturbed - 11000/12000/13000

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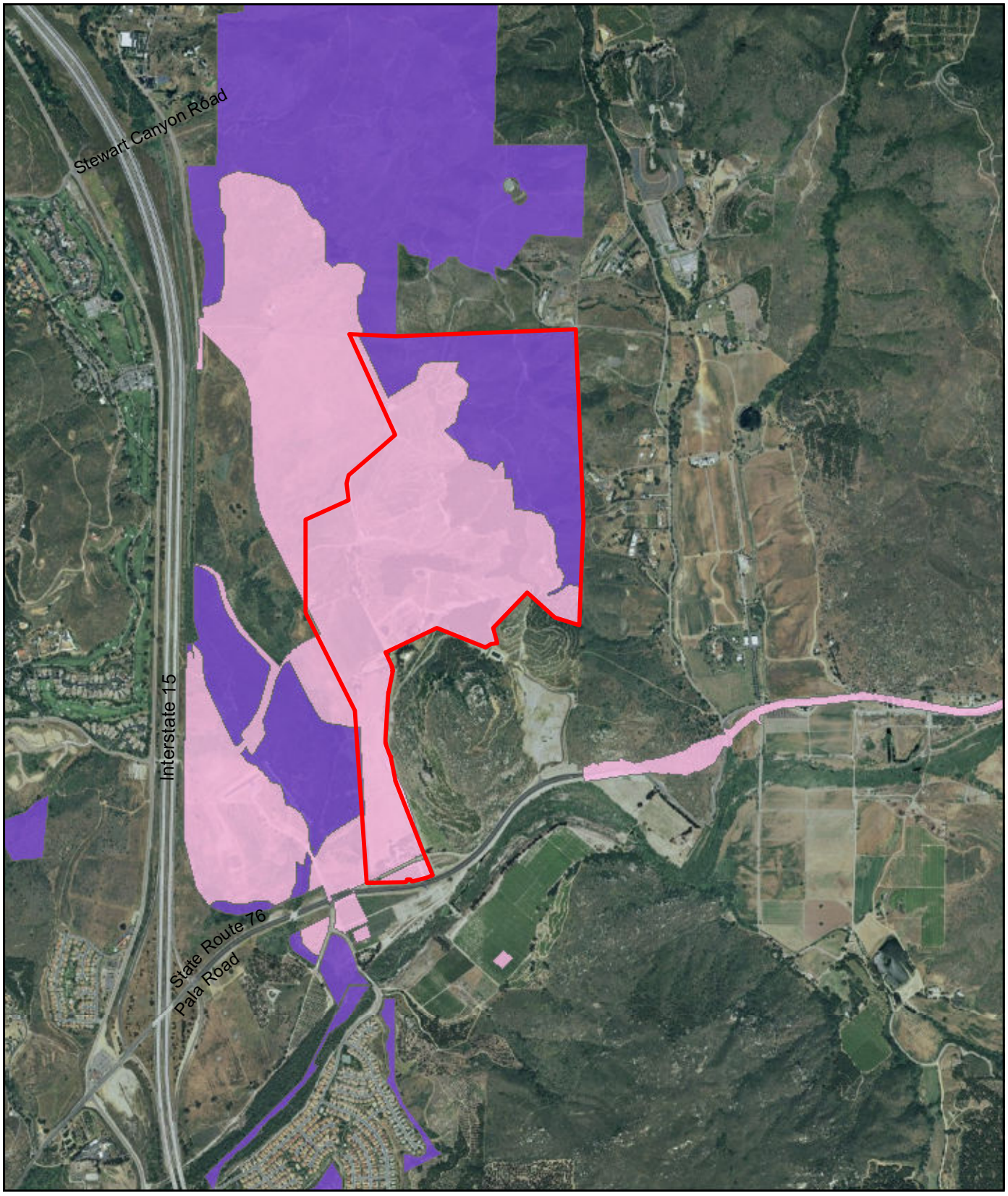
FIGURE 3.1-1
Biological Resources

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Image source: Copyright 2010 AerialsExpress, All Rights Reserved (flown Feb 2010)



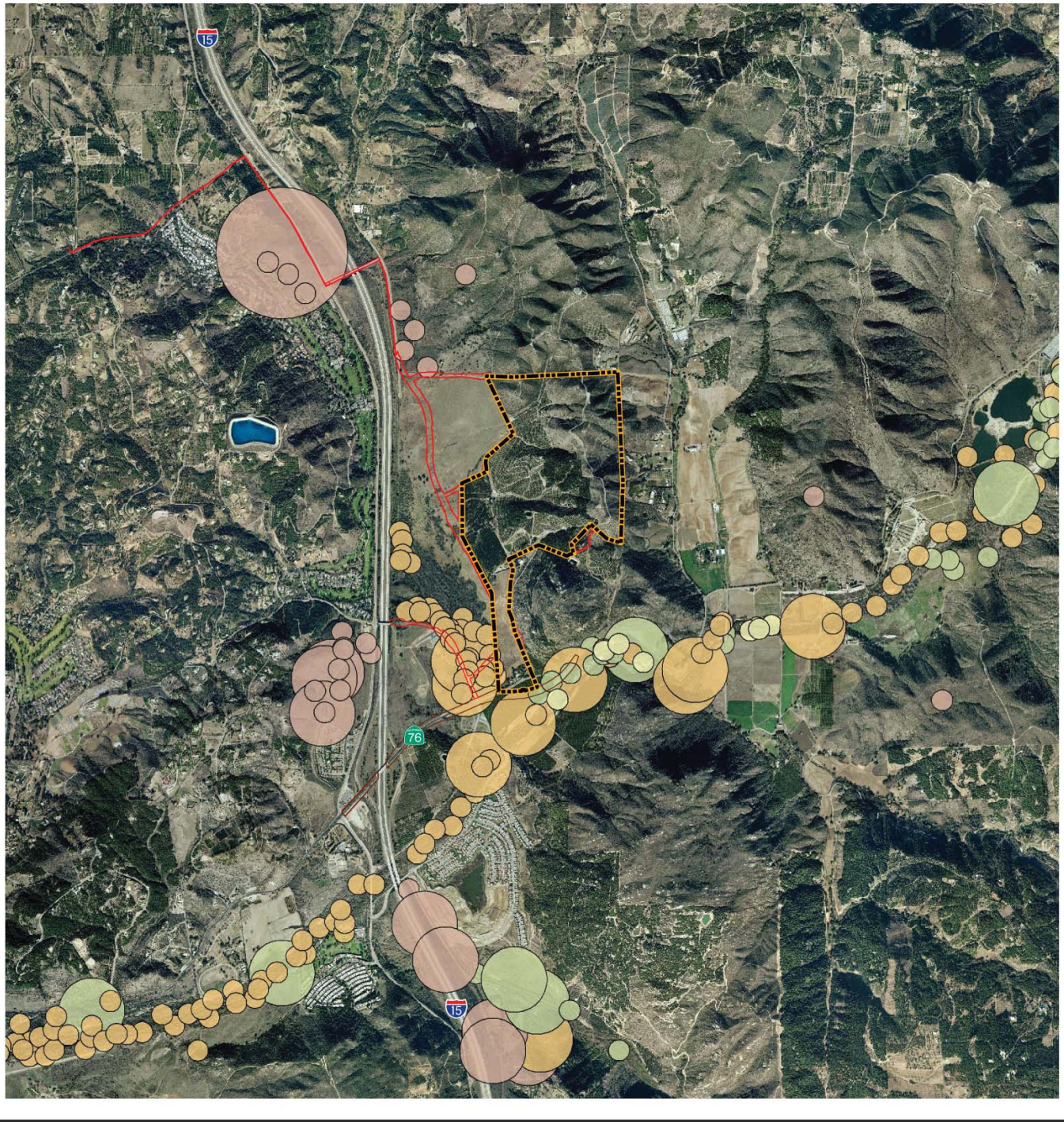
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FIGURE 3.1-2

Draft North County MSCP

Map Source: NRC, April 2008



Site Boundary
Off-site Improvements
Proposed SR76 Realignment
Arroyo Toad. *Bufo californicus*
California gnatcatcher. *Polioptila californica*
Least Bell's vireo. *Vireo bellii pusillus*
Southwestern willow flycatcher. *Empidonax traillii extimus*

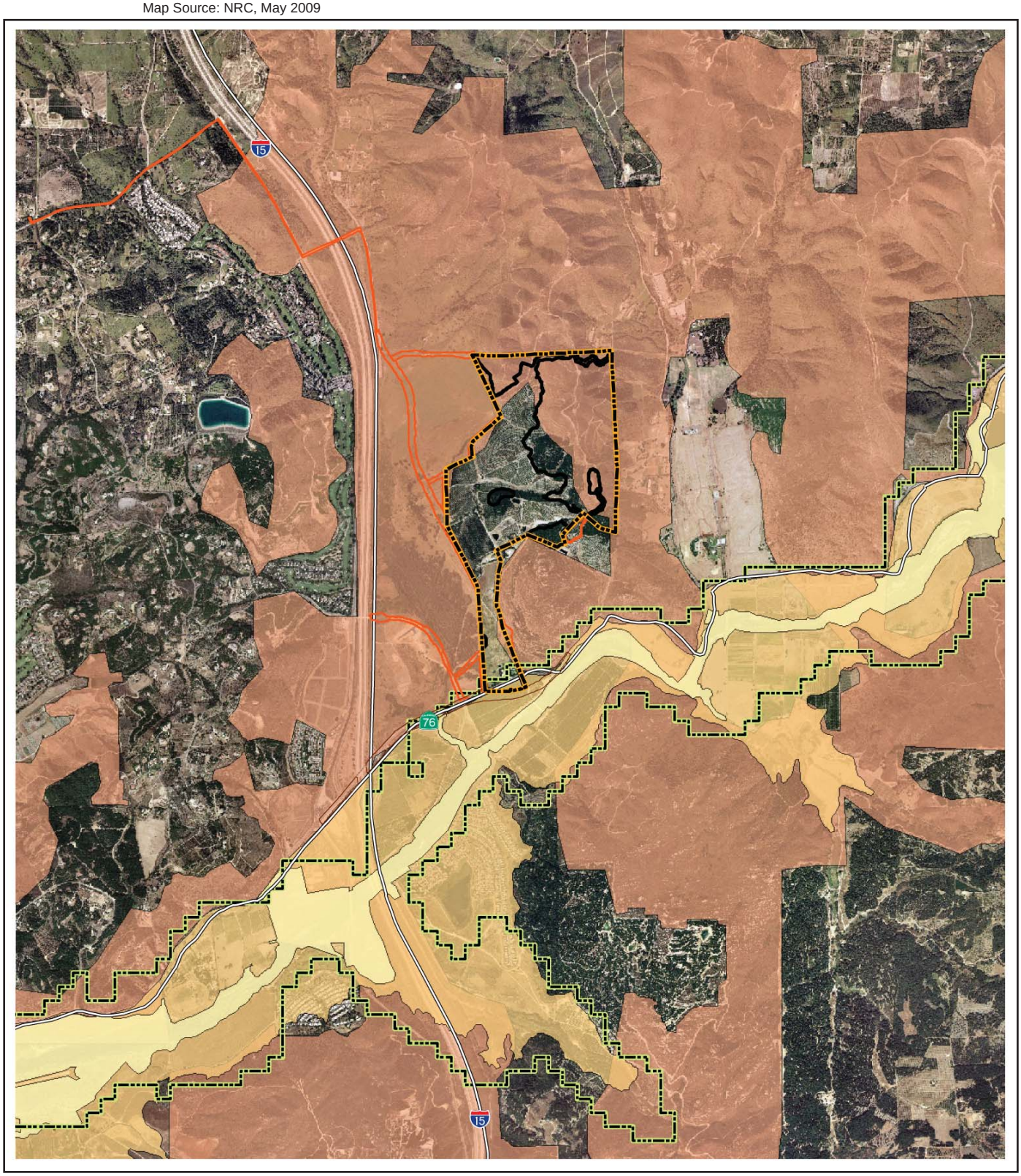
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FIGURE 3.1-3
Federally Listed Species in Project Vicinity

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Map Source: NRC, May 2009



Site Boundary
On Site Impact Area
Off-site Improvements
SR76 Realignment
Arroyo Toad. *Bufo californicus* (E, CH designated April 2005) Excluded Essential Habitat
Southwestern willow flycatcher. *Empidonax traillii extimus* (E, CH designated Oct 2005)
Least Bell's vireo. *Vireo bellii pusillus* (E, CH designated Feb 1994)
California gnatcatcher. *Polioptila californica* (T, CH designated 2007)

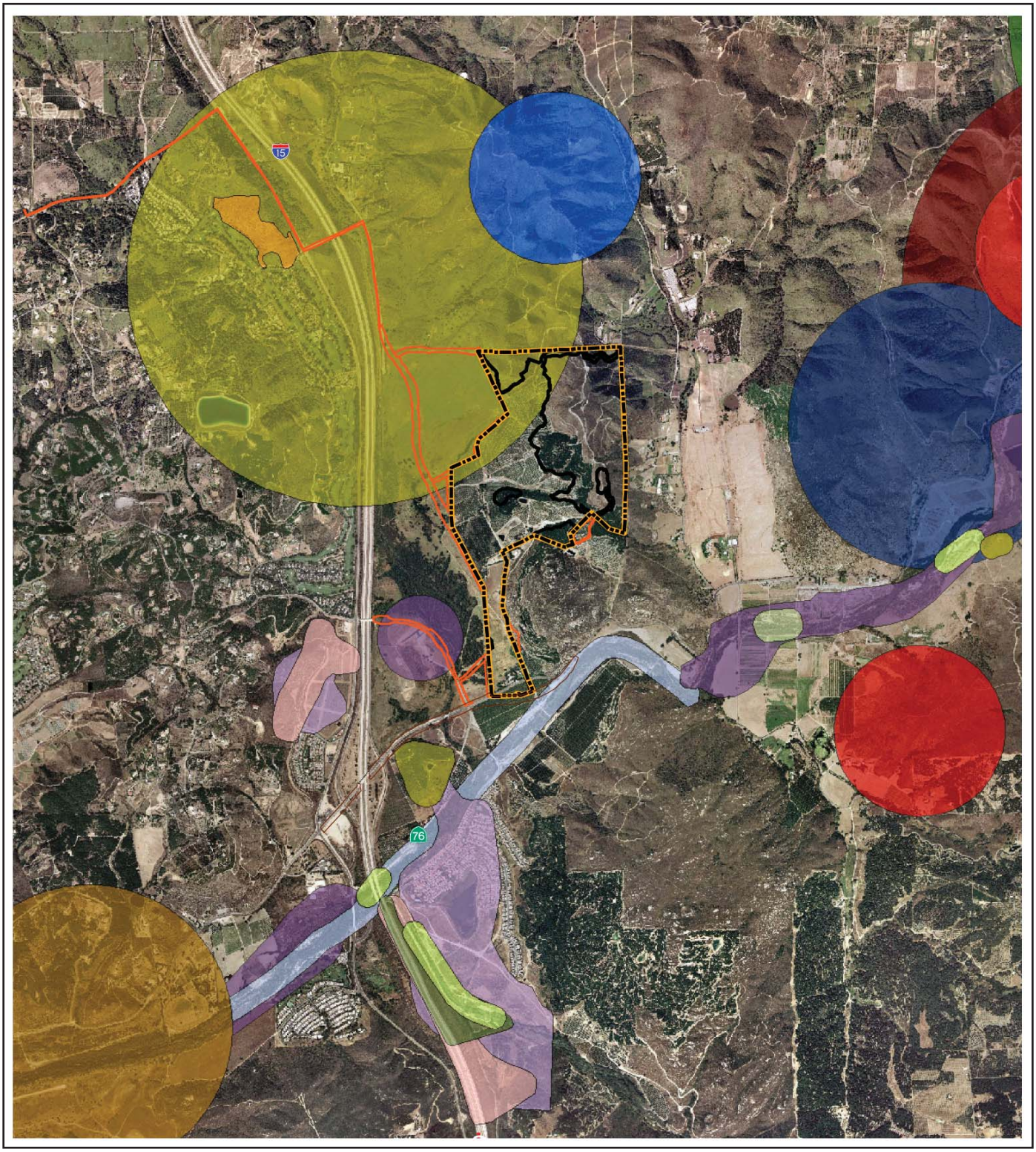
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FIGURE 3.1-4
Critical Habitat in Project Vicinity

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Map Source: NRC, September 2008



0 Feet 3000

- Meadowood boundary
- On Site Impact Area
- Off-site Improvements
- SR76 Realignment
- Southern Cottonwood Willow Riparian Forest
- chaparral nolina
- Parry's tetracoccus
- Robinson's pepper-grass
- arroyo toad
- Coronado skink
- northern red-diamond rattlesnake
- orange-throated whiptail
- rosy boa
- San Diego desert woodrat
- Cooper's hawk
- coastal California gnatcatcher
- coastal cactus wren
- golden eagle
- least Bell's vireo
- least bittern
- southern California rufous-crowned sparrow
- southwestern willow flycatcher
- white-faced ibis
- yellow warbler
- yellow-breasted chat

FIGURE 3.1-5

Special Status Species in Project Vicinity

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Map Source: NRC, May 2009

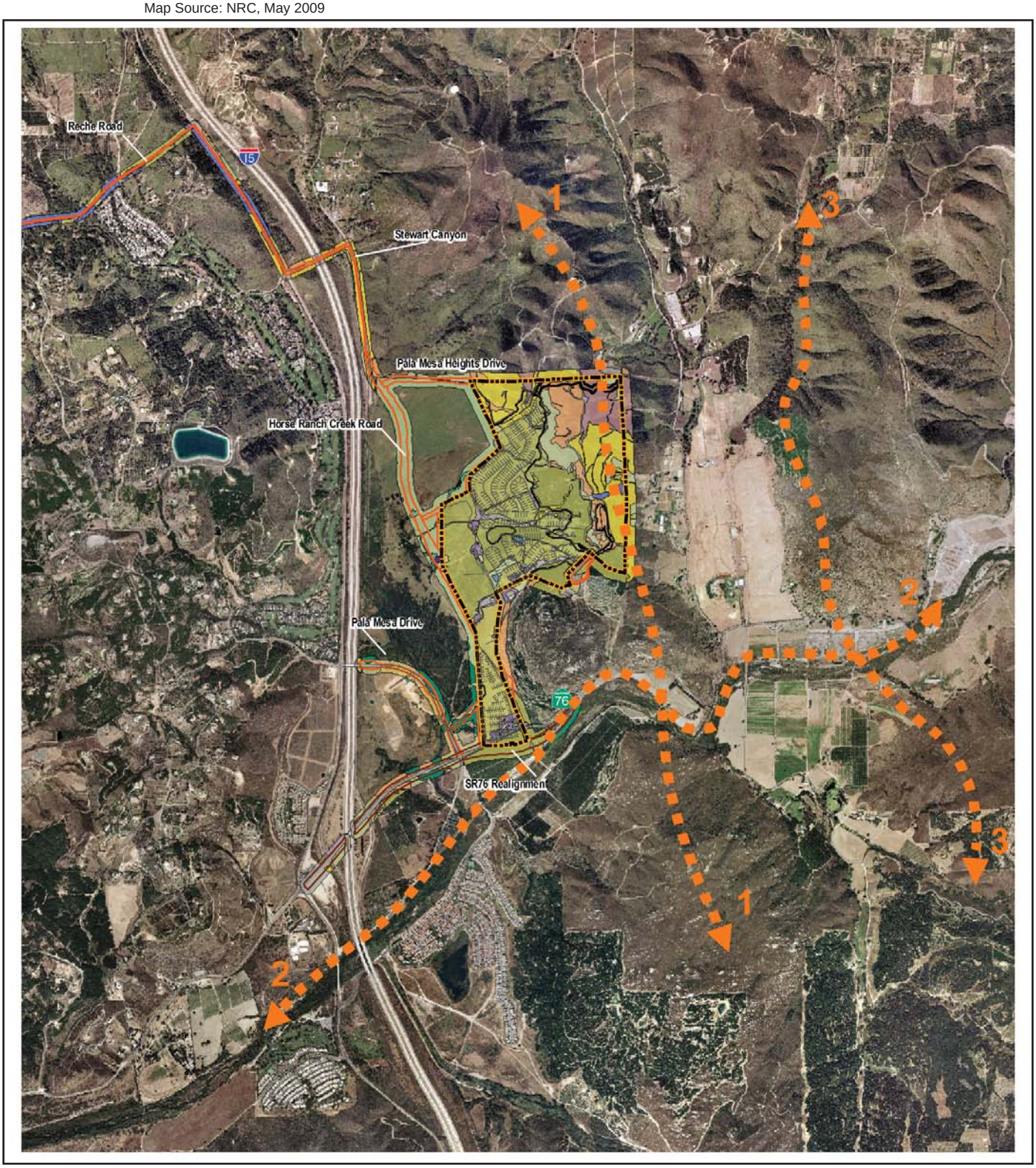


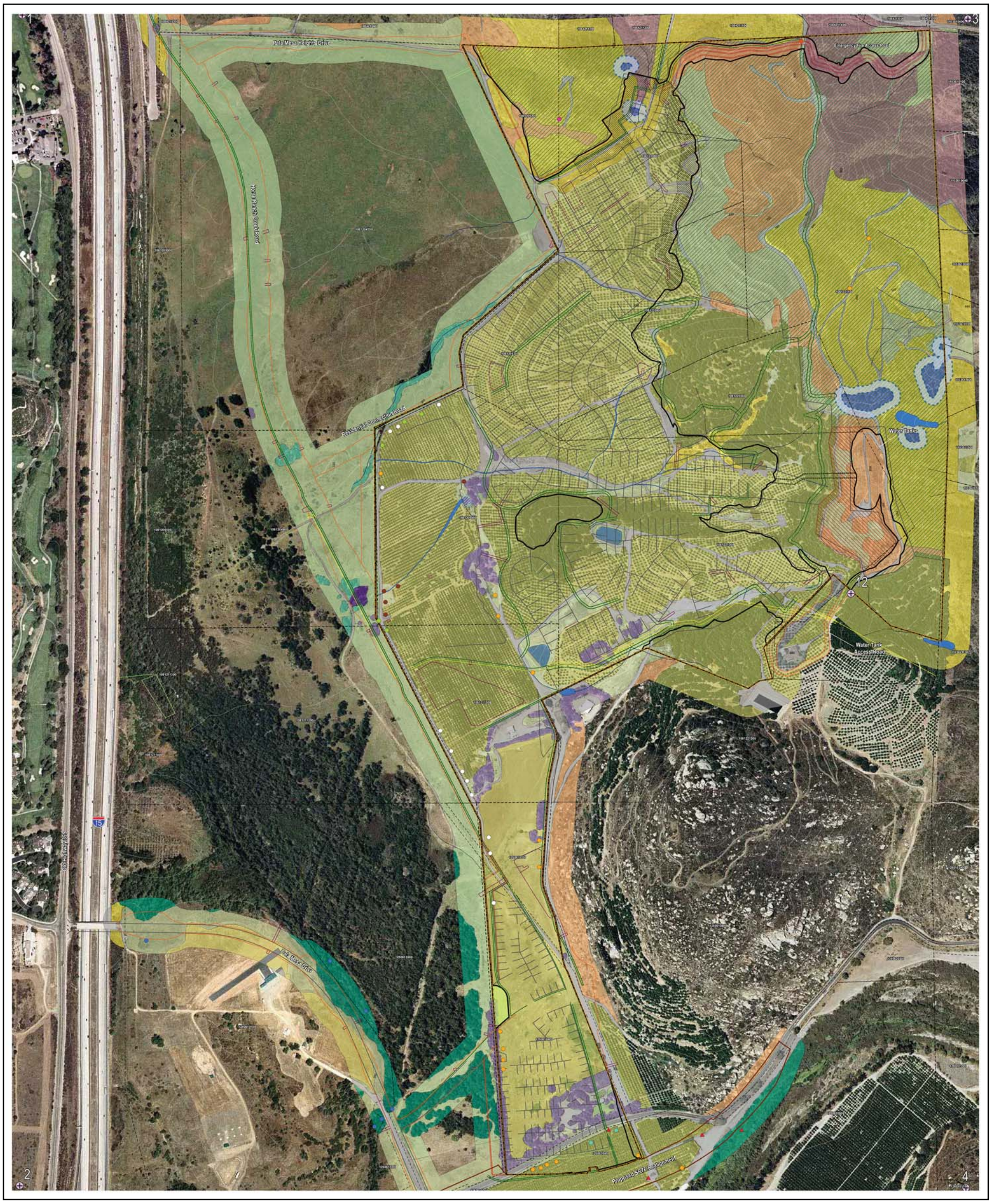
FIGURE 3.1-6
Wildlife Corridors

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Map Source: NRC, June 2009



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Boundary
On Site Impact Area
Temporary Impact Area
Off-site Improvements
SR76 Realignment
Limited Building Zone
Brush Management Zone
Impact Neutral
Open Space

Lot Plan
General Utility/Access Easements
Access Easements
Electric Easements
Private Easements
Storm Drain Easements

Parcel Boundaries
Trails
100-foot Wetland Buffer
50-foot Oak Root Zone
CDFG Wetland
Corps and CDFG Jurisdiction

(AG) Agriculture - 18000/18100
(NNG) Non-native Grassland - 42200
(CSS) Coastal Sage Scrub - 32500
(DCSS) Disturbed Coastal Sage Scrub - 32500
(CHP) Southern Mixed Chapparal - 37120
(NNT) Non-native Trees - 11000
(PAS) Pasture - 18310

(OW) Coast Live Oak Woodland - 71160
(WMS) Willow and Mulefat Scrub - 63300
(SAWRF) Southern Arroyo Willow Riparian Forest - 61320
(SWS) Southern Willow Scrub - 63320
(FWM) Freshwater Marsh - 52400
(OWP) Open Water Ponds - 13100
(DIST) Disturbed - 11000/12000/13000

California Gnatcatcher (NRC 2007)
Least Bells Vireo (NRC 2007 and 2008)
Arroyo Toad (Cadre 2003-2007)
Western Spadefoot (Cadre 2003-2005)
Orange-throated Whiptail (NRC and Cadre 2003-2006)
San Diego Coast Horned Lizard (Cadre 2004)
Northern Red Rattlesnake (NRC 2007)
Two-striped Garter Snake (Cadre 2003-2005)
Northwestern San Diego Pocket Mouse (Cadre 2003-2005)

Registration Points		
1	485039	3691072
2	485033	3688581
3	487048	3691062
4	487044	3688574
8	485295	3690681
12	486751	3689142

Ubiquitous Sensitive Species (On Site)

Coastal Western Whiptail	Red-shouldered Hawk
San Diego Ringneck Snake	Barn Owl
Coronado Skink	Southern Cal. Rufous-crowned Sparrow
Turkey Vulture	Western Bluebird
Northern Harrier	

Ubiquitous Sensitive Species (Off Site)

White-faced Ibis	Cooper's Hawk
Green Heron	Barn Owl
Turkey Vulture	Western Bluebird
White-tailed Kite	Yellow Warbler
Red-shouldered Hawk	Yellow Breasted Chat

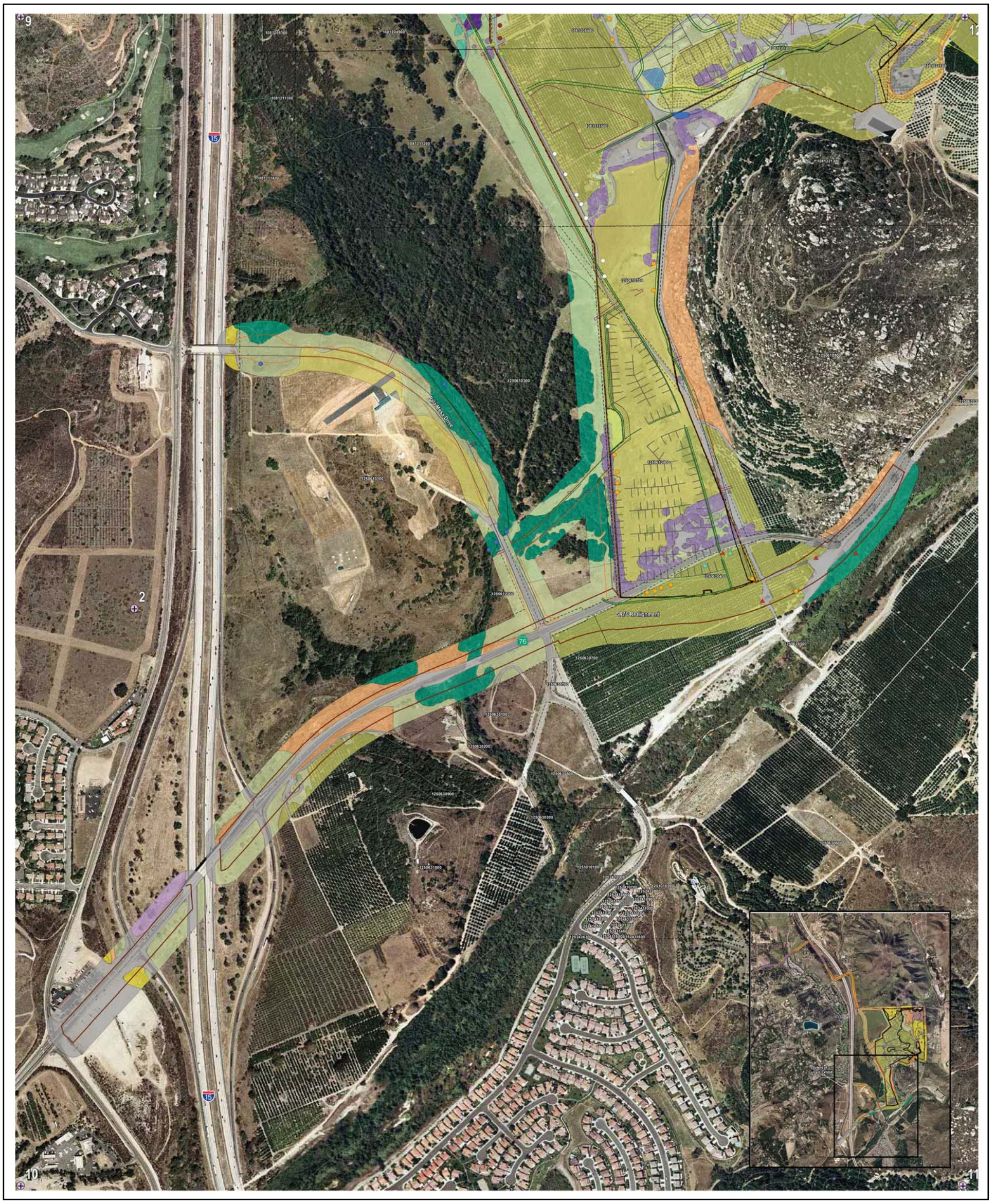
FIGURE 3.1-7a
Impacts to Biological Resources

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Map Source: NRC, June 2009



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Boundary
On Site Impact Area
Temporary Impact Area
Off-site Improvements
Proposed SR76 Realignment
Brush Management Zone
100 foot Wetland Buffer
50 foot Oak Tree Buffer

CDFG Wetland
Corps and CDFG Jurisdiction
Parcel Boundaries
Lot Plan
General Utility/Access Easements
Access Easements
Electric Easements
Storm Drain Easements

(AG) Agriculture - 18000/18100
(NNG) Non-native Grassland - 42200
(CSS) Coastal Sage Scrub - 32500
(DCSS) Disturbed Coastal Sage Scrub - 32500
(CHP) Southern Mixed Chapparal - 37120
(NNT) Non-native Trees - 11000
(PAS) Pasture - 18310

(OW) Coast Live Oak Woodland - 71160
(WMS) Willow and Mulefat Scrub - 63300
(SAWRF) Southern Arroyo Willow Riparian Forest - 61320
(SWS) Southern Willow Scrub - 63320
(FWM) Freshwater Marsh - 52400
(OWP) Open Water Ponds - 13100
(DIST) Disturbed - 11000/12000/13000

Least Bells Vireo (NRC 2007 and 2008)
Arroyo Toad (Cadre 2003-2007)
Western Spadefoot (Cadre 2003-2005)
Orange-throated Whiptail (NRC and Cadre 2003-2006)
San Diego Coast Horned Lizard (Cadre 2004)
Two-striped Garter Snake (Cadre 2003-2005)
Northwestern San Diego Pocket Mouse (Cadre 2003-2005)

Registration Points

2	485033	3688581
9	484790	3689841
10	484790	3687352
11	486796	3687352
12	486800	3689841

Ubiquitous Sensitive Species (On Site)

Coastal Western Whiptail
San Diego Ringneck Snake
Coronado Skink
Turkey Vulture
Northern Harrier
Red-shouldered Hawk
Barn Owl
Southern Cal. Rufous-crowned Sparrow
Western Bluebird

Ubiquitous Sensitive Species (Off Site)

White-faced Ibis
Green Heron
Turkey Vulture
White-tailed Kite
Red-shouldered Hawk
Cooper's Hawk
Barn Owl
Western Bluebird
Yellow Warbler
Yellow Breasted Chat

FIGURE 3.1-7b
Impacts to Biological Resources

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Map Source: NRC, June 2009



Boundary
Off-site Improvements
Parcel Boundaries
50-foot Oak Root Zone

(AG) Agriculture - 18000/18100
(NNG) Non-native Grassland - 42200
(CSS) Coastal Sage Scrub - 32500
(DCSS) Disturbed Coastal Sage Scrub - 32500
(CHP) Southern Mixed Chapparal - 37120
(NNT) Non-native Trees - 11000
(PAS) Pasture - 18310
(OW) Coast Live Oak Woodland - 71160
(WMS) Willow and Mulefat Scrub - 63300
(SAWRF) Southern Arroyo Willow Riparian Forest - 61320
(SWS) Southern Willow Scrub - 63320
(FWM) Freshwater Marsh - 52400
(OWP) Open Water Ponds - 13100
(DIST) Disturbed - 11000/12000/13000

California Gnatcatcher (NRC 2007)

Registration Points

1	485039	3691072
6	482741	3692785
7	485467	3692792
8	482738	3691006
13	486800	3689841
14	483055	3694744
15	483738	3694744
16	483057	3693993

Ubiquitous Sensitive Species (On Site)

Coastal Western Whiptail
San Diego Ringneck Snake
Coronado Skink
Turkey Vulture
Northern Harrier
Red-shouldered Hawk
Barn Owl
Southern Cal. Rufous-crowned Sparrow
Western Bluebird

Ubiquitous Sensitive Species (Off Site)

White-faced Ibis
Green Heron
Turkey Vulture
White-tailed Kite
Red-shouldered Hawk
Cooper's Hawk
Barn Owl
Western Bluebird
Yellow Warbler
Yellow Breasted Chat

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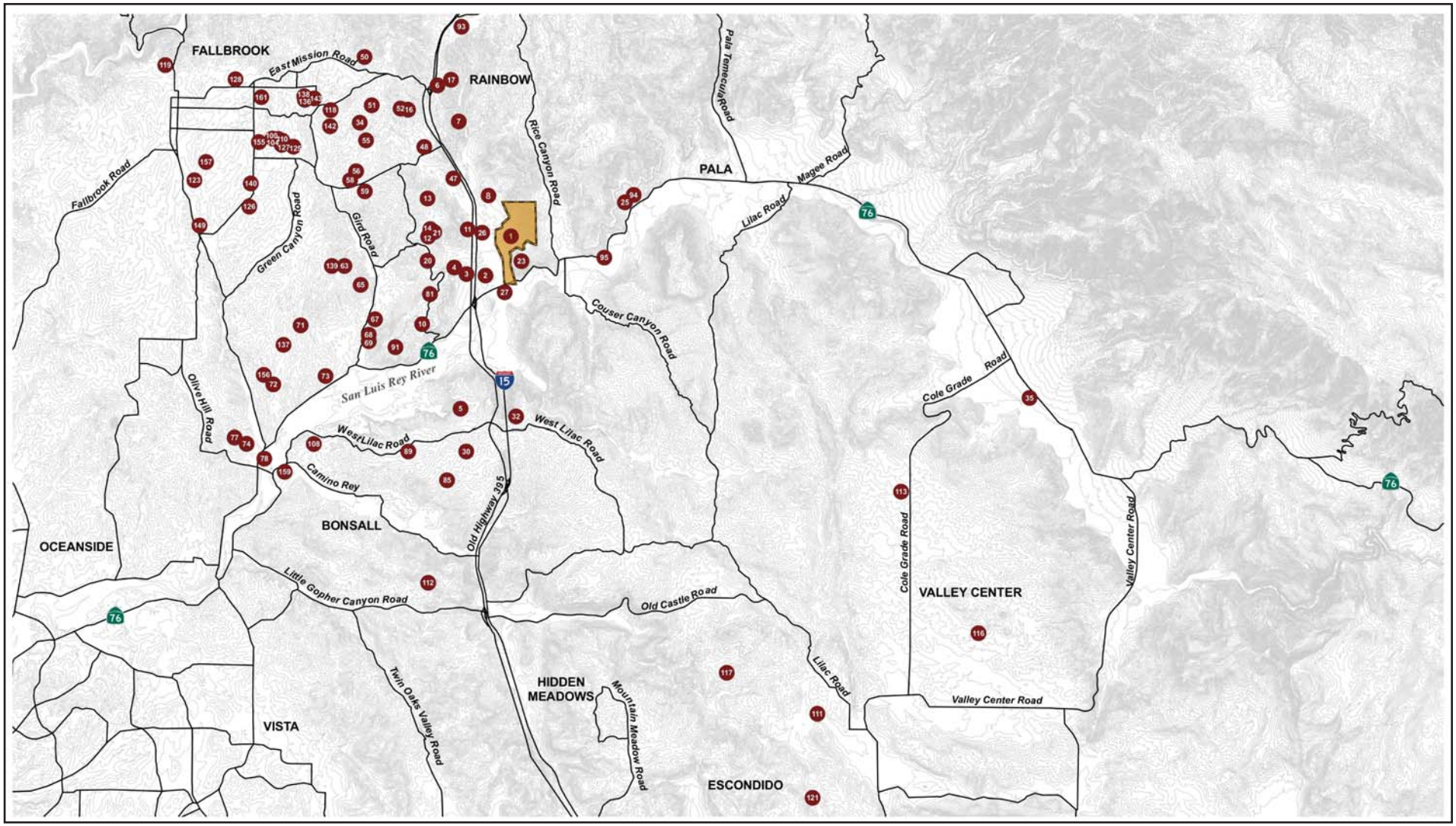
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FIGURE 3.1-7c
Impacts to Biological Resources

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Map Source: NRC, July 2009



NOTE: Numbers on dots correspond with project numbers on Table VIII.

FIGURE 3.1-8
Cumulative Projects

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TABLE 3.1-1
ON-SITE VEGETATION COMMUNITIES

Vegetation Community	Acreage
Agriculture (18100)	209.9
Non-native grassland (42200)	31.9
Coastal sage scrub (32500)	56.5
Disturbed coastal sage scrub (32500)	30.6
Southern mixed chaparral (37120)	19.6
Non-native trees (11000)	8.3
Pastureland (18310)	1.5
Coast live oak woodland (71160)	1.7
Mixed willow/Mule fat scrub (63300)	0.1
Open water ponds (13100)	0.7
Developed/disturbed areas (12000)	28.7
TOTAL	389.5

TABLE 3.1-2
ON-SITE VEGETATION COMMUNITY IMPACTS

Vegetation Community	Existing On-Site	On-Site Permanent Impacts	Preserved On-Site	Impact Neutral	On-Site Temporary Impacts
Agriculture	209.9	162.5	47.4	0.6	0.3
Non-native grassland	31.9	9.9	22.0	2.0	<0.1
Coastal sage scrub/ Disturbed coastal sage scrub	87.1	12.6	74.5	2.8	0.2
Southern mixed chaparral	19.6	2.2	17.5	0.0	0.2
Non-native trees	8.3	8.1	0.2	0.0	0.0
Pastureland	1.5	1.5	0.0	0.0	0.0
Coast live oak woodland	1.7	<0.1	1.7	0.0	0.0
Mixed willow/mule fat scrub	0.1	0.1	0.0	0.0	0.0
Open water	0.7	0.7	0.0	0.0	0.0
Disturbed/developed areas	28.7	20.3	8.4	0.5	<0.1
TOTAL ACRES	389.5	217.8	171.7	5.9	0.7

TABLE 3.1-3
PERMANENT OFF-SITE VEGETATION COMMUNITY IMPACTS

Off-site Impact	CSS	DCSS	CHP	OW	SWS	SAWRF	FWM	NNG	NNT	*S(1)*	PAS	AG	DIST	*S(2)*	Total *S{1+2}*	Listed Species*
Pala Mesa Drive (Horse Ranch Creek Road to I-15)†	0.01	0.00	0.00	0.00	0.00	2.18	0.00	3.48	0.14	5.81	0.84	1.92	0.85	3.61	**9.42**	CAGN, LBV
Pankey Road (N. Passerelle boundary to Stewart Canyon Rd.)	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.76	0.00	0.00	3.37	3.37	**4.13**	CAGN
Horse Ranch Creek Road (N. Passerelle boundary to W. Meadowood site boundary)	0.00	0.00	0.00	0.00	0.68	0.00	0.32	0.00	0.15	1.15	16.69	0.01	0.06	16.76	**17.91**	CAGN, LBV
Horse Ranch Creek Road East of PA1	0.00	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.72	0.00	0.21	0.99	1.20	**1.92**	--
Residential Connection Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93	0.00	0.00	0.93	**0.93**	CAGN
Water Tank Access Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45	0.07	1.52	**1.52**	--
Grading Along Site Edge	0.00	0.01	0.00	0.00	0.27	0.59	0.00	0.36	0.63	1.86	4.46	0.00	0.26	4.72	**6.58**	CAGN, LBV
2nd CWA Pipeline Preferred	0.31	0.01	0.00	0.20	0.00	0.00	0.00	0.64	0.05	1.21	2.82	0.21	13.43	16.46	**17.67**	CAGN
Pala Mesa Heights Drive	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.91	0.00	1.03	2.98	0.00	0.51	3.49	**4.52**	CAGN
TOTAL	1.05	0.84	0.00	0.20	0.95	2.77	0.32	5.39	1.02	*12.54*	28.72	3.80	19.54	52.06	**64.60**	--

*This table lists the off-site impacts associated with the Meadowood Project. Sensitive species listed in the table represent potential impacts to these species.

†These actions may be completed under separate permit applications; however, will be included under this permit in the event that they are not completed prior to construction of the Meadowood project.

Legend

S(1) – total acreage of CSS,DSCSS, CHP,OW, SWS, FWM, NNG, NNT

S(2) – total acreage of PAS, AG, DIST

CSS – Coastal Sage Scrub, DCSS – Disturbed Coastal Sage Scrub, CHP – Southern Mixed Chaparral, OW – Oak Woodland, SWS - Southern Willow Scrub, SAWRF – Southern Arroyo Willow Riparian Forest FWM - Freshwater Marsh, NNG – Non-native Grass, NNT – Non-native Trees, PAS – Pasture, AG – Agriculture, DIST – Disturbed/Developed/Graded

CAGN – California Gnatcatcher, LBV – Least Bell's Vireo

TABLE 3.1-4
TEMPORARY OFF-SITE VEGETATION COMMUNITY IMPACTS

Off-site Impact	CSS	DCSS	CHP	OW	SWS	SAWRF	FWM	NNG	NNT	*S(1)*	PAS	AG	DIST	*S(2)*	Total *S{1+2}*	Listed Species*
Pala Mesa Drive (Horse Ranch Creek Road to I-15)†	0.11	0.00	0.00	0.00	0.00	2.00	0.00	1.94	0.07	4.12	0.77	1.26	0.19	2.22	**6.34**	CAGN, LBV
Pankey Road (N. Passerelle boundary to Stewart Canyon Rd.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**	
Horse Ranch Creek Road (N. Passerelle boundary to W. Meadowood site boundary)	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.02	0.62	0.00	0.03	0.65	**0.67**	CAGN, LBV
Horse Ranch Creek Road East of PA1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**	--
Residential Connection Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.14	**0.14**	--
Water Tank Access Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**	--
Grading Along Site Edge	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.06	0.13	0.32	1.16	0.11	0.06	1.33	**1.65**	LBV
2nd CWA Pipeline Preferred	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**	--
Pala Mesa Heights Drive	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.16	0.15	0.00	0.03	0.15	**0.31**	CAGN
TOTAL	0.11	0.03	0.00	0.00	0.02	2.13	0.00	2.13	0.20	4.62	2.84	1.37	0.28	4.49	**9.11**	--

*This table lists the off-site impacts associated with the Meadowood Project. Sensitive species listed in the table represent potential impacts to these species.

†These actions may be completed under separate permit applications; however, will be included under this permit in the event that they are not completed prior to construction of the Meadowood project.

Legend

S(1) – total acreage of CSS,DSCSS, CHP,OW, SWS, FWM, NNG, NNT

S(2) – total acreage of PAS, AG, DIST

CSS – Coastal Sage Scrub, DCSS – Disturbed Coastal Sage Scrub, CHP – Southern Mixed Chaparral, OW – Oak Woodland, SWS - Southern Willow Scrub, SAWRF – Southern Arroyo Willow Riparian Forest FWM - Freshwater Marsh, NNG – Non-native Grass, NNT – Non-native Trees, PAS – Pasture, AG – Agriculture, DIST – Disturbed/Developed/Graded

CAGN – California Gnatcatcher, LBV – Least Bell's Vireo

TABLE 3.1-5
PROJECT IMPACTS TO VEGETATION COMMUNITIES

Vegetation Community	Existing (On-Site)	Permanent Impacts (On-site)	Permanent Impacts (Off-site)	Mitigation Ratio	Mitigation Required	Preserved (On-Site)	Impact Neutral	Off-site Mitigation
Agriculture	209.9	160.6	3.8	0:1	0.0	49.3	0.6	0.0
Non-native grassland	31.9	9.9	5.4	0.5:1	7.7	22.0	2.0	0.0
Coastal sage scrub (CSS)/Disturbed CSS	87.1	12.6	1.9	2:1	29.0	74.5	2.8	0.0
Southern mixed chaparral	19.6	2.2	0.0	0.5:1	1.1	17.5	0.0	0.0
Non-native trees	8.3	8.1	1.0	0:1	0.0	0.2	0.0	0.0
Pastureland	1.5	1.5	28.7	0.5:1	15.1	0.0	0.0	2.7[1]
Coast live oak woodland	1.7	less than 0.1	0.2	3:1	0.9	1.7	0.0	0.0
Mixed willow/mule fat scrub	0.1	0.1	0.0	3:1	0.3	0.0	0.0	0.3
Southern willow scrub	0.0	0.0	.95	3:1	2.85	0.0	0.0	2.85
Southern arroyo willow riparian forest	0.0	0.0	2.77	3:1	8.31	0.0	0.0	8.31
Freshwater marsh	0.0	0.0	0.32	3:1	0.96	0.0	0.0	0.96
Open water	0.7	0.7	0	0:1	0.0	0.0	0.0	0.0
Disturbed/developed areas	28.7	22.2	19.5	0:1	0.0	6.5	0.5	0.0
TOTAL ACRES*	389.5	217.8	64.6		65.8	171.7	5.9	15.0

*Totals may not add up correctly due to rounding.
[1]Only 4.7 acres of off-site mitigation is needed for pasture due to the amount of non-native grassland preserved on-site.
[2]Impact Neutral is included in the Preserved On-Site total.

TABLE 3.1-6
SUMMARY OF IMPACTS TO JURISDICTIONAL WATERS

Location/ Jurisdiction	Permanent Impacts to Wetlands or Vegetated Riparian	Permanent Impacts to Non-wetland Waters	Permanent Impacts to Isolated Waters	Temporary Impacts to Wetlands or Vegetated Riparian	Temporary Impacts to Non-wetland Waters	Total Impacts to Jurisdictional Waters
On-site						
ACOE	0.14	0.69		----	----	0.83
RWQCB	0.14	0.69	0.06			0.89
CDFG	0.34	0.59	----	----	----	0.93
County	---	----	----	----	----	---
Off-site						
ACOE	2.29	>0.01	----	2.04	>0.01	4.33
CDFG	2.29	>0.01	----	2.04	>0.01	4.33
County	2.29	----	----	2.04	----	4.33

TABLE 3.1-7
CUMULATIVE PROJECTS IMPACT ANALYSIS

Map Key	Project Name	Year Processed	Coastal Sage Scrub	Chaparral*	Oak Woodlands**	Riparian Habitats***	Other Wetland	Non-native Grassland	Agriculture/Pasture	Eucalyptus Woodland	Biological Impacts Not Specified
1	Meadowood	2009	X	X	X	X	X	X	X	X	
2	Campus Park West	2004	X			X		X	X		
3	Pala Mesa Highlands	2007	X		X		X	X			
4	Tedder TM	1992			X		X				
5	Hukari Subdivision	2007		X	X	X			X		
6	Fulla Fallbrook Ranch	2007	X	X	X				X		
7	Los Willows Inn and Spa	2004			X						
8	Campus Park	In Process	X			X	X	X	X		
10	Bridge Pac West 1 TPM	2006			X	X	X				X
11	Pala Mesa Resort	2007	X								
12	Lung TPM	1999									
13	Chipman TPM	2000			X						
14	Bierman TPM	2000				X					
16	Treister TPM	2003	X								

TABLE 3.1-7
CUMULATIVE PROJECTS IMPACT ANALYSIS
(CONTINUED)

Map Key	Project Name	Year Processed	Coastal Sage Scrub	Chaparral*	Oak Woodlands**	Riparian Habitats***	Other Wetland	Non-native Grassland	Agriculture/Pasture	Eucalyptus Woodland	Biological Impacts Not Specified
17	Mission Ridge Road TPM	2008	X	X	X			X			
20	Fernandez TPM	2005						X	X		
21	Rabuchin	2005					X				
23	Rosemary Mtn Aggregate Quarry	1997	X	X	X	X					
25	Prominence at Pala	2006	X	X							
26	Palomar College	2007	X			X	X	X			
27	Caltrans SR 76 Realignment	2007	X		X	X	X				
28	San Luis Rey Municipal Water District	2006									X
30	West Lilac Farms	2006			X	X		X			
32	Marquart Ranch	2007	X						X		
34	Ridge Creek Drive	2007	X		X					X	
35	Club Estates	2006						X			
47	De Jong/Pala Minor Subdivision	1999						X			
48	Crossroads Investors Minor Subdivision	2008				X					

TABLE 3.1-7
CUMULATIVE PROJECTS IMPACT ANALYSIS
(CONTINUED)

Map Key	Project Name	Year Processed	Coastal Sage Scrub	Chaparral*	Oak Woodlands**	Riparian Habitats***	Other Wetland	Non-native Grassland	Agriculture/Pasture	Eucalyptus Woodland	Biological Impacts Not Specified
49	Chaffin TPM	2005	X			X	X				
50	John Collins TPM	2001	X								
51	Brannon Trust TPM	2007	X								
52	Dien N Do TPM	2005	X	X	X			X			
55	Atteberry TPM	1999			X						
56	Johnson TPM	2006					X		X		
58	American Lotus Buddhist Associations TPM	2007	X				X				
59	Reche Road TM	2008									X
63	Cameron Subdivision	1999	X								
65	Aspel TPM	2002	X		X	X					
67	Yew Tree Spring Water Corporation	2003			X	X		X			
68	Haugh, Granger TPM	2007	X			X					
69	Brown, Lee, and Karen TPM	2007	X				X	X			
71	Surf Properties TPM	2007			X		X				

TABLE 3.1-7
CUMULATIVE PROJECTS IMPACT ANALYSIS
(CONTINUED)

Map Key	Project Name	Year Processed	Coastal Sage Scrub	Chaparral*	Oak Woodlands**	Riparian Habitats***	Other Wetland	Non-native Grassland	Agriculture/Pasture	Eucalyptus Woodland	Biological Impacts Not Specified
72	Brook Hills TM	1993									X
73	Latter Day Saints Via Monserate	2002					X				
74	Leeds and Strauss	2001	X					X			
77	Crook TPM	2001									X
78	Tabata TM	2004							X		X
81	Sumac TPM	2007									X
85	Woodhead TPM	2001							X		X
89	Sanders TPM	2004							X		X
91	Monserate TM	2006									X
93	Madrigal TPM	2006									X
94	Orange Grove Power Plant	2007	X								X
95	Gregory Landfill	In process	X	X	X		X	X			
100	Valentine Trust	2006			X					X	
104	Aguilar TPM	1998	X	X	X						
108	Bonsall Subdivision	2005	X					X			
110	VandeVegte TM	2005									X

TABLE 3.1-7
CUMULATIVE PROJECTS IMPACT ANALYSIS
(CONTINUED)

Map Key	Project Name	Year Processed	Coastal Sage Scrub	Chaparral*	Oak Woodlands**	Riparian Habitats***	Other Wetland	Non-native Grassland	Agriculture/Pasture	Eucalyptus Woodland	Biological Impacts Not Specified
111	Brook Forest	2001	X		X	X	X	X	X		
112	Choi TM	2001	X			X		X			
113	Oak Glen	2006			X				X		
116	Rabbit Run	2006									X
117	Froehlich TM	2006	X						X		
118	White Fox Run TPM	2005	X		X		X	X			
119	Baldwin TM	2006	X	X	X	X		X			
121	Orchard Vista TM	2006	X					X	X		
123	Pepper Tree Park	2005					X				
125	Uchimura TM	2003									X
126	Lash TM	2002						X			X
127	Heritage Homebuilders TM	1993			X	X					
128	Kesonovich TM	1989			X						
136	Hormuth TPM	1999			X						
137	Arkeder TPM	2002			X	X					
138	Amos Family Trust TPM	2001	X		X		X				

TABLE 3.1-7
CUMULATIVE PROJECTS IMPACT ANALYSIS
(CONTINUED)

Map Key	Project Name	Year Processed	Coastal Sage Scrub	Chaparral*	Oak Woodlands**	Riparian Habitats***	Other Wetland	Non-native Grassland	Agriculture/Pasture	Eucalyptus Woodland	Biological Impacts Not Specified
139	White TPM	2001	X				X				
140	Heritage Oaks TPM	1999			X						
142	Zebu TPM	2001	X		X						
143	Compton TPM	2004	X		X	X					
149	Pacifica Estates	2006	X				X	X			
155	Ferraro TPM	2004				X		X			
156	Palomar Dr. Subdivision	2005	X			X	X	X			
159	Golf Green Estates	2006					X				
161	The Crest	2003	X				X	X			

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3.2 Geology and Soils

Geocon, Incorporated conducted field investigations of the Project Site on July 1, 2, and 8 of 2002. These investigations consisted of a Project Site reconnaissance and the excavation of exploratory borings, trenches, and seismic refraction traverses. The purpose of this investigation was to evaluate the surface and subsurface soil and geologic conditions and to provide recommendations as to the feasibility of Project Site development. The Geotechnical Investigation (updated November 20, 2006) prepared for the Project Site is summarized below and can be found in its entirety in this EIR as Appendix G-1. Additional documents including an Addendum to the Geotechnical Investigation (September 19, 2007), Response to County Review Comments (September 16, 2008), and Response to County Review Comments for Rockfall Potential (March 31, 2011) are attached to this EIR as Appendix G-2.

3.2.1 Existing Conditions

Faults

According to a review of published geologic maps and reports (Alquist-Priolo Earthquake Fault Zoning Act, Special Publication 42, Revised 1997, Fault Rupture Hazard Zones in California), the Project Site does not lie within any special hazard area identified by the Alquist-Priolo Earthquake Fault Zoning Map. One unnamed inactive fault (California Geological Survey County Report 3, 1963, as cited in Geocon 2002) was mapped approximately three miles northeast of the Project Site, but was not evaluated since it is situated off-site and its strike does not extend into the Project Site.

There are 29 known active faults located within a search radius of 62 miles (100 kilometers) from the Project Site, and the nearest known active faults are the Temecula and Julian segments of the Elsinore Fault located approximately seven and eight miles northeast of the Project Site, respectively. Major earthquakes occurring on the Elsinore Fault or other regionally active faults located in the southern California area could subject the Project Site to moderate-to-severe ground shaking within the life span of the proposed structures.

Geology/Soils

Three surficial soil types and three geologic formations were encountered during the field investigation. Surficial soil deposits include undocumented fill, topsoil, and alluvium. Formational units include Quaternary-aged Terrace Deposits, Cretaceous-aged Bonsall Tonalite, and San Marcos Gabbro (Larsen 1948). The on-site soils consist predominantly of fine- to coarse-grained, silty sands, clayey sands, and sandy silts. These materials generally have a very low to medium expansion potential and should provide good capping material for the streets and lots.

Oversize concrete rubble and other undocumented fill are present within two westward-draining arroyos in the central portion of the Project Site. The rubble fill is estimated to be in excess of 20 feet thick in the deeper arroyos and canyons. The fills are potentially compressible and subject to collapse with an increase in moisture content.

Expansive Soils

The Project Site is located on expansive soils as defined within Table 18-I-B of the Uniform Building Code (UBC; 1994). This was confirmed by Geocon staff review of the Soil Survey for the San Diego Area, prepared by the U.S. Department of Agriculture, Soil Conservation and Forest Service dated December 1973.

Liquefaction

Liquefaction is a phenomenon where loose, saturated, and relatively cohesionless soil deposits lose strength during strong ground motions. Liquefaction analyses were conducted on the Project Site, which indicated that alluvium deposits are located below the water table. Because of the high groundwater table, the alluvium deposits, and the proximity to active and potentially active seismic areas of the County (namely the Elsinore Fault Zone), there is the potential for the Proposed Project to be susceptible to liquefaction. The areas susceptible to seismic related ground failure and/or liquefaction under current groundwater conditions include the alluvial formations that are identified on the geology map as Qal (Figure 3.2-1).

Saturated alluvium (alluvium below the water table) is generally located along the western property margin and in the southwestern portion of the Project Site. Based on Geocon's analysis, a zone of approximately 17 feet of potentially liquefiable material exists in the main drainage area at the southwestern corner of the Project Site.

Rockfall

The Project Site is on and near steep slopes with boulders/rocks that could become unstable in the event of seismic activity or heavy precipitation. The natural hillside has slope inclinations ranging between 1.3:1 and 3:1. A potential exists for rockfall off-site from the west-facing slope of Rosemary's Mountain located immediately south of Monserate Mountain. Large boulders on the order of 20 feet or greater in diameter are present on the natural slopes above the road. Figures 3.2-2 and 3.2-3 show the approximate locations of specific boulders that have been identified with potential for rockfall.

Erodibility

The entire Project Site is comprised of soils that are categorized by the Soil Survey of San Diego County as "Severely or Moderately Erodible." Some of the geologic effects created by poorly protected severely erodible soils can range from altering natural drainage features to creating environments suitable for landsliding and rockfall.

3.2.2 Guidelines for the Determination of Significance

For the purpose of this EIR, the basis for the determination of significance is the CEQA Appendix G Guidelines (Guidelines 1 through 4) and Table 18-1 of the UBC (1994).

A significant geologic/soils impact would occur as a result of proposed project implementation if it:

1. Exposes people or structures to geologic hazards such as rupture of a known earthquake fault, strong seismic shaking, landslides, mudslides, and ground failure including liquefaction;

2. Is located on a geologic unit or soils that is unstable, or that would become unstable as a result of the Proposed Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;

3. Results in substantial soil erosion or the loss of top soil; and

4. Is located on expansive soils, as defined in Table 18-1 of the UBC (1994) and does not conform with the UBC.

3.2.3 Analysis of Project Effects and Determination as to Significance

Faults and Liquefaction (Guideline 1)

A significant impact would occur if the project exposes people or structures to geologic hazards such as rupture of a known earthquake fault, strong seismic shaking, and ground failure including liquefaction.

Although the Project Site is not located within a hazard zone of the Alquist-Priolo Earthquake Fault Zone Map, it is situated relatively close to active and potentially active seismic areas of the County. Since there are no known active faults on the Project Site, the potential impact of rupture of a known earthquake fault is **less than significant**. Major earthquakes occurring on the Elsinore Fault that could subject the Project Site to moderate-to-severe ground shaking within the life span of the structures associated with the Proposed Project. The Project Site is considered to be comparable to the surrounding developed area with respect to seismic shaking. The Proposed Project design would address strong seismic shaking by ensuring that the Proposed Project design is in conformance with the UBC/CBC and the County Zoning Ordinance (see Table 1-5), as well as all recommendations found in Section 7 of the geotechnical study, thereby reducing the potential impact of strong seismic shaking to a level that is **less than significant**.

Much of the Project Site would require only a 13-foot-thick non-liquefiable layer to resist liquefaction, which currently already exists over most of the Proposed Project area. The main area of concern is the main drainage in the southwestern area of the site (near the proposed school site, and north of SR-76) which does not have enough non-liquefiable material to resist liquefaction. There are also smaller areas along the western edge of the property with similar liquefaction potential. The geotechnical report estimates that (in some areas) an 18- to 22-foot-thick non-liquefiable layer would be required in order to resist the upward pressure of the liquefying stratum for the level of ground-shaking that was assumed possible for the Project Site. Since standard design measures would not completely eliminate the risks associated with liquefaction in the southwestern and western areas of the Project Site, impacts would be **significant** (**GE-1**).

Rockfall (Guideline 2)

A significant impact would occur if the project is located on a geologic unit or soils that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

The potential exists on the Project Site for rockfall from the west-facing slope of Rosemary's Mountain due to seismic or erosional events. The identified area of having rockfall potential is not located on the Project Site and will not be impacted by grading and construction of the Proposed Project. Lots located down gradient from the potential area of rockfall include the proposed school site and residential lots 356, 383 through 396, 403, 404, and 406 through 409. These lots are located on the west side of Horse Ranch Creek Road, as shown on Figures 3.2-2 and 3.2-3. Future seismic activity or heavy precipitation/erosional events could potentially dislodge boulders.

The Proposed Project design will incorporate features, such as open space buffers and tree plantings, to reduce impacts from rockfall and soil instability. However, pursuant to Guideline 2, standard design measures would not completely eliminate risks associated with rockfall, and as such, impacts would be **significant** (**GE-2**).

Erodibility (Guideline 3)

A significant impact would occur if the project would result in substantial soil erosion or the loss of top soil.

Due to the erodible soils that exist on the Project Site, there is the potential for significant erosion impacts to occur. However, the Proposed Project design includes erosion control measures and a landscaping plan that comply with current San Diego County and Fallbrook community rules and regulations to prevent soil erosion on- and off-site (see Table 1-5). Therefore, the Proposed Project impacts would be **less than significant**.

Expansive Soils (Guideline 4)

A significant impact would occur if the project is located on expansive soils, as defined in Table 18-1 of the UBC (1994) and does not conform with the UBC.

The Project Site is located on expansive soils as defined within Table 18-I-B of the UBC. The Proposed Project will comply with the improvement requirements identified in the 1997 UBC. The geotechnical study performed by Geocon Incorporated found that complete removal and recompaction of the compressible deposits, which are found in several locations across the Project Site, will be required in order to support structural improvements. Because of the presence of groundwater in the main drainages, complete removal of the alluvium will likely not be possible. Compressible deposits and expansive soils would be addressed by remedial grading and other Proposed Project design considerations listed in Table 1-5. These specific design measures are required to reduce the potential for hazards associated with both cut and fill slopes and seepage and perched water. Implementation of these design features assure that impacts relating to expansive soils would be **less than significant.**

3.2.4 Cumulative Impact Analysis

As discussed above the Proposed Project could result in potentially significant geological hazards due to soil liquefaction and rockfall. This significant impact is reduced to a level of less than significance through the implementation of mitigation measures, discussed below. Additionally, Project Site conditions relating to erosion and expansive soils are less than significant due to erosion control measures, landscaping plans, and conformance with current San Diego County and Fallbrook community rules and regulations, as well as the CBC/UBC. Based on the strict requirements identified in the listed National Pollutant Discharge Elimination System (NPDES) permits and the fact that other planned and proposed developments in the Proposed Project vicinity would be required to implement similar controls, no significant cumulative erosion and sedimentation impacts are anticipated. As with the Proposed Project, cumulative area projects with similar potential would be required to implement similar site-specific measures to address potential impacts to geology and soil. Because of the site-specific nature of these potential hazards and the measures to address them, there would be no connection to similar potential issues or cumulative effects to or from other properties. Based on these requirements, cumulative impacts to geology would result from development of the Proposed Project would be **less than significant**.

3.2.5 Mitigation Measures Proposed to Minimize the Significant Effects

M-GE-1 The applicant shall raise the existing grade while also removing and re-compacting the alluvium above the groundwater table to increase the overburden pressure over the liquefiable deposits as recommended by the geotechnical engineer.

M-GE-2 Mitigation of rockfall potential shall consist of the following:

- The boulders identified as having a high potential of rockfall in the Response to County of San Diego Review Comments for Rockfall prepared by Geocon Incorporated dated March 31, 2011 shall be broken and removed from the slope or alternatively rock bolted to the slope as part of the grading of the site.

- Boulders identified as having a less than significant rockfall potential shall be tested by applying pressure with an excavator. If the boulders move, they shall be mitigated using the same techniques as described for boulders with high potential for rockfall. Boulders identified as having a less than significant rockfall potential shall be monitored during grading after any heavy rains if they should occur. If any undermining on the downhill side of any of the boulders has occurred, removal and/or breaking of the boulder(s) as recommended shall be performed to mitigate the rockfall hazard.

- A letter of certification shall be provided by a California Registered Professional Engineer or Certified Engineering Geologist to the *[DPLU, PCC]*, which states that the identified rockfall hazards at the site have been mitigated to a level of less than significant and any proposed buildings are safe for human occupancy.

- The above certification letter shall be provided prior to approval of any building plans and issuance of any building permit. The *[DPLU, PCC]* shall review the rockfall hazard certification report for compliance with this condition.

3.2.6 Conclusion

Implementation of the Proposed Project could result in risks associated with liquefaction, especially along the main drainage in the southwestern area of the Project Site, as well as other smaller areas along the properties western edge (GE-1). M-GE-1 requires the inclusion of site-specific geotechnical design criteria beyond standard design measures including the requirement to raise the grade of the Proposed Project and the re-compacting of soils over liquefiable deposits. Implementation of these additional measures, as detailed in Section 7 of the geotechnical report, would reduce potentially significant impacts to below a level of significance.

Implementation of the Proposed Project could result in risks associated with rockfall due to seismic activity or heavy precipitation/erosional events (GE-2). M-GE-2 provides specific mitigation that would reduce the hazard of rockfall by assuring that boulders identified as potentially dangerous are removed or broken down, testing of smaller boulders and monitoring after heavy rainfall. Implementation of these mitigation measures would reduce potentially significant impacts to below a level of significance.

No other soil or geologic conditions were encountered that would prevent the development of the Proposed Project for residential uses provided the Project Site is graded in accordance with the UBC/CBC, the County Grading Ordinance, and the geotechnical report's recommendations (Section 7). These recommendations are listed as project design considerations in Table 1-5 and would preclude impacts associated with geologic hazards resulting from implementation of the Proposed Project.

Image source: Copyright 2007 AirPhotoUSA, LLC, All Rights Reserved (flown April 2007)

Project Boundary

Geological Areas (approximate)

Qudf	UNDOCUMENTED FILL
Qudfr	UNDOCUMENTED FILL RUBBLE (Mostly oversize concrete chunks)
Qal	ALLUVIUM
Qt	TERRACE DEPOSIT
Qtd	LOCALIZED "HARDPAN" OR OVERSIZE
Kb	BONSALL TONALITE
Kbg	BONSALL TONALITE GNEISS
Ksm	SAN MARCOS GABBRO

0 Feet 600

RECON

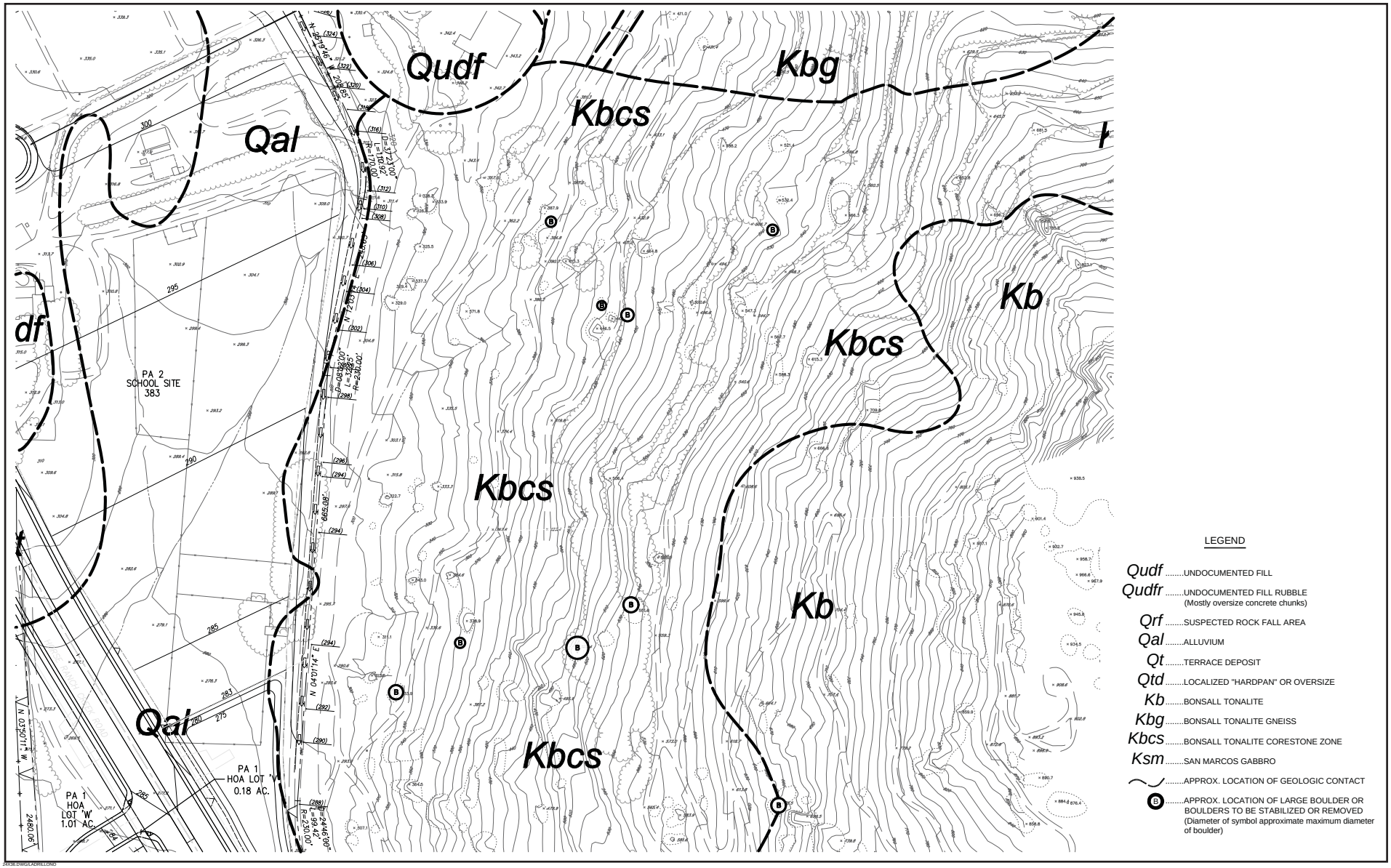
M:\JOBS2\3706\common_gis\fig3.2-1.mxd 11/11/2010

FIGURE 3.2-1

Geology

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Map Source: Geocon Inc., September, 2008



0 Feet 120

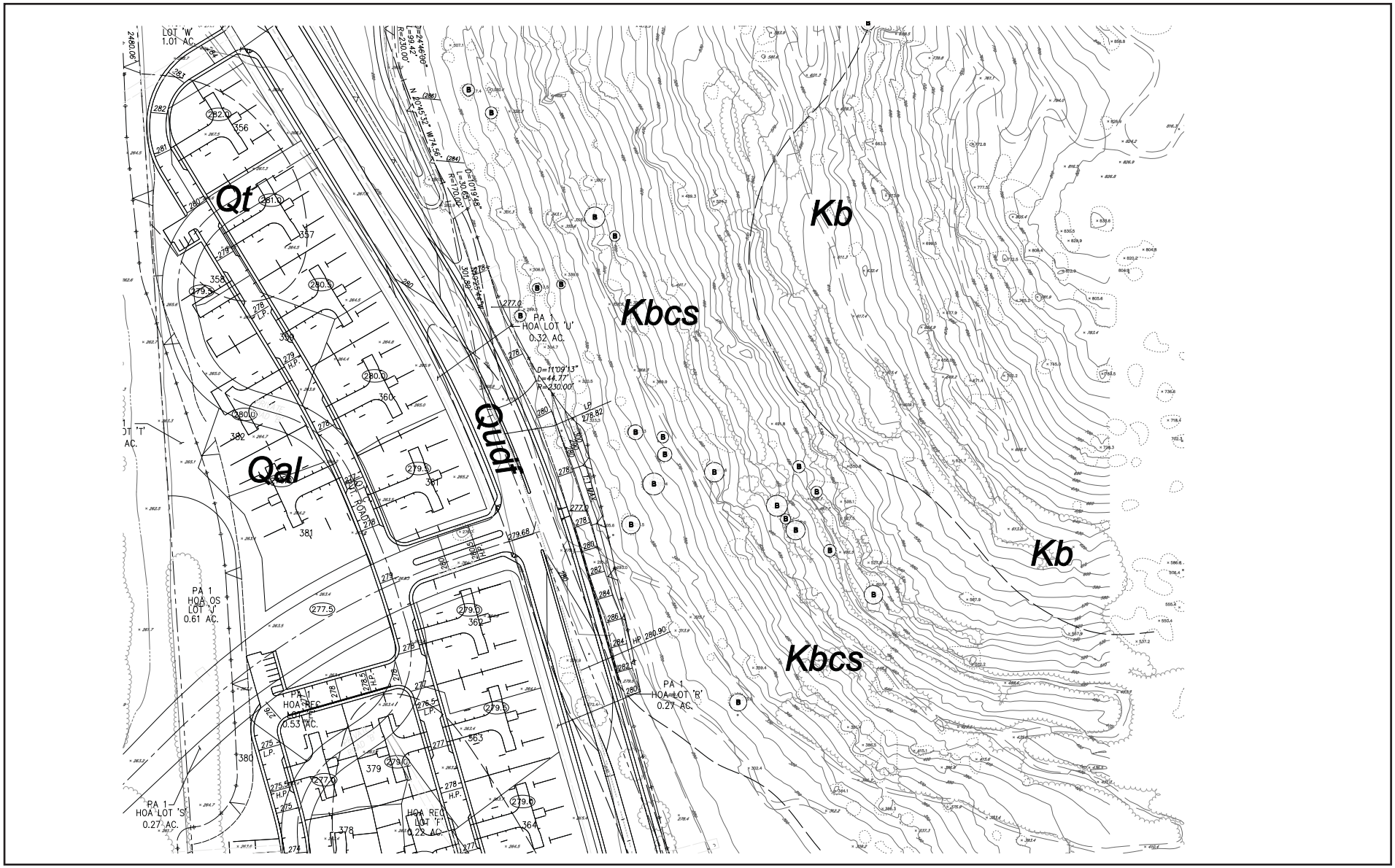
FIGURE 3.2-2

Boulders with Rockfall Potential (North)

RECON

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Map Source: Geocon Inc., September, 2008



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FIGURE 3.2-3

Boulders with Rockfall Potential (South)

RECON

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3.3 Cultural Resources

The assessment of the Proposed Project's potential to have an adverse effect on cultural resources on- and off-site is based on the Cultural Resources Survey, Archaeological Testing, and Historic Building Evaluation for the Proposed Meadowood Project, San Diego County, California Volume I (ASM Affiliates, Inc. 2009). This report is included as Appendix H to this EIR with confidential records and maps on file at the County of San Diego, Department of Planning and Land Use and deposited with the South Coastal Information Center (SCIC).

3.3.1 Existing Conditions

The presence and significance of existing cultural resources associated with the Proposed Project were determined in accordance with the regulations and research methods outlined below.

Existing Regulations

The California Register of Historic Resources (CRHR) establishes the evaluative criteria used by CEQA in defining an historic resource. An historic resource is significant if it meets one or more of the criteria for listing in the CRHR. Resources are eligible for listing on the CRHR if they:

1. Are associated with events that have made a significant contribution to the broad patterns of local or regional history and cultural heritage of California or the United States.

2. Are associated with the lives of persons important to the nation or to California's past.

3. Embody the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

4. Have yielded, or may be likely to yield, information important in prehistory or history of the state or nation.

The County also has a series of criteria to determine the significance of historical resources for inclusion on the San Diego County Local Register of Historic Resources. These guidelines closely follow those for CEQA, but are focused on resources of County significance. Historic resources are eligible for this register if they:

1. Are associated with events that have made a significant contribution to the broad patterns of San Diego County's history and cultural heritage;

2. Are associated with the lives of persons important to the history of San Diego County or its communities;

3. Embody the distinctive characteristics of a type, period, San Diego County region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4. Have yielded, or may be likely to yield, information important in prehistory or history.

The County RPO has a set of criteria that must be addressed for any cultural resources encountered during a survey. These ask the following questions in regard to the resource.

Is the cultural resource:

1. A location of past intense human occupation where buried deposits can provide information regarding important scientific research questions about prehistoric or historic activities that have scientific, religious, or other ethnic value of local, regional, state, or federal importance?

2. A prehistoric or historic district, site, interrelated collection of features or artifacts, building, structure, or object included in or eligible for inclusion in the National Register of Historic Places or the State Landmark register?

3. Included or eligible for inclusion, but not previously rejected, for the San Diego County Historical Site Board List?

4. A location of past or current sacred religious or ceremonial observances protected under Public Law 95-341, the American Indian Religious Freedom Act or Public Resources Code 5097.9, such as burial(s), pictographs, petroglyphs, solstice observatory sites, sacred shrines, religious ground figure, and natural rocks or places which are of ritual, ceremonial, or sacred value to any prehistoric or historic ethnic group?

Methods

Research included a review of institutional records and reports concerning the project area and immediate vicinity, a field survey, surface mapping, limited artifact collection, photographic documentation, historic structures assessment, and excavation of 13 backhoe trenches and 35 shovel test pits (STPs) to determine the extent, integrity, and constituents of site deposits. Site record forms, including updates, were prepared for CA-SDI-682 Loci A, B and C and for the Rancho San Luis Rey/Pankey Ranch building complex, and submitted to the SCIC of the California Historic Resources Information System, Department of Parks and Recreation.

The evaluation of cultural resources is in conformance with the County RPO, Section 21083.2 of the Public Resources Code, and CEQA. Statutory requirements of CEQA Guidelines Section 15064.5 were followed in the evaluation of the significance of the cultural resources.

Records Search Result

On-site

According to the records on file at the SCIC, there have been 16 cultural resource surveys conducted within a one-mile radius of the Project Site. Three of the studies overlapped portions of the Project Site (RECON 1982; Rosenthal et al. 1987; WESTEC 1980). Two studies included archaeological survey of the western edge of the Proposed Project (RECON 1982; WESTEC 1980). Rosenthal et al. (1987) conducted an archaeological survey of Rosemary's Mountain Rock Quarry for proposed rock mining operations, which intersected a portion of the Project Site at the northern base of Rosemary's Mountain Rock Quarry. None of the surveys identified cultural resources within the Project Site.

The SCIC record search showed a total of 13 previously recorded archaeological sites within a one-mile radius of the Proposed Project; 12 prehistoric sites and one historic site. Eight of the prehistoric sites consist of bedrock milling features and associated artifact scatters, one of bedrock milling features and pictographs, one consists of only bedrock milling, and one consists exclusively of pictographs. One prehistoric site, CA-SDI-682, is a large habitation site associated with the ethnographic Luisesiño Vvillage of Tom-Kav. A portion of CA-SDI-682 is mapped extending into the southernmost portion of the Project Site. The single recorded historic site is the Higgins Family cemetery.

The Project Site also appears to include the original location of Historic Period Rancho Monserrate Adobe. The Rancho Monserrate ranch house probably existed in the southeastern corner of the Project Site. No physical evidence of the adobe has been found, and any remains were probably destroyed by the construction of the Pankey Ranch complex.

Off-site

According to the record search conducted at SCIC, a total of 27 previously recorded sites are situated within a one-mile radius from the Proposed Project's off-site improvements. Of the sites recorded, 22 are prehistoric and five are historic. The majority of the prehistoric sites are bedrock mining sites that could represent short-term or temporary campsites. There are also a relatively high number of rock art sites located within a one-mile radius of the Project Site.

Survey Results

On-site

Two cultural resources were encountered during the survey of the Project Site: one historic and one prehistoric site. The prehistoric site, CA-SDI-682 (Loci A, B, and C), also known as the Pankey Site, is a well-known site excavated and reported by True et al. (1993).

The survey also identified a new site, the Rancho San Luis Rey/Pankey Ranch building complex. A description of the sites is included in Table 3.3-1.

TABLE 3.3-1
RECORDED ARCHAEOLOGICAL SITES WITHIN A 1-MILE RADIUS OF THE PROJECT AREA

Resource # CA-SDI-	Description	National Register of Historic Places Status
314	Pictographs	Indeterminate
682 (Pankey Site)	Large Habitation Site	Ethnographic Village Eligible
683	Bedrock Milling and Artifact Scatter	Indeterminate
684	Bedrock Milling and Artifact Scatter	Indeterminate
744/12584	Bedrock Milling and Artifact Scatter	Not Evaluated
773	Bedrock Milling	Indeterminate
8871	Bedrock Milling and Artifact Scatter	No Determination
9854	Bedrock Milling and Artifact Scatter	Indeterminate
10861	Bedrock Milling and Artifact Scatter	Indeterminate
12585	Bedrock Milling and Artifact Scatter	Not Evaluated
14585	Bedrock Milling and Artifact Scatter	Indeterminate
14607	Historic Cemetery	Indeterminate
14609	Bedrock Milling and Pictographs	Not Evaluated

In addition, in late January 2011, just prior to Palomar College's site preparation for the planned Horse Ranch Creek Road grading work, human remains were identified when a private citizen removed a tree. The human remains were located within the road right-of-way of the approved Horse Ranch Creek Road (approval under Palomar College L-Grade permit) in the vicinity of SR-76. The remains would be associated with the prehistoric site, CA-SDI-682 (Loci A, B, and C), discussed above. The County Coroner was contacted, who determined that the human remains are potentially Native American. Based on this determination, the Native American Heritage Commission (NAHC) was contacted and they identified the Most Likely Descendent (MLD) as the San Luis Rey Band of Mission Indians (SLRBMI). In addition, the NAHC determined that the area is a "Sacred Site." However, in a letter dated June 13, 2011 responding to a written inquiry from the County's Department of Planning and Land Use, the ~~Native American Heritage Commission~~ NAHC indicated that the Sacred Site documentation for CA-SDI-682 was not recorded with the~~ Native American Heritage Commission~~ NAHC, but with the California Historical Information System (CHRIS) at San Diego State University. When County personnel inquired of CHRIS as to the records of CA-SDI-682 being recorded and on file with CHRIS, County staff was informed that no such records were on file with CHRIS. Therefore, no written documentation has been identified that would support a sacred site determination for CA-SDI-682.

The protocols and mitigation that are required in the event that human remains are discovered as specified in the environmental document that was certified by Palomar College and as required under State Law have been followed. Horse Ranch Creek Road is to be constructed by Palomar College. An L-Grade permit has been approved by the County. L-Grade permits are exempt from the RPO.

Off-site

No new or previously recorded cultural resources were identified during the survey of the

Proposed Project off-site improvement areas.

Native American Consultation

Since the discovery of human remains in late January 2011, consultation as required under CEQA Section 15064.5(e) has taken place. Protocols and requirements as identified in the environmental document certified by Palomar College and as required under CEQA and State Law have been followed. The Palomar College project anticipated the discovery of cultural resources as part of the development of the project. As such, mitigation for the unforeseen discovery of buried resources was made a condition of approval. Similarly, the Proposed Project will be conditioned with the same requirements.

3.3.2 Guidelines for the Determination of Significance

For the purpose of this EIR, the basis for the determination of significance is the County's Guidelines for Determination of Significance, Cultural Resources, adopted September 26, 2006.

A significant cultural resource impact would occur if:

1. The project causes a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the State CEQA Guidelines. This shall include the destruction, disturbance, or any alteration of characteristics or elements of a resource that cause it to be significant in a manner not consistent with the Secretary of Interior Standards.

2. The project causes a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the State CEQA Guidelines. This shall include the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains or has the potential to contain information important to history or prehistory.

3. The project disturbs any human remains, including those interred outside of formal cemeteries.

4. The project proposes activities or uses damaging to significant cultural resources as defined by the Resource Protection Ordinance and fails to preserve those resources.

3.3.3 Analysis of Project Effects and Determination as to Significance

According to CEQA Guidelines Section 15126.4(b)(3), "public agencies should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature and requires the consideration of preservation in place as the preferred manner of mitigation and data recovery, only if preservation is not feasible."

An analysis of each site is provided below along with a determination as to the significance of the site, pursuant to the CEQA Guidelines Section 15064.5 and the County RPO.

Historic Resources (Guideline 1)

A significant impact would occur if the project would cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5. This shall include the destruction, disturbance, or any alteration of characteristics or elements of a resource that cause it to be significant in a manner not consistent with the Secretary of Interior Standards.

On-site

As a result of the cultural resources survey, one historic resource was documented and evaluated for significance. This historic resource is a group of historic buildings associated with Rancho San Luis Rey/Pankey Ranch.

A second, potential historic resource was documented during the archival research for the Proposed Project. The Project Site appears to include the location of Historic Period Rancho Monserrate Adobe. No physical indication of the adobe was found during the ASM survey, but map and literature research shows that the adobe was probably located in the southeastern portion of the Project Site. Since there is no surface indication of the Monserrate Adobe, no significance evaluation was completed.

These sites are summarized below along with a determination as to the significance of the sites. A detailed discussion of each site can be found in the cultural resources study (see Appendix H).

Non-significant Historic Resources

A total of 13 historic period structures associated with the Rancho San Luis Rey/Pankey Ranch were identified as present or previously recorded on the Project Site, as identified by the field survey and archival research. A total of six of the 13 historic structures on the Project Site were evaluated for significance according to CEQA Section 15064.5 and the RPO criteria. These six buildings were more than 50 years old.

Five of the six buildings were constructed in the late 1920s or early 1930s. They were associated with Rancho San Luis Rey, a thoroughbred breeding and training facility owned and operated by Charles E. Cooper. The historic buildings evaluated include a bungalow, a bunkhouse, two small garages, a rustic barn, and a concrete refrigeration room. None of the historic buildings located with the Project Site appear to be eligible for the California Register or the Local Register.

The information recovered during the site evaluation indicates that the historical resources found on the Project Site: (1) are not associated with events that have made a significant contribution to the broad patterns of California's history, (2) are not associated with the lives of persons important in our past, (3) does not embody the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values, and (4) lacks the potential to further answer questions related to understanding the history of the area. Because these cultural resources are evaluated as not important resources according to CEQA and RPO, any impacts incurred through the Proposed Project implementation would be **less than significant**.

Significant Historic Resource

Based on study of historic maps, the Rancho Monserrate Adobe may be located in the site of the current Pankey Ranch buildings on the Project Site. The adobe was occupied between 1846 and 1863. A second house, Morel's house, was also located on the Project Site between 1869 and 1896. Although there are no standing remains of either building, there is the possibility that subsurface foundations, trash pits, privies, or other features may be present. If such features are present subsurface, they could provide significant insight into life during the late Mexican and early American periods in San Diego County.

Because there was no evidence of the Monserrate Adobe, no evaluation could be done and the questions normally addressed to determine the significance of the resource cannot be addressed at this time. Theoretically, the Monserrate Adobe would be significant under criteria 1 and 4 of the CEQA criteria: (1) The adobe is associated with events that have made a significant contribution to the broad patterns of California's history, in this case the late Mexican Period and transition into the American Period and (4) Subsurface deposits may provide information to further answer questions related to understanding the history of the area and life in rural San Diego County in the late Mexican Period and transition into the American Period. Thus, implementation of the Proposed Project could impact subsurface deposits associated with the adobe, resulting in a **significant** impact **(CR-1)**.

A discussion related to Human Remains is provided under Guideline 3, below.

Off-site

No new or previously recorded historical resources were identified within the off-site improvement areas (roads, connection to the Second Aqueduct and pipelines) for the Proposed Project. No impacts to historical resources would occur through Proposed Project implementation of off-site improvements. If the alternative connection to the First Aqueduct is selected, additional surveys for cultural resources will be required.

Archaeological and RPO Resources (Guidelines 2 and 4)

A significant impact would occur if the project would cause a substantial adverse change in the significance of an archaeological resource, pursuant to the CEQA Guidelines Section 15064.5. This shall include the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains or has the potential to contain information important to history or prehistory. In addition, a significant impact would occur if the project proposes activities or uses damaging to significant cultural resources as defined by the RPO and fails to preserve those resources.

On-site

As a result of the cultural resources survey, archival research, and subsurface testing of the Project Site, the boundaries of the previously recorded prehistoric large habitation site/ethnographic village (CA-SDI-682), also known as the Pankey site, were extended west of the ranch road to encompass new archaeological deposits discovered by ASM. The Pankey site was identified as a significant site during the records search, literature

review, field survey, and testing. The site is summarized below along with a determination as to the significance of the site. A detailed discussion can be found in the Cultural Resources Report (see Appendix H).

Three loci (Loci A, B, and C) associated with the CA-SDI-682 were identified during the cultural survey of CA-SDI-682. Loci A and B of this site contain pockets of midden deposits less than 300 square meters in size. These sites are considered significant resources, as defined by the RPO, because they may represent a location of past intense human occupation where buried deposits can provide information on important scientific research questions about prehistoric or historic activities that have scientific, religious, or other ethnic value of local, regional, state, or federal importance. Pursuant to the RPO, impacts to significant cultural resources must be avoided. Therefore, implementation of the Proposed Project, could result in a **significant impact** to these resources **(CR-2)**.

Locus C of CA-SDI-682 consists of sparse, deeply buried deposits, probably covered by extensive colluvial deposition. Due to the deeply buried nature of the deposit, it is possible that undetected, intact archaeological deposits exist below the ground surface. Implementation of the Proposed Project could result in a **significant impact** to these resources **(CR-3)**.

Other than those areas identified as containing deposits above, the survey showed that ~~there~~ the balance of the site tested contained only sparse to no cultural materials. No midden deposits that would normally be present at a significant site of continuous occupation were present.

Off-site

No new or previously recorded archaeological resources or RPO significant cultural sites were identified within the off-site improvement areas for the Proposed Project. However, the Proposed Project was identified to have the potential to impact buried deposits within the off-site areas due to the large number of cultural resources in the vicinity, thus impacts to unidentified resources would be **significant (CR-4)**.

Human Remains (Guideline 3)

A significant impact would occur if the project would disturb any human remains, including those interred outside of formal cemeteries.

On-site

No evidence of human remains, including those interred outside of formal cemeteries, was discovered during the records search, literature review, field survey, or site testing and evaluation. Although there is no known evidence that the Project Site was used by Native Americans for religious, ritual, or other special activities, in late January 2011, just prior to Palomar College's site preparation for the planned Horse Ranch Creek Road grading work, remains were identified when a private citizen removed a tree. As such, the potential for further discoveries of human remains is likely resulting in a **significant impact** (**CR-5**).

Off-site

No evidence of human remains was discovered during the evaluation of the off-site improvements areas for the Proposed Project. Should human remains be found, this would be a **significant impact (CR-5).**

3.3.4 Cumulative Impact Analysis

The importance of cultural resources is based on the information they contain. A cumulative loss of that information would be considered a significant impact. Excavation, while destroying the preserved nature of land containing the resource, allows the study of the information they contain. This information is then preserved through data recovery, significance testing, and curation.

The cumulative study area includes the study area that allows for the reasonable capture of prehistoric and historic settlement patterns. By analyzing sites within the study area, it can be determined whether implementation of the project would result in a cumulative loss of information.

The Proposed Project site contains archaeological site CA-SDI-682, which is both a CEQA and RPO significant cultural resource because of its potential to provide important information about scientific research questions. Impacts to this site would be mitigated to below a level of significance through placement of the site within a conservation easement. All other potentially significant direct and indirect impacts would be mitigated through the monitoring of grading activities by a project archaeologist.

The cumulative projects in the vicinity of the Proposed Project are discussed in Section 1.7 “List of Past, Present, and Reasonably Anticipated Future Projects in the Project Area,” as listed in Table 1-7 and shown in Figure 1-19. The SCIC records search revealed a total of 12 prehistoric archaeological sites and one historic site within the Proposed Project’s cumulative study area for archaeological impacts. The lone historical site is the Higgins family cemetery, recorded on a ridge above the San Luis Rey River floodplain approximately one mile east of the Project Site. The majority of the archaeological resources in the Proposed Project vicinity consisted of bedrock milling sites recorded at the base of mountains along the San Luis Rey River. Cultural remains at these sites typically consisted of bedrock mortars and slicks, Tizon Brown ware ceramics, ground stone implements, flaked stone tools and debitage, fire-affected rock, vertebrate and invertebrate faunal remains, and midden soils. Three typical bedrock milling sites (CA-SDI-10,861, CA-SDI-8871, and CA-SDI-773) are recorded at the toe of Monserrate Mountain within approximately 600 meters of the Proposed Project. Pictographs were also recorded at two of the sites (CA-SDI-314 and CA-SDI-14,609). The pictographs of CA-SDI-314 are recorded at the base of Rosemary’s Mountain Rock Quarry, approximately 300 meters east of the Proposed Project. The remaining cultural resources in the vicinity of the Proposed Project (see Table 3.3-1) were determined not to be significant cultural resources.

Because the Proposed Project and those projects within the cumulative impact area have been examined for their significance, there is no cumulative loss of information associated with their development. Additionally, should new resources be discovered during development within the cumulative impact area, site-specific measures necessary to evaluate and collect relevant information would likely occur. The Proposed Project

would not cumulatively contribute to a significant impact. Therefore, impacts would be **less than significant**.

3.3.5 Mitigation Measures Proposed to Minimize the Significant Effects

Historical Resources

M-CR-1 A County-approved archaeologist and a Luiseño Native American monitor shall monitor grading in the vicinity of the mapped location of the Monserrate Adobe (refer to Figure 35 in Appendix H), as well as the area north of SR-76. A Monitoring Discovery Plan shall be prepared prior to commencement of construction activity, to be put in use in the event historic deposits are discovered. All historic artifacts recovered during all phases of survey, testing, and grading monitoring shall be curated according to current professional repository standards. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San Diego County that meets federal standards per 36 CFR Part 79, to be accompanied by payment of the fees necessary for permanent curation. All prehistoric artifacts recovered during all phases of survey, testing, and grading monitoring shall be curated with a Luiseño Native American Tribe. The collections and associated records shall be transferred to a Luiseño Native American Tribe within San Diego County.

If human remains are encountered, all ground-disturbance activities in the immediate vicinity of the discovery shall be halted and all requirements under Public Resources Code section 5097.98 and the County Guidelines for Cultural Resources shall be followed.

Archaeological Resources

M-CR-2a To preserve the integrity of CA-SDI-682, the applicant shall cap Loci A and B per County of San Diego standards, landscaped as part of the overall development and placed in a conservation open space easement. A Preservation Plan describing the methods and ultimate disposition of the capped site area has been prepared and is included as Appendix H of the Cultural Resources Report. The location of the conservation open space easement is shown in Figure 4 of this Plan. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, they will be responsible for mitigation associated with Locus B, which entails capping, temporary fencing, and open space easement dedication.

M-CR-2b For the protection of archaeological site CA-SDI-682, Loci A and Loci B, the applicant shall prepare and implement a temporary fencing plan during any grading activities within one hundred feet. The fencing plan shall be prepared in consultation with a County-approved archaeologist and a Luiseño Native American representative to the satisfaction of the Director of the Department of Planning and Land Use. The fenced area should include a buffer sufficient to protect the archaeological site. The fence shall be installed under the supervision of the qualified

archaeologist prior to commencement of grading or brushing and be removed only after grading operations have been completed.

M-CR-3 A County-approved archaeologist and a Luiseño Native American representative shall monitor grading in the vicinity of Loci C, as well as the area north of existing SR-76. A Monitoring Discovery Plan shall be prepared prior to commencement of construction activity, to be put in use in the event archaeological deposits are discovered. All artifacts recovered during all phases of survey, testing, and grading monitoring shall be curated with a Luiseño Native American Tribe ~~according to current professional repository standards~~. The collections and associated records shall be transferred ~~including title,~~ to a Luiseño Native American Tribe ~~n appropriate curation facility~~ within San Diego County ~~that meets federal standards per 36 CFR Part 79, to be accompanied by payment of the fees necessary for permanent curation~~.

If human remains are encountered, all ground-disturbance activities in the immediate vicinity of the discovery shall be halted and all requirements under Public Resources Code section 5097.98 and the County Guidelines for Cultural Resources shall be followed.

M-CR-4 A County-approved archaeologist and a Luiseño Native American representative shall monitor grading and subsurface excavation in off-site areas. All artifacts recovered during all phases of survey, testing and grading monitoring shall be curated with a Luiseño Native American Tribe ~~according to current professional repository standards~~. The collections and associated records shall be transferred ~~including title,~~ to a Luiseño Native American Tribe ~~n appropriate curation facility~~ within San Diego County~~, to be accompanied by payment of the fees necessary for permanent curation~~.

If human remains are encountered, all ground disturbance activities in the immediate vicinity of the discovery shall be halted and all requirements under Public Resources Code section 5097.98 and the County Guidelines for Cultural Resources shall be followed.

M-CR-5 A County-approved archaeologist and a Luiseño Native American representative shall monitor grading and subsurface excavation in on- and off-site areas not covered by CR-1 and CR-3. All artifacts recovered during all phases of survey, testing, and grading monitoring shall be curated with a Luiseño Native American Tribe ~~according to current professional repository standards~~. The collections and associated records shall be transferred ~~including title,~~ to a Luiseño Native American Tribe ~~n appropriate curation facility~~ within San Diego County~~, to be accompanied by payment of the fees necessary for permanent curation~~.

If human remains are encountered, all ground disturbance activities in the immediate vicinity of the discovery shall be halted and all requirements under Public Resources Code section 5097.98 and the County Guidelines for Cultural Resources shall be followed.

3.3.6 Conclusion

Implementation of the Proposed Project could result in significant impacts to subsurface deposits associated with the undiscovered whereabouts of the Rancho Monserrate Adobe (CR-1). M-CR-1 requires an archaeological monitor to be present for all grading activities in the vicinity of the adobe. This measure assures that grading will be halted or diverted should any discovery be made. The measure further assures that any findings are recovered, documented, and preserved. With the implementation of this measure, potentially significant impacts will be reduced to a level that is less than significant.

Archaeological site (CA-SDI-682) was identified as a CEQA and RPO significant resource (CR-2). M-CR-2 requires the placement of this resource in a conservation open space easement and cap it with a minimum of 50 cm of clean fill. This measure will assure that the site will remain preserved. With the implementation of this measure, potentially significant impacts would be reduced to a level that is less than significant.

Implementation of the Proposed Project could result in significant impacts to undetected archaeological deposits located underground within Loci C of the known site (CA-SDI-682) (CR-3), construction of off-site improvement areas (CR-4), and could result in the uncovering of human remains during on- and off-site grading activities (CR-5). The recent discovery of human remains does not change either the significance or the mitigation regarding unknown artifacts. This is because the protocols and requirements, as required under CEQA and State Law, have been followed and will be in place should further remains and/or artifacts be discovered. Such protocols and requirements set forth the necessary legal steps that are followed in the event of the discovery of artifacts or human remains, ensuring that appropriate mitigation is followed pursuant to State law. M-CR-3, M-CR-4 and M-CR-5 require an archaeological monitor to be present for all grading activities. This measure assures that grading will be halted or diverted should any discovery be made. The measure further assures that any findings are recovered, documented, and preserved. In the event that further human remains or artifacts are unearthed during grading activities, the County Coroner and the NAHC would be contacted to ensure that the proper steps are taken. Based on assessed significance, the discovered site would be avoided or recovery would be allowed and not destroyed during Project grading. With the implementation of this measure, potentially significant impacts will be reduced to a level that is less than significant.

3.4 Noise

This section summarizes the acoustical study for the Proposed Project prepared by RECON (2009). The complete technical report is included in this EIR as Appendix I.

3.4.1 Existing Conditions

Ambient noise in the vicinity of the Project Site is generated by traffic on SR-76 and the I-15. In addition, the Proposed Project is situated between several planned developments which will eventually contribute to the ambient noise levels: Palomar College North Education Center, Campus Park, and Campus Park West. The approved Rosemary's Mountain Rock Quarry to the south and east is also a potential noise source.

Existing Regulations

Traffic-generated Noise

Noise standards applicable to traffic-generated noise are expressed in terms of the community noise equivalent level (CNEL). The CNEL is a 24-hour A-weighted average sound level [dB(A) L_{eq}] from midnight to midnight obtained after the addition of five decibels to sound levels occurring between 7:00 P.M. and 10:00 P.M. and of 10 decibels to the sound levels occurring between 10:00 P.M. and 7:00 A.M. A-weighting is a frequency correction that often correlates well with the subjective response of humans to noise. Adding five decibels and 10 decibels to the evening and nighttime hours, respectively, accounts for the added sensitivity of humans to noise during these time periods.

The noise level standards for the County of San Diego are defined in the County of San Diego's adopted General Plan Noise Element. The County's exterior noise level standard for noise sensitive land uses (NSLU), which include residences, is 60 CNEL. If the acoustical study shows that noise levels at any NSLU will exceed CNEL equal to 60 dB(A), the development should not be approved unless the following findings are made:

A. Modifications to the development have or will be made that reduce the exterior noise levels below CNEL equal to 60 dB(A); or

B. If with current noise abatement technology it is infeasible to reduce exterior CNEL to 60 dB(A), then modifications to the development have or will be made that reduce interior noise below CNEL equal to 45 dB(A). Particular attention shall be given to noise-sensitive interior spaces such as bedrooms.

C. If finding "B" above is made, a further finding is made that there are specifically identified overriding social or economic considerations that warrant approval of the development without modification as described in "A" above.

In addition, if noise levels at any NSLU will exceed CNEL equal to 75 dB(A), the development should not be approved.

Because interior noise levels for multi-family residences are also regulated by Title 24 of the State Building Code, the County evaluates interior levels for multi-family units as part of the building permit process.

Title 24 of the State Building Code requires that:

> Residential structures to be located within an annual CNEL contour of 60 require an acoustical analysis showing that the structure has been designed to limit intruding noise to the prescribed allowable levels.

and that:

> Interior CNEL with the windows closed, attributable to exterior sources shall not exceed an annual CNEL of 45 dB(A) in any habitable room.

Construction Noise

The County has a well-defined Noise Ordinance that covers construction noise. Section 36.409 states:

> Except for emergency work, it shall be unlawful for any person to operate construction equipment or cause construction equipment to be operated, that exceeds an average sound level of 75 dB(A) L_{eq} for an eight-hour period, between 7:00 A.M. and 7:00 P.M., when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received.

Emergency work is defined as follows in the County's Noise Ordinance:

> Emergency Work shall mean work made necessary to restore property to a safe condition following a public calamity or work required to protect persons or property from imminent exposure to danger or damage or work by public or private utilities when restoring utility service (Section 36.402).

Existing Noise Measurements

Ambient noise conditions were measured in and around the Project Site. In order to provide a qualitative assessment of the variability of noise throughout the study area, a series of three short-term daytime noise measurements, 20 minutes in duration, were made by RECON on July 14, 2005, throughout the study area. An additional two measurements were made by RECON on November 13, 2006. Long-term (24-hour) measurements were taken by Pacific Noise Control for the Campus Park Project located directly west of the Proposed Project. The measurement locations are shown on Figure 3.4-1 and were chosen to obtain existing noise levels in order to characterize the existing ambient noise condition.

The first set of short-term measurements was taken by RECON between 10:40 A.M. and 12:10 P.M. on Thursday, July 14, 2005. The weather was warm and mostly cloudy with three to five mph winds from the southwest. Measurement 1 was taken on the western boundary of the Proposed Project with a relatively unobstructed view of I-15. During measurement 1, a few vehicles passed by the dirt road adjacent to the measurement; however, the primary noise source was traffic on I-15. Measurement 2 was taken near the center of the Proposed Project. Measurement 2 had only a partial line of sight to I-15. Measurement 3 was located adjacent to SR-76.

The second set of measurements was taken by RECON on November 13, 2006, between the hours of 3:00 P.M. and 4:30 P.M. The weather was clear with gentle, immeasurable winds. Measurement A was taken towards the north end of the Proposed Project and Measurement B was taken northeast of Measurement 2. There was a clear view of I-15 from both measurement locations.

Table 3.4-1 presents the results of the short-term noise measurements. As seen from Table 3.4-1, the measured short-term noise levels ranged from approximately 46 to 69 dB(A) L_{eq} with the loudest levels occurring adjacent to SR-76.

Long-term (24-hour) measurements were taken by Pacific Noise Control for the Campus Park project located directly west of the Proposed Project. The measurement was taken from August 23, 2005, at 2:00 P.M. to August 25, 2005, at 12:00 P.M. The long-term measurement location (Measurement PNC) is shown in Figure 3.4-1. This measurement was taken approximately 180 feet east of the center line of I-15. The measured hourly noise levels are summarized in Table 3.4-2. The average daytime noise level was 78.4 dB(A) L_{eq}, the average evening noise level was 76.9 dB(A) L_{eq}, and the average nighttime noise level was 74.3 dB(A) L_{eq}. The noise level during the 24-hour period was 82 CNEL. This long-term measurement results in a daytime/evening/nighttime traffic distribution of 68 percent of the traffic during the daytime hours, 12 percent during the evening hours, and 20 percent during the nighttime hours for I-15.

3.4.2 Guidelines for the Determination of Significance

For the purposes of this EIR, the basis for the determination of significance is the Guidelines for Determination of Significance, Noise, adopted January 27, 2009. A project will have a significant adverse environmental effect related to noise if a project-related component results in any of the following:

1. Project implementation would result in the exposure of any on- or off-site, existing or reasonably foreseeable future Noise Sensitive Land Use (NSLU) to exterior or interior noise (including noise generated from the project, together with noise from roads [existing and planned Circulation Element roadways], railroads, airports, heliports and all other noise sources) in excess of any of the following:

    a. Exterior Locations:

        - 60 CNEL; or
        - An increase of 10 decibels over pre-existing noise.

    b. Interior Locations:

        - 45 CNEL except for the following cases:

          Rooms which are usually occupied only a part of the day (schools, libraries, or similar facilities), the interior one-hour average sound level due to noise outside should not exceed 50 dB(A) L_{eq}.

Corridors, hallways, stairwells, closets, bathrooms, or any room with a volume less than 490 cubic feet.

2. Project implementation would generate airborne noise which, together with noise from all sources, would be in excess of either of the following:

   a. Non-Construction Noise: The limit specifies in San Diego County Code Section 36.404, Sound Level Limits, at or beyond the property line. Section 36.404 provides the following limits:

Zone	Period	Applicable Limit One-hour Average Sound Level (dB(A) L_{eq}
R-S, R-D, R-R, R-MH, A-70, A-72, S-80, S-81, S-87, S-90, S-92, R-V, and R-U with a density of less than 11 dwelling units per acre.	7 A.M. to 10 P.M. 10 P.M. to 7 A.M.	50 45
R-RO, R-C, R-M, S-86, V5, and R-V and R-U with a density of 11 or more dwelling units per acre.	7 A.M. to 10 P.M. 10 P.M. to 7 A.M.	55 50
S94, V4, and all commercial zones	7:00 A.M. to 10:00 P.M. 10:00 P.M. to 7:00 A.M.	60 55
V1	7:00 A.M. to 7:00 P.M. 7:00 P.M. to 7:00 A.M.	60 55
V2	7:00 A.M. to 7:00 P.M. 7:00 P.M. to 10:00 P.M. 10:00 P.M. to 7:00 A.M.	60 55 50
V3	7:00 A.M. to 10:00 P.M. 10:00 P.M. to 7:00 A.M.	70 65
M-50, M-52, and M-54	Anytime	70
S82, M56, and M58	Anytime	75

   b. Construction Noise: Noise generated by construction activities related to the project would exceed the standards listed in San Diego County Code Section 36.409, Sound Level Limitations on Construction Equipment. Except for emergency work, it shall be unlawful for any person to operate construction equipment or cause construction equipment to be operated, that exceeds an average sound level of 75 dB(A) L_{eq} for an eight-hour period, between 7:00 A.M. and 7:00 P.M., when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received.

3.4.3 Analysis of Project Effects and Determination as to Significance

Traffic-generated Noise (Guideline 1)

A significant impact would occur if noise levels at exterior usable areas exceed 60 CNEL or if interior noise levels exceed 45 CNEL.

Traffic volumes used for the analysis of future traffic noise were obtained from the traffic report prepared for the Proposed Project. Year 2030 plus project traffic volumes were used. Future distances to 75 and 60 CNEL contour lines were calculated for each roadway assuming flat-site conditions. Flat-site contours are shown in Figure 3.4-2 and the flat-site contour distances from each roadway are summarized in Table 3.4-3. These contours do not take into account any noise attenuation that would be provided by vegetation, buildings, or topography. This would be considered a worst-case analysis and actual future noise levels at the Proposed Project would be less than those shown in Figure 3.4-2. The County Noise Element restricts residential development in areas where noise levels exceed 75 CNEL. As shown in Figure 3.4-2, the Proposed Project would not expose residences to noise levels greater than 75 CNEL.

Noise levels were modeled for a series of receivers located throughout the Proposed Project area to determine the future noise contours over the Proposed Project due to traffic on the surrounding roadways. Unlike the flat-site noise contours, these noise contours include the effects of future grading on the property and existing topography between I-15 and the Proposed Project. These contours do not take into account any noise mitigation measures or shielding provided by the proposed buildings or vegetation.

Future traffic noise levels for I-15 were based on the noise measurements shown in Table 3.4-1. The source of noise at Measurement Location 1 was traffic on I-15. This measurement was used to predict future noise levels due to traffic on I-15 at the receivers located at the multi-family site within PA 4, the school site in PA 2, and the multi-family site within PA 1 since these uses have a similar topographic relationship to I-15. The measured noise level at Measurement Location 1 was 58.6 dB(A) L_{eq}. This results in a future daytime noise level 61.3 dB(A) L_{eq} .which is equal to 65.0 CNEL.

The source of noise at Measurement Location A was also traffic on I-15. This measurement was used to predict future noise levels due to traffic on I-15 at the receivers located at the single-family portion within PA 5 of the Project Site since these uses are in the vicinity of Location A and have a similar elevated topographic relationship to I-15. The measured noise level at Measurement Location A was 53.2 dB(A) L_{eq}. This results in a future daytime noise level 55.9 dB(A) L_{eq} which is equal to 59.6 CNEL.

STAMINA was used to calculate the noise levels due to traffic on all roadways except I-15. The noise levels due to traffic on I-15 discussed above were added to the noise levels calculated by STAMINA. The resulting noise contours at five feet above the ground are shown in Figure 3.4-3. As shown, ground-level receivers closest to the area roadways could experience future traffic noise levels greater than 60 CNEL. The multi-family area in PA 4 could experience noise levels greater than 65 CNEL and the multi-family area in PA 1 could experience noise levels greater than 70 CNEL.

Noise levels were also modeled at 137 specific receiver locations in the backyards of the units and on the school site adjacent to the roadways. The locations of these 137 receivers are shown in Figure 3.4-4. For the multi-family area within PA 1 (Receivers 1 through 22), two-story buildings were modeled as barriers. For the multi-family portion area within PA 4 (Receivers 29 through 41) the buildings closest to Horse Ranch Creek Road were modeled as barriers. The resulting projected noise levels at these receivers are shown in Table 3.4-4. Table 3.4-5 lists the affected lots that correspond to the

receivers and noise levels shown in Table 3.4-4, as well as the lot elevations and proposed barrier elevations.

As seen from Table 3.4-4, exterior noise levels adjacent to the major roadways are projected to exceed the County's standard of 60 CNEL and impacts would be **significant (N-1)**.

As seen in Figure 3.4-4 and Table 3.4-4, even after the construction of the proposed barriers, second-floor exterior noise levels at the multi-family units are projected to exceed 60 CNEL. Therefore, interior noise levels cannot be assumed to be within the 45 CNEL standard. Moreover, exterior noise levels on second-floor balconies are projected to exceed 60 CNEL (Table 3.5-4). This represents a **significant** impact. **(N-2)**.

For the single-family area within PA5 of the Proposed Project, noise levels at receivers adjacent to roadways are not projected to exceed 60 CNEL after the construction of the proposed barriers. Therefore, interior noise levels are projected to be within the 45 CNEL standard. Impacts are **less than significant**.

For the school site, noise levels were refined by placing more receivers within the site. These receivers are shown in Figure 3.4-4 and the exterior noise levels for these receivers are summarized in Table 3.4-4. Assuming 20 decibels of exterior-to-interior reduction would result in interior noise levels of 50 dB(A) L_{eq} or less when exterior noise levels are 70 dB(A) L_{eq} or less. As discussed above, the average daytime noise level is approximately two decibels less than the CNEL for this analysis. As seen in Table 3.4-4, exterior noise levels are not projected to exceed 60 CNEL with constructed barriers. Therefore, interior noise levels due to exterior sources are not projected to exceed 50 dB(A) L_{eq}. Impacts are **less than significant**.

Stationary Noise (Guideline 2)

A significant impact would occur if construction noise exceeds an eight-hour average noise level of 75 dB(A) L_{eq} at a residential receptor or if stationary noise exceeds the applicable limits in the noise ordinance. These limits are summarized in Section 3.4.2 above.

Construction-generated Noise

All construction would be limited to the hours of 7:00 A.M. to 7:00 P.M. Monday through Saturday as stated in the County of San Diego's Noise Abatement and Control Ordinance. However, noise associated with the demolition, earthwork, construction, and surface preparation for the Proposed Project will result in short-term impacts to adjacent residential properties. A variety of noise-generating equipment would be used during the construction phase of the Proposed Project such as scrapers, dump trucks, backhoes, front-end loaders, jackhammers, and concrete mixers, along with others. As discussed above, construction noise that exceeds an eight-hour average noise level of 75 dB(A) L_{eq} at the property line would be significant.

Table 3.4-6 indicates the types of construction equipment typically involved in construction projects. This type of equipment can individually generate noise levels that range between 78 and 91 dB(A) L_{eq} at 50 feet from the source, as listed in Table 3.4-6. Ground-clearing activities generally generate the greatest average construction noise

levels. These activities are estimated to generate average noise levels of 83 to 84 dB(A) L_{eq} 50 feet from the site of construction (Bolt, Beranek, and Newman, Inc. 1971). This value is based on empirical data on the number and types of equipment at a construction site and their average cycle of operation.

Construction noise generally can be treated as a point source and would attenuate at approximately six decibels for every doubling of distance. A grading noise level of 84 dB(A) L_{eq} would attenuate to 75 dB(A) L_{eq} at approximately 140 feet from the noise source.

As can be seen in Figure 3.4-1, the nearest residential property line is located adjacent to the southeast boundary of the Proposed Project adjacent to Rosemary's Mountain Rock Quarry. Grading activities will occur over the entire site and would not be situated at any one location for a long period of time. For a worst-case scenario, it was assumed that grading in an eight hour period would be centered in a two-acre area. Then the center of this small grading area would be located no closer than 150 feet from the property line. A noise level of 84 dB(A) L_{eq} at 50 feet would attenuate to 74 dB(A) L_{eq} at 150 feet. Therefore, construction noise levels due to grading do not have the potential to exceed County standards of 75 dB(A) L_{eq} at the property line and impacts related to on-site construction noise are **less than significant**.

Building construction would occur in phases. Residences constructed during earlier phases would be exposed to on-site building construction noise during later phases of the Proposed Project. However, construction work that could occur adjacent to newly occupied residences would primarily involve the use of hand tools and small machinery. Although the noise could be a nuisance to occupants of adjacent residences, it would not be expected to violate any standards.

Existing residences would be exposed to noise due to off-site construction that could be required as a result of the Proposed Project. A new signal would be installed at the intersection of Reche Road and Old Highway 395. This improvement would be a responsibility of the Proposed Project if the Proposed Project is constructed before the adjacent projects. The closest sensitive receptor is more than 600 feet away and installation would not generate significant noise levels. Due to the absence of sensitive receptors adjacent to the preferred connection to the Second Aqueduct and associated pipelines, construction of this required off-site infrastructure would not significantly affect residents. Therefore, noise impacts due to off-site construction are **less than significant**.

Rosemary's Mountain Rock Quarry

The future site of Rosemary's Mountain Rock Quarry is located directly east of the Proposed Project. Noise levels due to operations at Rosemary's Mountain Rock Quarry were analyzed to ensure that levels would not exceed the applicable limits in the County Noise Ordinance. The County Noise Ordinance states that the sound level limit at the property line for extractive industries, such as Rosemary's Mountain Rock Quarry, is an hourly average noise level of 75 dB(A) $L_{eq(1)}$. Noise levels are also discussed in terms of the CNEL to ensure that levels do not exceed 60 CNEL and, therefore, comply with County Noise Element 4b. The quarry documentation includes typical weekday hours of operation between 6:00 A.M. and 10:00 P.M. with the noisier activities stopping by 4:00 P.M.

The EIR for Rosemary's Mountain Rock Quarry (Mooney & Associates 1997) includes a mitigation measure and monitoring program to ensure that future residential development does not experience an hourly noise level in excess of 60 dB(A) $L_{eq(1)}$ due to mining and processing operations. The EIR indicates the location of the worst case average hourly 60 dB(A) $L_{eq(1)}$ contour. Pursuant to the County Noise Element, CNEL measurement/calculations are required to ensure no new impacts would occur to noise sensitive land-uses on the Project Site. CNEL noise measurement is a 24 hour average. Taking into account the typical hours of operation, the CNEL was calculated by adding 10 decibels to the noise that occurs between 10:00 P.M. and 7:00 A.M. and adding 5 decibels to the noise that occurs between 7:00 P.M. and 10:00 P.M.

The 60 CNEL contour line would be located approximately 165 feet from the average hourly 60 dB(A) $L_{eq(1)}$ contour line. In addition, the average hourly 50 dB(A) $L_{eq(1)}$ contour would be located approximately 870 feet from the average hourly 60 dB(A) $L_{eq(1)}$ contour. Figure 3.4-5 shows the worst case average hourly 60 dB(A) $L_{eq(1)}$ noise contour from Rosemary's Mountain Rock Quarry EIR, an estimate of the location of the average hourly 50 dB(A) $L_{eq(1)}$ noise contour, and an estimate of the location of the 60 CNEL noise contour. The hourly 50 dB(A) $L_{eq(1)}$ contour is approximately 870 feet from the hourly 60 dB(A) $L_{eq(1)}$contour. As shown, noise levels are not projected to exceed the hourly noise level of 60 dB(A) $L_{eq(1)}$ and, therefore, Rosemary's Mountain Rock Quarry complies with the County Noise Ordinance for extractive industries. As also shown, noise levels are not projected to exceed 60 CNEL at the proposed residences and, therefore comply with the County Noise Element 4b and impacts would be **less than significant**.

Noise from the quarry may be considered a nuisance to future residences. Lots within the average hourly 50 dB(A) L_{eq} contour would be affected by Quarry operations. Lots near modeled receivers 42 through 44 and 48 through 73 would notice Quarry operations more because of their location and the lower traffic noise conditions. Lots near Horse Ranch Creek Road would notice noise due to Quarry operations less because of the higher traffic noise levels.

As a project design consideration, lots within the 50 dB(A) $L_{eq(1)}$ contour would receive the following notice prior to purchase:

> This property is located adjacent to Rosemary's Mountain Rock Quarry. Noise levels due to operations at the Quarry are projected to exceed 50 decibels one-hour Leq at this property, but will not exceed 60 decibels one-hour Leq.

Blasting would occur once a week at the Quarry. The duration of an individual blast is on the order seconds or less than a second. At a distance removed from the quarry, a blast would likely be heard as an indistinct rumbling sound.

With the Quarry's compliance with its mitigation and monitoring program, and notification described above, noise levels at Proposed Project residences due to quarry operations will be **less than significant**.

Wastewater Treatment Plant

The Proposed Project includes the construction and operation of a Wastewater Treatment Plant (WWTP) on an approximate one-acre site. Figure 1-7 shows the location of the proposed on-site facility. Noise associated with operation of the on-site WWTP was analyzed to ensure that noise levels would not exceed the applicable County Noise Ordinance standards of (50 dB(A) L_{eq} from 7:00 A.M. to 10:00 P.M. and 45 dB(A) L_{eq} from 10:00 P.M. to 7:00 A.M).

A noise analysis to address potential noise impacts to adjacent residential units from the WWTP was performed. A reference noise level of 70 dB(A) L_{eq} was used for the WWTP. This is based on a noise analysis done for a 25 MGD facility located in the city of Oceanside (RECON 2006). This facility is larger than the proposed WWTP. The noise producing equipment at the 25 MGD facility, which included a blower room, odor scrubbers, screens and augers, mixers, exhaust fans, air compressors, and air conditioners, is similar to the equipment that would be used at the proposed facility. This noise level does not account for noise reduction provided by locating any equipment inside enclosed buildings. This noise level is also based on data from a facility much larger than the proposed facility. Therefore, 70 dB(A) L_{eq} at 50 feet is a conservative reference noise level.

This analysis assumed that the main noise source associated with the operation of the WWTP would be located at the center of the building at the west end of the site (see Figure 1-7).The closest on-site residential property line is located approximately 95 feet north of the center of the WWTP building. Assuming six decibels reduction for every doubling of distance, 70 dB(A) L_{eq} at 50 feet would attenuate to 64 dB(A) L_{eq} at 95 feet. Therefore, should the on-site WWTP option be constructed, the noise level at the residential property line due to the WWTP would be 64 dB(A) L_{eq}. Because County noise standards limit noise levels at the property line to 50 dB(A) L_{eq} during the day and 45 dB(A) L_{eq} at night, impacts are **significant (N-3)**.

3.4.4 Cumulative Impact Analysis

Traffic-generated Noise

The Proposed Project will contribute traffic to off-site roads as well as on-site roads. An increase of three decibels is considered a perceptible increase in noise. A significant impact would occur if project implementation will expose on- or off-site, existing and planned NSLU to road noise three decibels over existing noise levels and are not to exceed 65 CNEL. The specified existing noise levels are for NSLU with site conditions greater than 58 CNEL. Additionally, a potentially cumulatively considerable impact could occur if the project is shown to produce more than a one decibel increase in noise levels.

Table 3.4-7 summarizes the existing ADT, the existing plus project ADT the existing plus cumulative ADT, the existing plus cumulative plus project ADT, the year 2030 without the project ADT, the year 2030 plus the project ADT, and the corresponding increases in noise. The year 2030 plus project ADT includes the future projected traffic volumes as well as the buildout traffic volumes associated with this project and other pending projects in the vicinity. Traffic volumes were obtained from the traffic report prepared for the Proposed Project (LOS Engineering 2009).

As shown in Table 3.4-7, the greatest direct increase in noise resulting from adding project-related ADT to the existing ADT is 1.3 decibels and is located on SR-76 between the I-15 northbound ramps and Horse Ranch Creek Road and on Old Highway 395 between Reche Road and Stewart Canyon Road. The greatest increase in noise resulting from adding project ADT to existing plus cumulative ADT is 1.1 decibels located on Horse Creek Ranch Road between Street A and Street Q and between Street Q and Street R. The greatest increase in noise resulting from adding project ADT to year 2030 ADT is also 1.1 decibels located on Horse Creek Ranch Road between Street A and Street Q and between Street Q and Street R. The 1.1 decibel increase is not significant at this location because there are no current residential structures along this roadway segment. An increase in noise levels at all other locations is one decibel or less. Therefore, impacts are **less than significant**.

Construction-generated Noise

Construction noise due to the Proposed Project alone is not projected to exceed the noise ordinance standards. A number of projects are planned in the vicinity of the Proposed Project. The Campus Park, Campus Park West, and Palomar College projects are located adjacent to the Proposed Project. As discussed above, the nearest residential property line is adjacent to the southeast boundary of the Project Site. A grading noise level of 84 dB(A) L_{eq} at 50 feet would attenuate to 74 dB(A) L_{eq} at 150 feet. The next closest project to this residential property line is the Campus Park project more than 1,000 feet to the west. A grading noise level of 84 dB(A) L_{eq} at 50 feet would attenuate to 58 dB(A) L_{eq} at 1,000 feet. When combining cumulative noise sources, there is no change in the total noise level if a noise level is 10 decibels less than the other. Therefore, noise due to construction of the Proposed Project would not be cumulatively considerable when combined with the construction related noise of cumulative projects and impacts would be **less than significant**.

3.4.5 Mitigation Measures Proposed to Minimize the Significant Effects

M-N-1 The Proposed Project shall construct noise attenuation barriers ranging from three to ten feet along the edge of the residential pads, as shown in Figures 3.4-4 and 3.4-7. Barriers shall be free of cracks and holes. The transmission loss through a barrier should be at least 10 decibels greater than the estimated barrier attenuation (Federal Highway Administration 1979:34). If a barrier attenuates noise levels by 10 decibels at a receiver location, the barrier transmission loss must be at least 20 decibels to prevent audible noise from traveling through the barrier and adding to the acoustical environment. Examples of acceptable barrier materials include, but are not limited to, masonry block, wood frame with stucco, 0.5-inch-thick Plexiglas, or 0.25-inch-thick plate glass. If transparent barrier materials are used, no gaps shall occur between the panels.

Figure 3.4-6 shows the barriers that would be required if the Campus Park project was constructed before the Proposed Project. As shown in Figure 3.4-6, several noise barriers at the southwest portion of Planning Area 1 as shown on Figure 3.4-4 would not be required with development of the Campus Park project.

M-N-2 A noise protection easement shall be placed on those lots where exterior noise levels exceed 60 CNEL to assure that at such time as architectural plans are available, and prior to the issuance of building permits, an interior acoustical analysis shall be conducted in accordance with the State Building Code and County standards. If interior allowable noise levels are met by requiring that windows be unopenable or closed, the design for the structure must also specify a ventilation or air-conditioning system to provide a habitable interior environment, I in the State Building Code.. For exterior balconies, the acoustical analysis will determine the height and make up of acoustical barriers, also in accordance with the State Building Code and County standards.

M-N-3 To reduce noise levels from the WWTP, the Proposed Project shall construct a nine-foot barrier at the property line south of Planning Area 1 and north of SR-76, and a seven-foot barrier proposed south of the WWTP site."

3.4.6 Conclusion

Traffic generated noise at exterior receivers will be significant (N-1). M-N-1 requires the construction of noise barriers. These barriers would provide effective protection from audible intrusion. Implementation of this measure would reduce noise impacts to a level that is less than significant.

Interior noise levels of second floor receivers of the multi-family lots adjacent to the roadways could exceed allowable noise levels for both the interior and exterior (N-2). M-N-2 requires an interior analysis of those receivers to be conducted when specific building plans are available to determine whether interior noise levels will exceed 45 CNEL. This mitigation measure would be effective in identifying those units where additional noise reduction measures may be indicated allowing a reduction in interior noise to a level that is less than significant. Moreover, exterior noise levels on second-floor balconies may exceed 60 CNEL, M-N-2 and require additional noise analysis prior to the issuance of building permits to determine the specific height and make-up of noise attenuation requirements within the balcony areas. This mitigation measure would effectively reduce impacts because it will allow the identification of the specifications for noise barriers at the time of construction.\

As discussed above, the acoustic center of grading activities would be no closer than 150 feet from the property line of the closest residence. Therefore, construction noise levels due to grading do not have the potential to exceed County standards. No mitigation is required.

Additionally, because the closest sensitive receptor is more than 600 feet away from proposed off-site improvements including road construction and utility expansions, noise impacts due to off-site construction are less than significant.

Noise levels due to operations at Rosemary's Mountain Rock Quarry would not exceed an hourly noise level of 60 dB(A) $L_{eq(1)}$ at the proposed residences. With the Quarry's compliance with its mitigation and monitoring program and the project notification to prospective buyers, noise levels at Proposed Project residences due to quarry operations will be less than significant.

Noise at exterior receivers due to the WWTP will be significant (N-3). M-N-3 is the same as M-N-1 requiring the construction of a noise barrier. Specifically a 10-foot barrier proposed south of the residences in Planning Area 1 would reduce noise impacts to a level that is less than significant. A noise barrier would effectively reduce the sound which enters a community by absorbing it, transmitting it, reflecting it back, or forcing it to take a longer path. The effectiveness of a barrier is dependent upon the quality of construction and the barrier material mass and acoustical properties. Barriers should be free of cracks and holes. As detailed in the Noise Analysis, the transmission loss through a barrier should be at least 10 decibels greater than the estimated barrier attenuation (Federal Highway Administration 1979:34). If a barrier attenuates noise levels by 10 decibels at a receiver location, the barrier transmission loss must be at least 20 decibels to prevent audible noise from traveling through the barrier and adding to the acoustical environment. Examples of acceptable barrier materials include, but are not limited to, masonry block, wood frame with stucco, 0.5-inch-thick Plexiglas, or 0.25-inch-thick plate glass. If transparent barrier materials are used, no gaps should occur between the panels. Overall, the proper materials and placement of noise walls are an effective barrier to noise.

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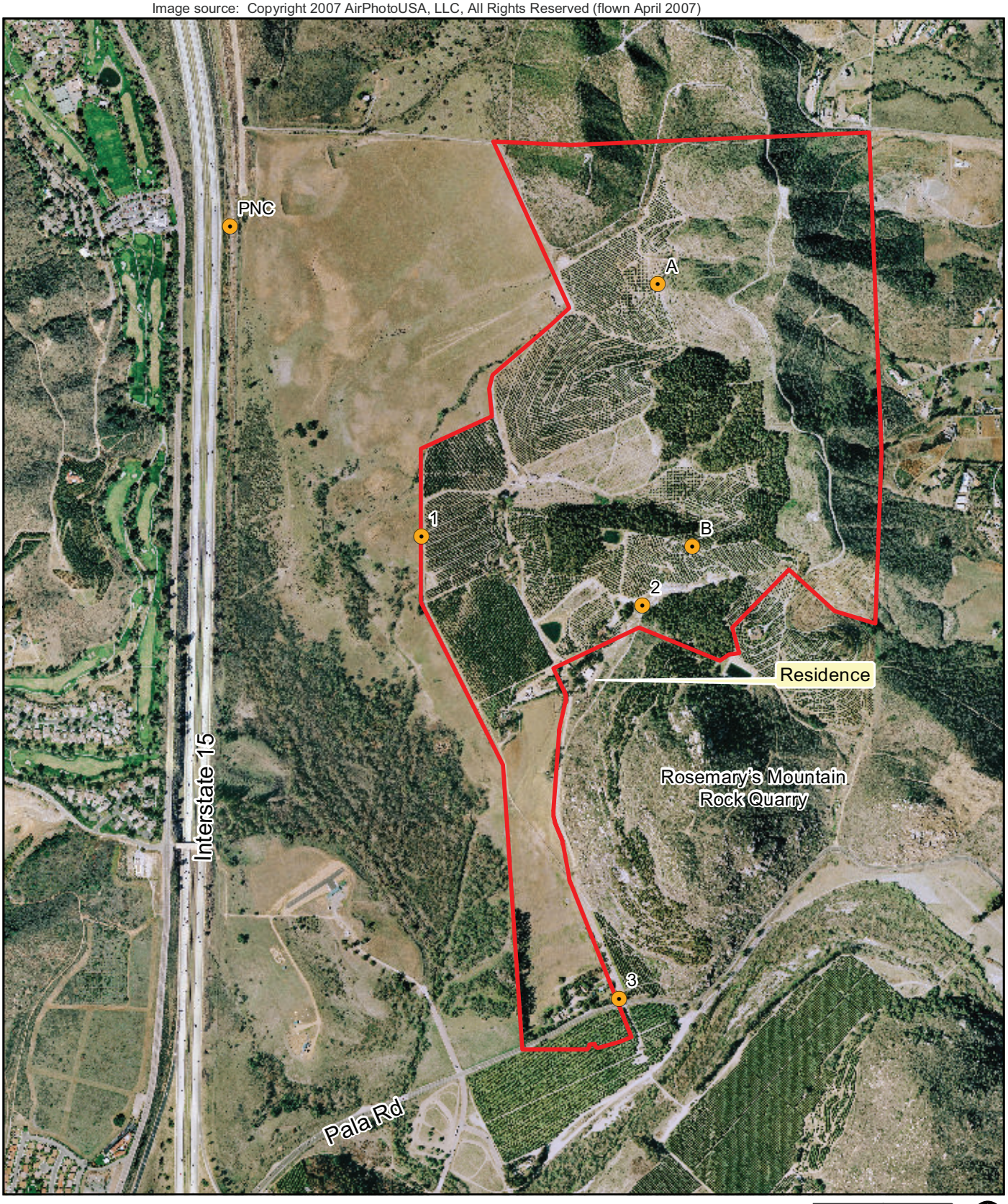
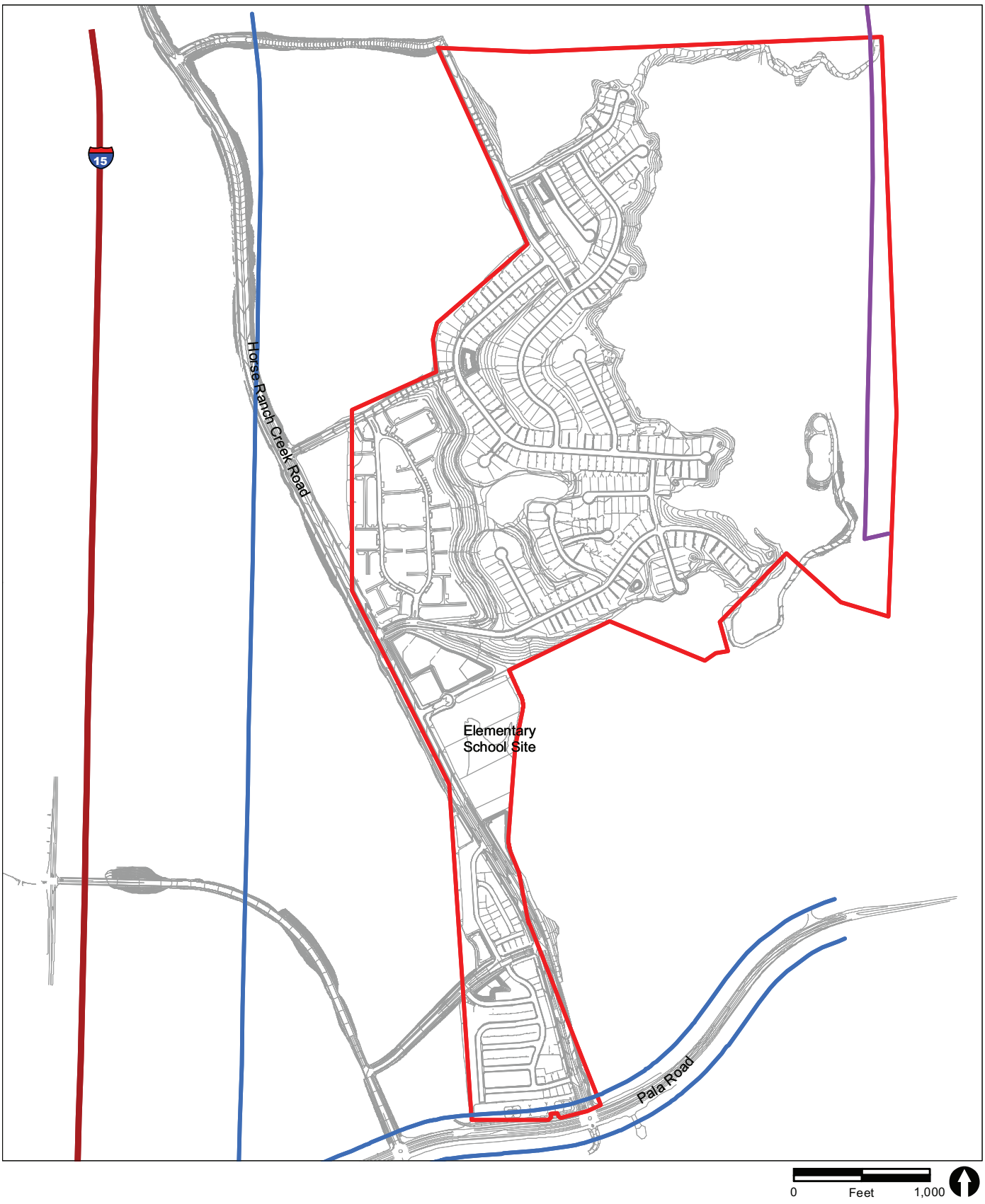


FIGURE 3.4-1
Aerial Photograph of Project and Noise Measurements Locations

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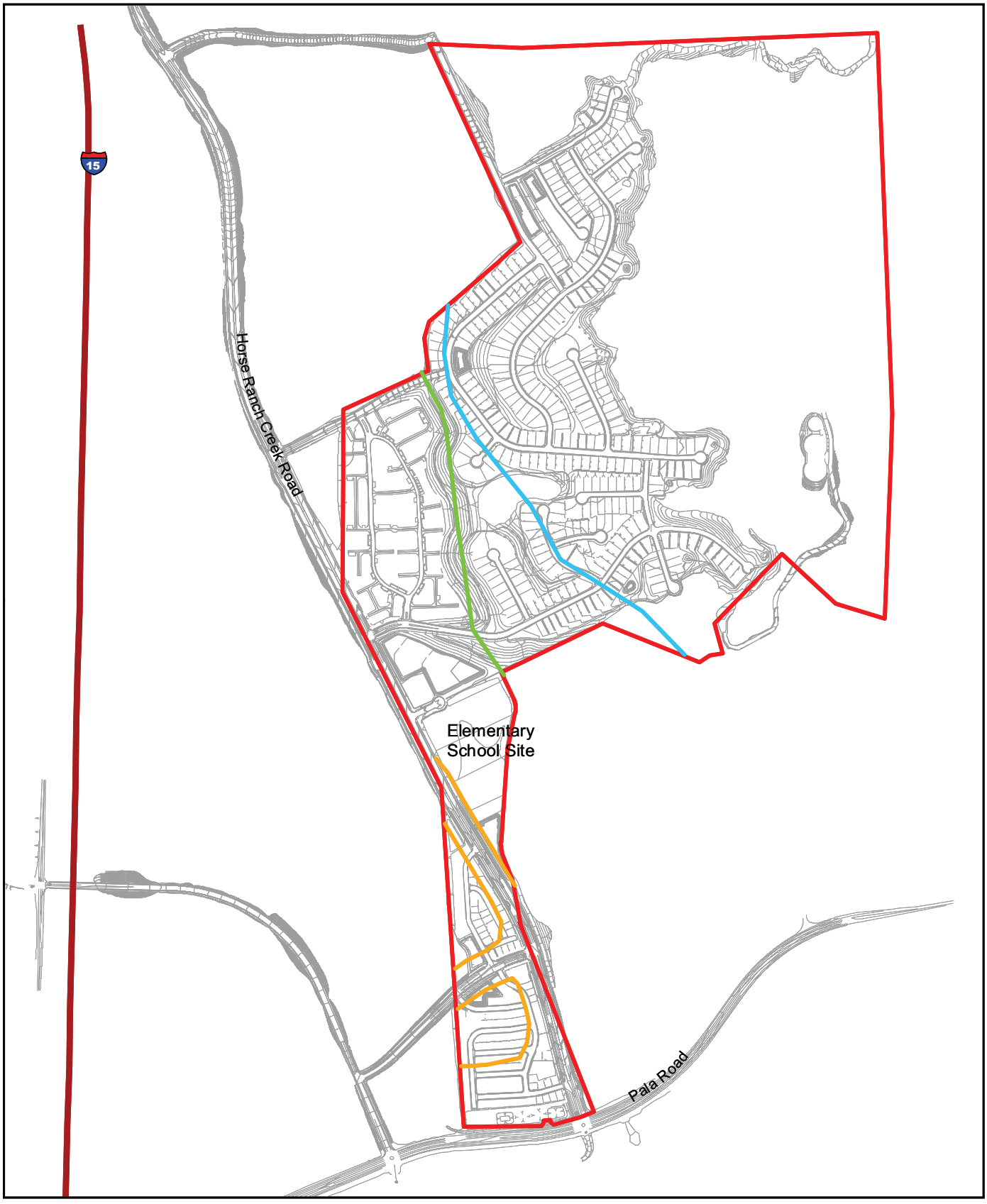


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FIGURE 3.4-2

Flat-Site Roadway Noise Contours



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FIGURE 3.4-3

Future Projected Noise Contours without Mitigation

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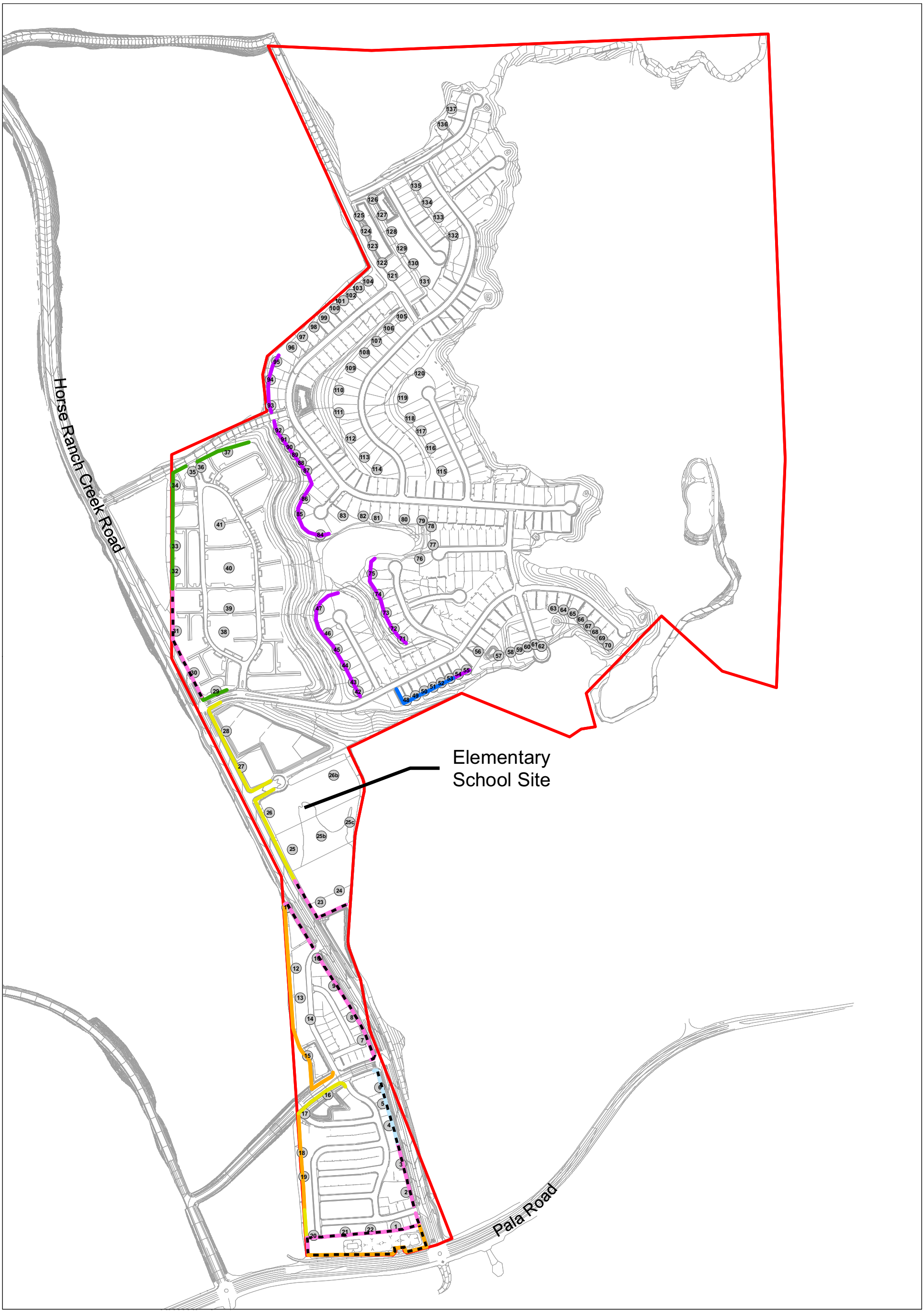


FIGURE 3.4-4

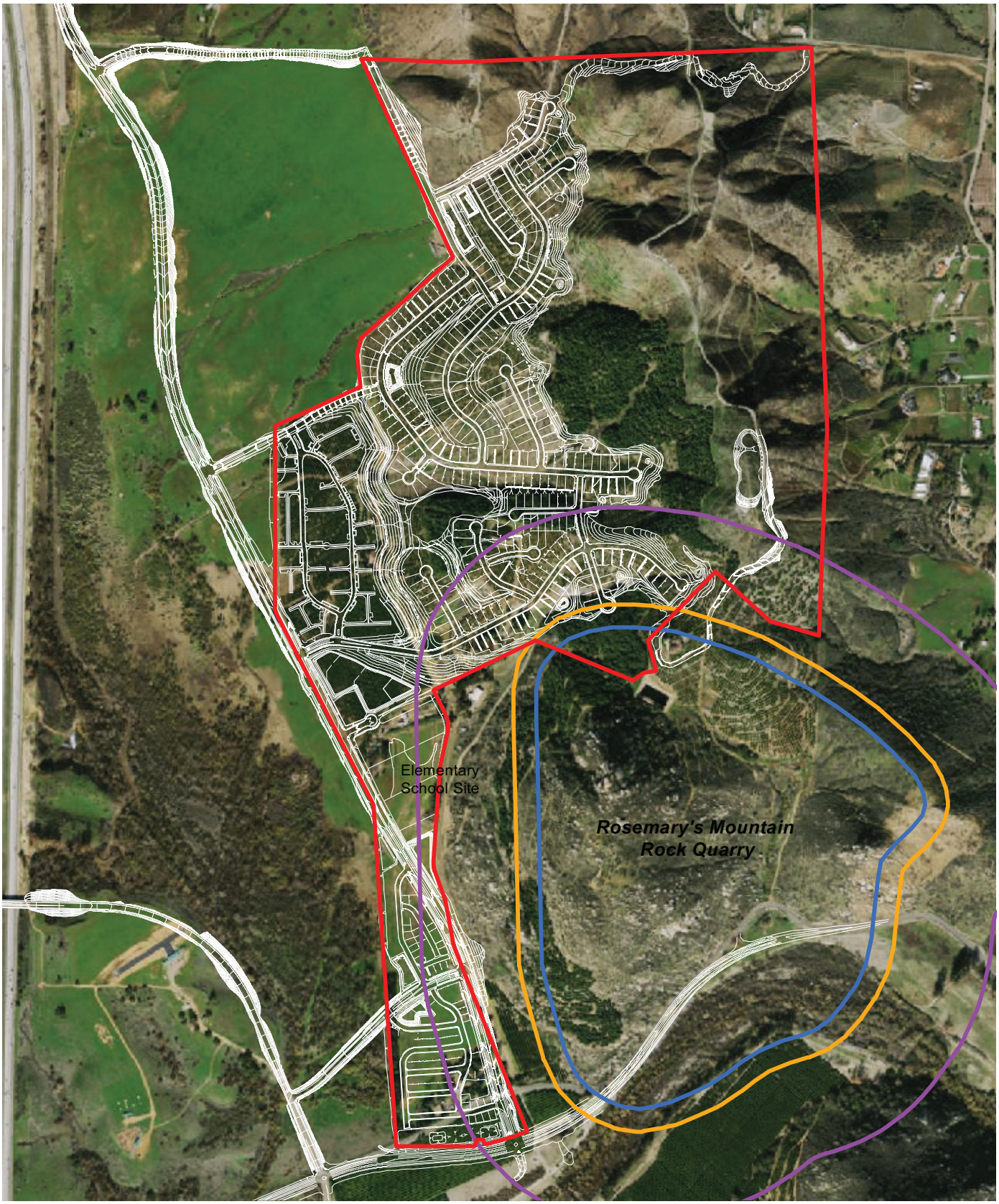
Modeled Receivers and
Noise Barrier Locations

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FIGURE 3.4-5

Rosemary's Mountain Rock Quarry Noise Contours

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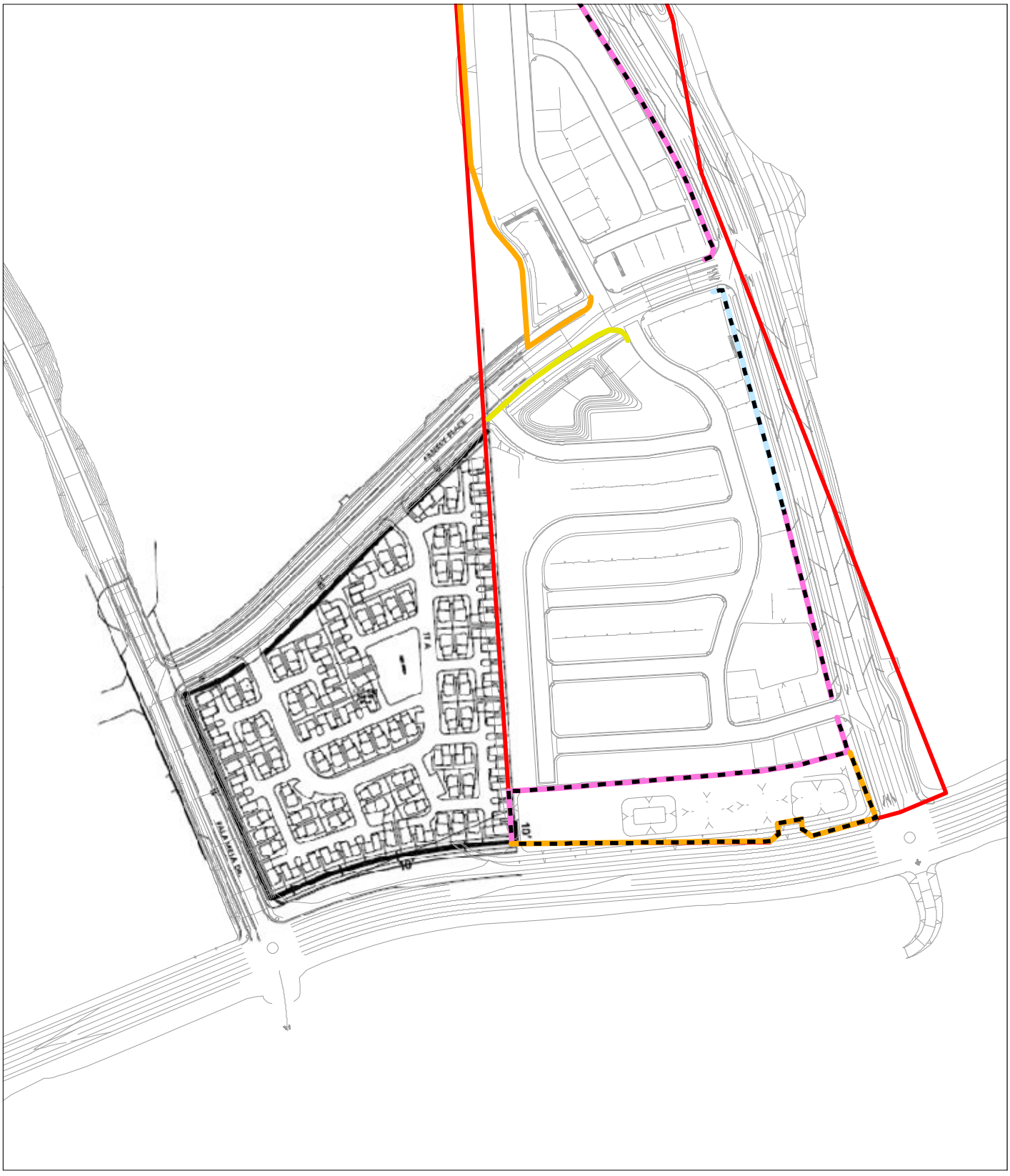


FIGURE 3.4-6

Proposed Noise Barriers with
Construction of Campus Park Project

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TABLE 3.4-1
SHORT-TERM MEASUREMENT RESULTS

Location	Date	Duration (Minutes)	Average Noise Level [dB(A) L_{eq}]	Modeled Noise Level [dB(A) L_{eq}]	Traffic Noise Sources	Distance from Source
1	07/14/2005	20	58.6		I-15	N/A
2	07/14/2005	20	45.7	Not Modeled	I-15 and Pala Road	N/A
3	07/14/2005	20	68.6	Not Modeled	Pala Road	50 feet from centerline
A	11/13/2006	15	53.2		I-15	3,900 from centerline
B	11/13/2006	15	52.0		I-15	4,250 from centerline

TABLE 3.4-2
MEASUREMENT PNC HOURLY AVERAGE NOISE LEVELS

Date	Start Hour	Average Hourly Noise Level [dB(A) L_{eq}]
August 23, 2005	2:00 P.M.	79
	3:00 P.M.	79
	4:00 P.M.	80
	5:00 P.M.	80
	6:00 P.M.	79
	7:00 P.M.	78
	8:00 P.M.	77
	9:00 P.M.	76
	10:00 P.M.	76
	11:00 P.M.	74
August 24, 2005	12:00 A.M.	72
	1:00 A.M.	71
	2:00 A.M.	70
	3:00 A.M.	71
	4:00 A.M.	74
	5:00 A.M.	76
	6:00 A.M.	78
	7:00 A.M.	78
	8:00 A.M.	78
	9:00 A.M.	78
	10:00 A.M.	77
	11:00 A.M.	77
	12:00 P.M.	77
	1:00 P.M.	78
	2:00 P.M.	78
	3:00 P.M.	79
	4:00 P.M.	79
	5:00 P.M.	79
	6:00 P.M.	79
	7:00 P.M.	77
	8:00 P.M.	77
	9:00 P.M.	76
	10:00 P.M.	75
	11:00 P.M.	74
August 25, 2005	12:00 A.M.	72
	1:00 A.M.	70
	2:00 A.M.	70
	3:00 A.M.	71
	4:00 A.M.	74
	5:00 A.M.	77
	6:00 A.M.	78
	7:00 A.M.	78
	8:00 A.M.	78
	9:00 A.M.	78
	10:00 A.M.	77
	11:00 A.M.	77

TABLE 3.4-3
FLAT-SITE ROADWAY CONTOUR DISTANCES (feet)

Roadway	Distance to 75 CNEL Contour Line	Distance to 60 CNEL Contour Line
SR-76	150	2,713
Street R	18	554
Pala Mesa Drive	13	404
Horse Ranch Creek Road		
SR-76 to Street R	18	566
Street R to Street Q	30	950
Street Q to Street A	30	941
Street A to Street B	27	866
Street B to Longspur Road	21	666
Longspur Road to Baltimore Oriole Drive	15	475
I-15	1,183	5,684

TABLE 3.4-4
PROJECTED TRAFFIC NOISE LEVELS
(CNEL)

Receiver	Noise Level: No Barrier First Floor	Noise Level: No Barrier Second Floor	Noise Level: Constructed Barrier First Floor	Noise Level: Constructed Barrier Second Floor
1	72	73	60	73
2	70	71	60	69
3	71	71	60	71
4	70	70	60	69
5	70	70	59	68
6	71	71	60	71
7	70	71	60	68
8	71	71	59	70
9	71	71	59	70
10	71	71	60	71
11	71	72	60	71
12	66	66	57	66
13	66	66	58	66
14	66	66	58	66
15	66	67	57	66
16	69	71	60	69
17	69	70	60	68
18	68	68	58	68
19	67	68	58	68
20	72	72	59	72
21	72	72	60	72
22	72	72	60	72
23	68	70	60	67
24	67	67	59	66
25	68	69	60	67
26	68	70	60	67
27	69	71	59	69
28	69	70	60	68
29	67	67	60	67
30	70	71	60	69
31	70	70	60	69
32	67	67	60	67
33	67	67	59	67
34	66	66	58	66
35	65	65	56	65
36	65	65	56	65
37	65	65	56	65
38	56	57	55	56
39	56	56	55	56
40	55	56	55	55
41	55	56	55	55
42	61	62	60	62
43	61	62	60	62
44	62	62	60	62
45	61	62	60	62
46	61	62	60	62
47	61	62	60	61
48	61	61	60	61
49	61	61	59	61
50	61	61	59	61
51	61	61	60	61
52	61	61	59	61
53	61	61	60	61
54	61	61	60	61

TABLE 3.4-4
PROJECTED TRAFFIC NOISE LEVELS
(CNEL)
(CONTINUED)

Receiver	Noise Level: No Barrier First Floor	Noise Level: No Barrier Second Floor	Noise Level: Constructed Barrier First Floor	Noise Level: Constructed Barrier Second Floor
55	61	61	60	61
56	60	61	60	61
57	60	61	60	61
58	60	61	60	61
59	60	61	60	61
60	60	60	60	60
61	60	60	60	60
62	60	60	60	60
63	60	60	60	60
64	60	60	60	60
65	60	60	60	60
66	60	60	60	60
67	60	61	60	61
68	60	61	60	61
69	60	61	60	61
70	60	61	60	61
71	61	61	60	61
72	61	61	60	61
73	61	61	60	61
74	61	61	60	61
75	61	61	60	61
76	60	60	60	60
77	60	60	60	60
78	60	60	60	60
79	60	60	60	60
80	60	60	60	60
81	60	60	60	60
82	60	60	60	60
83	60	60	60	60
84	61	61	60	61
85	61	61	60	61
86	61	61	60	61
87	60	61	59	61
88	60	61	59	61
89	61	61	60	61
90	60	61	59	61
91	61	61	60	61
92	61	61	60	61
93	61	61	60	61
94	61	61	60	61
95	60	61	60	61
96	60	60	60	60
97	60	60	60	60
98	60	60	60	60
99	60	60	60	60
100	60	60	60	60
101	60	60	60	60
102	60	60	60	60
103	60	60	60	60
104	60	60	60	60
105	60	60	60	60
106	60	60	60	60
107	60	60	60	60
108	60	60	60	60
109	60	60	60	60
110	60	60	60	60

TABLE 3.4-4
PROJECTED TRAFFIC NOISE LEVELS
(CNEL)
(CONTINUED)

Receiver	Noise Level: No Barrier First Floor	Noise Level: No Barrier Second Floor	Noise Level: Constructed Barrier First Floor	Noise Level: Constructed Barrier Second Floor
111	60	60	60	60
112	60	60	60	60
113	60	60	60	60
114	60	60	60	60
115	60	60	60	60
116	60	60	60	60
117	60	60	60	60
118	60	60	60	60
119	60	60	60	60
120	60	60	60	60
121	60	60	60	60
122	60	60	60	60
123	60	60	60	60
124	60	60	60	60
125	60	60	60	60
126	60	60	60	60
127	60	60	60	60
128	60	60	60	60
129	60	60	60	60
130	60	60	60	60
131	60	60	60	60
132	60	60	60	60
133	60	60	60	60
134	60	60	60	60
135	60	60	60	60
136	60	60	60	60
137	60	60	60	60

TABLE 3.4-5
LOT AND BARRIER ELEVATIONS

Lot	Corresponding Receiver	Lot Elevation (feet)	Top of Barrier Elevation (feet)	Barrier Height (feet)
LOT A	11	281	West barrier – 288 East barrier – 290	West barrier – 7 East barrier – 9
359	10	282	291	9
360	12	281	288	7
361	12	281	288	7
362	12	280	287	7
363	12	280	287	7
364	13	279	286	7
365	13	279	286	7
366	13	278	285	7
367	13	278	285	7
368	14	277	284	7
369	14	277	284	7
370	14	276	283	7
371	14	276	283	7
372	15	276	283	7
373	15	275	282	7
374	15	275	282	7
375	15	274	281	7
376	15	274	281	7
391	10	281	290	9
392	10	280	289	9
394	9	279	288	9
395	9	279	288	9
396	9	279	288	9
397	9	279	288	9
398	9	279	288	9
399	8	279	288	9
400	8	279	288	9
401	8	279	288	9
402	8	278	287	9
403	7	277	286	9
404	7	277	286	9
415	6	281	290	9
416	6	281	290	9
418	5	283	292	9
419	5	284	293	9
420	5	285	294	9
421	4	286	295	9
422	4	287	296	9
423	4	287	296	9
424	4	287	296	9
425	3	286	295	9
426	3	286	295	9
427	3	285	294	9
428	3	285	294	9
LOT Y	2	282	291	9
434	2	279	288	9
435	2	280	289	9
436	1	280	289	9
437	1	281	290	9
438	1	282	291	9
439	1	283	292	9

TABLE 3.4-5
LOT AND BARRIER ELEVATIONS
(CONTINUED)

Lot	Corresponding Receiver	Lot Elevation (feet)	Top of Barrier Elevation (feet)	Barrier Height (feet)
440	22	283	292	9
441	22	282	291	9
442	22	282	291	9
443	22	282	291	9
444	21	281	290	9
445	21	281	290	9
446	21	280	289	9
447	21	280	289	9
448	20	279	South barrier – 288 West barrier - 287	South barrier – 9 West barrier – 8
449	20	279	287	8
450	20	278	286	8
451	19	279	286	7
452	19	279	286	7
453	19	280	287	7
454	19	280	287	7
455	19	281	288	7
456	19	281	288	7
457	19	281	288	7
458	18	282	289	7
459	18	282	289	7
460	18	282	289	7
461	18	282	289	7
462	17	283	290	7
LOT M	16	280	West barrier – 287 North barrier - 288	West barrier – 7 North barrier - 8
School	23	280	289	9
School	24	285	294	9
School	25	292	300	8
School	26	298	306	8
Park	27	305	313	8
Park	28	310	318	8
Multi-family lot	29	314	South barrier – 319 West barrier – 323	South barrier – 5 West barrier – 9
Multi-family lot	30	311	320	9
Multi-family lot	31	314	323	9
Multi-family lot	32	317	322	5
Multi-family lot	33	319	324	5
Multi-family lot	34	322.5	327.5	5
Multi-family lot	35	324	329	5
Multi-family lot	36	325.5	330.5	5
Multi-family lot	37	325.5	330.5	5
Multi-family lot	38	313	No barrier	No barrier
Multi-family lot	39	315.5	No barrier	No barrier
Multi-family lot	40	318	No barrier	No barrier
Multi-family lot	41	320	No barrier	No barrier
1	42	416.5	319.5	3
2	43	418.5	421.5	3
3	43	421.5	424.5	3
4	44	424.5	427.5	3
5	44	426.5	429.5	3
6	45	427	430	3
7	45	427	430	3
8	46	427	430	3
9	46	426.5	429.5	3
10	47	426.5	429.5	3

TABLE 3.4-5
LOT AND BARRIER ELEVATIONS
(CONTINUED)

Lot	Corresponding Receiver	Lot Elevation (feet)	Top of Barrier Elevation (feet)	Barrier Height (feet)
11	47	426.5	429.5	3
78	48	425.5	429.5	4
79	49	430.5	434.5	4
80	50	437.5	441.5	4
81	51	446	450	4
82	52	451.5	455.5	4
83	53	456.5	460.5	4
84	54	460.5	464.5	4
85	55	462.5	466.5	4
92	56	471	No barrier	No barrier
91	57	487	No barrier	No barrier
90	58	498.5	No barrier	No barrier
89	59	508	No barrier	No barrier
88	60	513.5	No barrier	No barrier
87	61	516.5	No barrier	No barrier
86	62	517.5	No barrier	No barrier
102	63	534.5	No barrier	No barrier
103	64	542	No barrier	No barrier
104	65	558	No barrier	No barrier
105	66	573.5	No barrier	No barrier
106	67	584.5	No barrier	No barrier
107	68	592.5	No barrier	No barrier
108	69	600	No barrier	No barrier
109	70	605.5	No barrier	No barrier
27	71	477	480	3
28	72	479	482	3
29	73	480.5	483.5	3
30	73	483	486	3
31	73	485	488	3
32	74	487	490	3
33	74	488.5	491.5	3
34	75	490.5	493.5	3
35	75	493	496	3
36	76	493	No barrier	No barrier
69	76	493.5	No barrier	No barrier
70	77	494	No barrier	No barrier
273	78	465	No barrier	No barrier
272	79	461	No barrier	No barrier
271	79	457.5	No barrier	No barrier
270	80	453.5	No barrier	No barrier
269	80	450	No barrier	No barrier
268	80	446.5	No barrier	No barrier
267	81	443	No barrier	No barrier
266	82	439.5	No barrier	No barrier
265	82	436.5	No barrier	No barrier
264	83	433	No barrier	No barrier
463	83	426.5	No barrier	No barrier
262	83	424.5	No barrier	No barrier
261	84	424.5	427.5	3
260	85	424.5	427.5	3
259	86	424.5	427.5	3
258	86	424.5	427.5	3
257	86	425.5	428.5	3
254	87	420	423	3
253	87	416.5	419.5	3
252	88	412.5	415.5	3

TABLE 3.4-5
LOT AND BARRIER ELEVATIONS
(CONTINUED)

Lot	Corresponding Receiver	Lot Elevation (feet)	Top of Barrier Elevation (feet)	Barrier Height (feet)
251	89	409	412	3
250	90	405.5	408.5	3
249	91	402	405	3
248	92	399	402	3
247	93	394.5	397.5	3
246	93	394	397	3
245	94	394.5	397.5	3
244	94	395	398	3
243	95	397	400	3
242	96	400	No barrier	No barrier
241	96	403.5	No barrier	No barrier
240	97	407.5	No barrier	No barrier
239	98	412	No barrier	No barrier
238	98	416.5	No barrier	No barrier
237	99	421	No barrier	No barrier
236	100	425.5	No barrier	No barrier
235	100	430	No barrier	No barrier
234	101	434	No barrier	No barrier
233	102	438	No barrier	No barrier
232	103	442	No barrier	No barrier
231	104	445.5	No barrier	No barrier
230	104	446.5	No barrier	No barrier
182	105	463.5	No barrier	No barrier
183	105	463	No barrier	No barrier
184	106	462	No barrier	No barrier
185	106	461.5	No barrier	No barrier
186	107	461	No barrier	No barrier
187	107	460.5	No barrier	No barrier
188	108	459.5	No barrier	No barrier
189	108	459	No barrier	No barrier
190	109	458.5	No barrier	No barrier
191	109	458	No barrier	No barrier
192	110	457.5	No barrier	No barrier
193	110	457	No barrier	No barrier
194	111	456.5	No barrier	No barrier
195	111	456	No barrier	No barrier
196	112	455.5	No barrier	No barrier
197	112	455	No barrier	No barrier
198	112	454.5	No barrier	No barrier
199	113	453.5	No barrier	No barrier
200	113	453	No barrier	No barrier
201	114	452.5	No barrier	No barrier
202	114	452	No barrier	No barrier
146	115	478	No barrier	No barrier
147	115	477	No barrier	No barrier
148	115	476.2	No barrier	No barrier
144	116	480	No barrier	No barrier
145	116	479	No barrier	No barrier
142	117	482	No barrier	No barrier
143	117	481	No barrier	No barrier
140	118	484	No barrier	No barrier
141	118	483	No barrier	No barrier
138	119	486	No barrier	No barrier
139	119	485	No barrier	No barrier
136	120	486	No barrier	No barrier
137	120	486	No barrier	No barrier

TABLE 3.4-5
LOT AND BARRIER ELEVATIONS
(CONTINUED)

Lot	Corresponding Receiver	Lot Elevation (feet)	Top of Barrier Elevation (feet)	Barrier Height (feet)
283	121	456.5	No barrier	No barrier
284	121	453	No barrier	No barrier
285	121	449.5	No barrier	No barrier
286	121	447	No barrier	No barrier
287	122	445.5	No barrier	No barrier
288	122	444	No barrier	No barrier
289	123	442.5	No barrier	No barrier
290	123	442	No barrier	No barrier
291	124	441.8	No barrier	No barrier
292	124	442.5	No barrier	No barrier
293	125	443.7	No barrier	No barrier
294	125	445.7	No barrier	No barrier
295	125	447.3	No barrier	No barrier
296	126	465	No barrier	No barrier
297	126	265.6	No barrier	No barrier
298	127	466.2	No barrier	No barrier
299	127	466.8	No barrier	No barrier
300	128	467.5	No barrier	No barrier
301	128	469	No barrier	No barrier
302	129	471.1	No barrier	No barrier
303	129	472.5	No barrier	No barrier
304	130	474.5	No barrier	No barrier
305	130	476	No barrier	No barrier
306	131	477.5	No barrier	No barrier
307	131	478.5	No barrier	No barrier
326	132	490.5	No barrier	No barrier
325	132	489	No barrier	No barrier
324	133	487.5	No barrier	No barrier
323	133	486.5	No barrier	No barrier
322	134	486.9	No barrier	No barrier
321	134	485.9	No barrier	No barrier
320	135	485	No barrier	No barrier
319	135	484	No barrier	No barrier
318	135	483.1	No barrier	No barrier
355	136	502.5	No barrier	No barrier
354	137	513	No barrier	No barrier
353	137	518	No barrier	No barrier

TABLE 3.4-6
MEASURED NOISE LEVELS OF
COMMON CONSTRUCTION EQUIPMENT

Equipment	Approximate Noise Level (dB(A) L_{eq})
Air compressor	81
Backhoe	85
Concrete Mixer	85
Dozer	80
Generator	78
Grader	85
Jackhammer	88
Loader	79
Paver	89
Pneumatic tool	86
Saw	78
Scraper	88
Truck	91

SOURCE: Bolt, Beranek, and Newman 1971.

NOTE: Noise levels at 50 feet from the source.

TABLE 3.4-7
TRAFFIC AND NOISE INCREASES TO OFF-SITE ROADWAYS

Roadway	Location		Existing ADT	Existing + Project ADT	Change in Noise from Existing to Existing + Project	Existing + Cumulative ADT	Existing + Cumulative + Project ADT	Change in Noise from Existing + Cumulative to Existing + Cumulative + Project	Year 2030 ADT	Year 2030 + Project ADT	Change in Noise From Year 2030 to Year 2030 + Project
	Between	And									
I-15	South of SR-76		120,000	122,261	0.1	144,343	145,252	0.0	230,091	231,000	0.0
	SR-76	Mission Road	127,000	127,904	0.0	134,408	134,560	0.0	250,849	251,000	0.0
	North of Mission Road		136,000	138,261	0.1	147,214	148,350	0.0	273,864	275,000	0.0
SR-76	South Mission Road	Via Monserate	22,025	19,722	0.2	43,970	44,500	0.1	47,470	48,000	0.0
	Via Monserate	Gird Road	20,957	22,816	0.2	43,770	44,300	0.1	45,470	46,000	0.1
	Gird Road	Sage Road	20,817	21,748	0.2	36,170	36,700	0.1	41,470	42,000	0.1
	Sage Road	Old Highway 395	24,579	21,608	0.2	38,570	39,100	0.1	42,470	43,000	0.1
	Old Highway 395	I-15 Southbound Ramps	17,274	24,805	0.0	39,349	39,500	0.0	40,849	41,000	0.0
	I-15 Southbound Ramps	I-15 Northbound Ramps	9,569	19,196	0.5	32,918	33,600	0.1	32,918	33,600	0.1
	I-15 Northbound Ramps	Pankey Road	9,439	12,960	1.3	31,288	32,500	0.2	31,288	32,500	0.2
	Pankey Road	Horse Ranch Creek Road	9,439	12,491	1.2	28,104	30,300	0.3	29,804	32,000	0.3
Old Highway 395	East Mission Road	Reche Road	5,155	6,738	1.2	18,764	19,900	0.3	18,764	19,900	0.3
	Reche Road	Stewart Canyon Road	5,646	7,681	1.3	21,861	23,300	0.3	21,861	23,300	0.3
	Stewart Canyon Road	Tecalote Lane	6,405	6,518	0.1	17,524	17,600	0.0	17,924	18,000	0.0
	Tecalote Lane	Pala Mesa Drive	6,603	6,716	0.1	19,324	19,400	0.0	19,324	19,400	0.0
	Pala Mesa Drive	SR-76	8,302	9,093	0.4	20,370	20,900	0.1	20,370	20,900	0.1
Pankey Road	Street 'R'	SR-76	0	565	N/A	8,244	8,622	0.2	8,521	8,900	0.2
	SR-76	Dulin Road	936	1,162	0.9	10,538	11,902	0.5	18,637	20,000	0.3
Horse Ranch Creek Road	Stewart Canyon Road	Baltimore Oriole	40	2,188	N/A	5,745	7,260	1.0	6,385	7,900	0.9
	Baltimore Oriole	Longspur Road	0	2,322	N/A	9,052	11,119	0.9	9,333	11,400	0.9
	Longspur Road	Harvest Glen Lane	0	2,577	N/A	13,363	16,140	0.8	13,223	16,000	0.8
	Harvest Glen Lane	Pardee South Loop	0	3,834	N/A	16,955	20,995	0.9	16,760	20,800	0.9
	Pardee South Loop	Park/School	0	5,681	N/A	16,824	21,770	1.1	17,654	22,600	1.1
	Park/School	Street R	0	5,794	N/A	16,972	21,918	1.1	17,854	22,800	1.1
	Street R	SR-76	0	3,617	N/A	9,968	12,544	1.0	11,025	13,600	0.9
Pala Mesa Road	I-15	Street R	0	1,244	N/A	6,178	7,011	0.5	6,667	7,500	0.5
Pankey Place	Pala Mesa Drive	Horse Ranch Creek Road	0	1,809	N/A	8,398	10,367	0.9	8,331	10,300	0.9

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3.5 Hazards and Hazardous Materials

This section presents a summary of a Phase I and Limited Phase II Environmental Site Assessment (ESA) dated July 2002 and updated in October 2007. The report can be found in its entirety in this EIR as Appendix J-1. Fire hazards are also analyzed due to the potential for wildland fires at the Project Site. The FPP can be found in its entirety as Appendix J-2. J-3 is an updated Public Facilities Availability Form for the Proposed Project.

3.5.1 Existing Conditions

On-site Use of Hazardous Materials

The Project Site currently supports citrus and avocado orchards that have been in production since at least 1928. Investigation of the Project Site indicated that the south-southwestern portion appears to be used for storage of tractor transmissions, parts, and other agricultural equipment. The western-northwestern portion of the Project Site is used for the storage of pesticides, nutrients, and insecticides.

Single-family residential dwellings with associated garages or sheds are located at various locations throughout the Project Site. A metal hanger/shed with associated metal enclosures is located on the south-southwestern portion of the Project Site. The metal hanger/shed also serves as the ranch office. There is a single-story office/storage shed near the pesticide storage area. Two wind machines occupy the central portion of the Project Site.

A total of 104 subsurface samples were collected and analyzed during the ESA. The results of the sampling found a low potential for hazards on the Project Site from current or historical agricultural operations.

Hazardous Materials Databases

A search of available federal, state, and local regulatory and municipal environmental records was conducted as part of the ESA and is included within Appendix J-1 of this report.

The database search found the Project Site to be identified on the San Diego County Permits Database. Two off-site potential hazardous material sites were also identified within a maximum one and one-half mile radius of the property.

Wildfire Hazards

The Project Site is adjacent to the service boundaries of the NCFPD, and within the District's SOI (see Figure 3.5-1). The Project Site is considered to be within a Hazardous Fire Area which is defined as any geographic area mapped by the State or local jurisdiction as a high, or very high hazard area, or as set forth by the Fire Agency Having Jurisdiction (FAHJ) that contains the type and condition of vegetation, topography, weather, and structure density to potentially increase the possibility of vegetation conflagration fires.

Dam Inundation

Many dams have been built in the San Diego area for the purpose of water conservation and storage. The County's Multi-Jurisdictional Hazard Mitigation Plan identifies dam failure risk levels based on dam inundation map data. A dam is considered high hazard if it stores more than 1,000 acre-feet of water, is higher than 150 feet tall, has potential for downstream property damage, and potential for downstream evacuation. Most of the County's dams are greater than 50 years old and are characterized by increased hazard potential due to downstream development and increased risk from structural deterioration and inadequate spillway capacity.

Emergency plans for dam evacuation are necessary to plan for the loss of life, damage to property, displacement of people, and other ensuing hazards that can occur from dam failure. In the event of dam failure, damage control and disaster relief would be required and mass evacuation of the inundation areas would be essential to save lives. Dam evacuation plans are maintained by the County Office of Emergency Services (OES). These plans contain information concerning the physical situation, affected jurisdictions, evacuation routes, unique institutions, and event responses. In addition, the plans include inundation maps showing direction of flow; inundation area boundaries; hospitals, schools, multipurpose staging areas; command posts/sites; and mass care and shelter facilities/sites. Unique institutions as defined by the OES include facilities such as hospitals, schools, and retirement homes.

The Henshaw Dam is a hydraulic dam that was constructed in 1923 and has a maximum capacity of 51,774 acre/feet. The dam is located in north-central San Diego County approximately 25 miles to the east of the Project Site. The dam inundation zone relative to the Proposed Project boundaries is shown in Figure 3.5-2.

Emergency Air Support

Helicopters and small planes are used in a variety of emergency response actions such as search and rescue operations and retrieving water to extinguish wildfires. The California Department of Forestry and Fire Protection (CDF) and the County of San Diego Sheriff's Department Aerial Support Detail, Air Support to Regional Enforcement Agencies (ASTREA) base carry out emergency response actions. CDF firefighters are responsible to provide comprehensive fire protection and other related emergency services, including protection of life and property. The San Diego County Sheriff's ASTREA base operates aircraft throughout San Diego County on a daily basis. These aircraft are involved in law enforcement, search and rescue, and fire related missions.

Certain tall structures can physically interfere with the implementation of an emergency response if the height of the structure or tower interferes with the ability of emergency air support services to carry out missions associated with an emergency response. Emergency and fire air support services tend to fly low to the ground for law enforcement activities, to carry out search and rescue missions, to collect water for firefighting, and to evacuate victims in remote areas. Emergency response aircraft require sufficient ground clearance to safely and efficiently function during an emergency response.

Schools

A school site is proposed within Planning Area 2, located along Horse Ranch Creek Road approximately one-half mile north of SR-76. Prior to the siting of a school, the local education agency is required to consult with local officials to identify facilities within one quarter mile of the proposed site that might reasonably be anticipated to emit hazardous air emissions or handle hazardous materials, substances, or wastes. Where such facilities are present within one-quarter mile of a proposed school site, the local education agency is required to make a finding either that no such facilities were identified; or that they do exist, but the health risks do not or will not constitute an actual or potential endangerment of public health at the site or that corrective measures will be taken that will result in emissions mitigation to levels that will not constitute endangerment.

Vectors

A vector is any insect, arthropod, rodent, or other animal of public health significance that can cause human discomfort, injury or is capable of harboring or transmitting disease. Disease causing microorganisms can be carried by a "vector," such as a flea, tick, or mosquito that transfers the disease agent from its source in nature to a human host. In the County of San Diego, the most significant vector populations include mosquitoes, rodents, flies, and fleas.

Vector sources occur where site conditions provide habitat suitable for breeding. Within a new development such as the Proposed Project, a standard requirement is the incorporation of measures, or BMPs, to reduce stormwater flow rates, allow stormwater to infiltrate back into the ground, and to reduce constituent concentrations in runoff. However, BMPs used to manage runoff often provide aquatic habitats suitable for mosquitoes and other vector species as an unintended consequence of their implementation.

Existing Regulations

California Health and Safety Code

The California Health and Safety Code (H&SC) provides regulations relating to the handling, generation and storage of hazardous substances. H&SC Chapter 6.95 provides the framework for two San Diego County programs: the Hazardous Materials Business Plan (HMBP) program and the California Accidental Release Prevention (CalARP) program. Pursuant to H&SC Chapter 6.95, the HMBP and CalARP provides threshold quantities for regulated hazardous substances. When the indicated quantities are exceeded, a HMBP or Risk Management Plan (RMP) is required.

Chapter 6.5 of the H&SC, the Hazardous Waste and Control Act regulates the generation, treatment, storage and disposal of hazardous waste. Hazardous Waste is any material or substance that is discarded, relinquished, disposed or burned, or for which there is no intended use or reuse, and the material or substance causes or significantly contributes to an increase in mortality or illness; or the material or substance poses a substantial present or potential hazard to human health or the environment.

Chapter 6.7 of the H&SC outlines the requirements for Underground Storage Tanks (USTs), identifies requirements for corrective actions, cleanup funds, liability, and the responsibilities of owners and operators of USTs.

California Human Health Screening Levels

The California Human Health Screening Levels (CHHSLs) can be used to screen sites for potential human health concerns where releases of hazardous chemicals to soils have occurred. CHHSLs are concentrations of 54 hazardous chemicals in soil or soil gas that the CalEPA considers to be below thresholds of concern for risks to human health. The CHHSLs were developed by the Office of Environmental Health Hazard Assessment on behalf of CalEPA, and are contained in their report entitled Human-Exposure-Based Screening Numbers Developed to Aid Estimation of Cleanup Costs for Contaminated Soil. The thresholds of concern used to develop the CHHSLs are an excess lifetime cancer risk of one in a million (10^{-6}) and a hazard quotient of 1.0 for non-cancer health effects. The CHHSLs were developed using standard exposure assumptions and chemical toxicity values published by the USEPA and CalEPA.

Under most circumstances, the presence of a chemical in soil, soil gas, or indoor air at concentrations below the corresponding CHHSLs can be assumed to not pose a significant health risk to people who may live (residential CHHSLs) or work (commercial/industrial CHHSLs) at the site.

California Education Code

On January 1, 2000, two new laws affecting proposed school sites became effective: Assembly Bill (AB) 387 (Wildman) and Senate Bill (SB) 162 (Escutia). The bills amended the California Education Code (CEC) requiring that the Department of Toxic Substances Control be involved in the environmental review process for the proposed acquisition and/or construction of school properties that will use state funding. The intent of the regulations is to address concerns over school site properties that are or may be contaminated by hazardous materials and may pose a health threat to children and school faculty.

The CEC requires a Phase I ESA be completed prior to acquiring a school site or engaging in a construction project. Depending on the outcome of the Phase I ESA, a Preliminary Environmental Assessment and remediation may be required. Considering the strict requirements for school safety set by the CEC for school site selection, it is important that where schools already exist or are planned, that new land uses are not permitted that would represent a significant hazard to the safety of children.

San Diego County, Site Assessment and Mitigation Program

San Diego County's Site Assessment and Mitigation (SAM) Program, within the Land and Water Quality Division of the Department of Environmental Health (DEH), consists of project managers, field technicians, supervisors, and support staff, whose primary purpose is to protect human health, water resources, and the environment within San Diego County by providing oversight of assessments and cleanups in accordance with the California H&SC. The SAM's Voluntary Assistance Program also provides staff consultation, project oversight, and technical or environmental report evaluation and

concurrence (when appropriate) on projects pertaining to properties contaminated with hazardous substances.

County of San Diego, Underground Storage Tank Program

The DEH Hazard Management Department (HMD) Underground Storage Tank (UST) Program administers and enforces federal and state laws and regulations and local ordinances for the construction/installation, modification, upgrade, and removal of USTs in San Diego County. If contamination is discovered or likely to be present, owners or operators of USTs are required by law to report the contamination to the DEH HMD and SAM Programs and to take corrective action.

County of San Diego Fire Code

The County is unique within the state of California in having 16 fire protection districts within its boundaries. For the purposes of prescribing regulations in the unincorporated area of the County, the applicable fire code is known as the County of San Diego Fire Code, County Code of Regulatory Ordinances Title 9 Division 6 Chapter 1, which adopts and amends the California Fire Code (CCR Title 24 part 9). The County Fire Code consists of local fire protection district ordinances that have modified the Fire Code portion of County Building Code, County Code of Regulatory Ordinances Title 9 Division 1 & 2, which adopts and amends the California Building Code (CCR Title 24 part 2), and includes ignition-resistant construction requirements (Chapter 7A) for wildland fire areas. The purpose of the Code is the protection of the public health and safety, which includes permit and inspection requirements for the installation, alteration or repair of new and existing fire protection systems, and penalties for violations of the code. The Code provides the minimum requirements for access, water supply and distribution, construction type, fire protection systems, and vegetation management. Additionally, the fire code regulates hazardous materials and associated measures to ensure that public health and safety are protected from incidents relating to hazardous substance releases.

County of San Diego General Plan- Public Facility Element

The Fire Protection and Emergency Services section of the Public Facility Element of the County General Plan provides a detail of the County's existing fire protection services. The Public Facility Element identifies that rapid response to emergency calls is an essential requirement to providing adequate fire and emergency services.

Objective one seeks to provide, "Sufficient fire and emergency services facilities to meet established emergency travel time objectives to minimize fire and emergency risk."

Travel times are based on category of land use as shown in Table 3.5-1 below.

TABLE 3.5-1
EMERGENCY SERVICES TRAVEL TIMES

Land Use Category	Maximum Travel Time	Land Use Category Defined
Town	5 minutes	Single-family residential lots of less than two acres, or more intensive uses such as multi-family residential. Includes all industrial development and all commercial development except neighborhood commercial
Estate	10 minutes	Single-family residential lots from two to four acres in size. Includes neighborhood commercial development.
Rural	20 minutes	Large lot single-family residential and agricultural development. Lot sizes of greater than four acres.

Mosquito Abatement and Vector Control District Law

The intent of the Mosquito Abatement and Vector Control District Law is to create and continue a statutory authority for special districts (or Counties exercising the powers of a district through an existing department or agency) to conduct effective programs for the surveillance, prevention, abatement, and control of mosquitoes and other vectors. It encourages vector control districts to cooperate with other public agencies and to adapt the powers and procedures provided by the law to meet their own local circumstances. Sections §2060-2067 of the Mosquito Abatement and Vector Control District Law addresses the abatement of public nuisances. It grants power to a district to take the necessary steps to abate a public nuisance including the issuance of a notice to inform the owner that the nuisance exists and the steps they should take to abate the nuisance and prevent recurrence.

3.5.2 Guidelines for the Determination of Significance

For the purpose of this EIR, the basis for determination of significance are the County's Guidelines for Determining Significance for Emergency Response Plans, adopted July 30, 2007 (Guidelines 1, 2, & 10); Hazardous Materials and Existing Contamination; adopted July 30, 2007 (Guidelines 3 through 7); Wildland Fire and Fire Protection, adopted March 19, 2007 (Guidelines 8 & 9); and Vectors, adopted July 30, 2007 (Guidelines 11 through 13).

The proposed project would result in a significant hazard impact if:

1. The project proposes one of the following unique institutions in a dam inundation zone as identified on the inundation map prepared by the dam owner:
    a. Hospital
    b. School
    c. Skilled nursing facility
    d. Retirement home
    e. Mental health care facility

f. Care facility with patients that have disabilities

g. Adult and childcare facility

h. Jails/detention facility

i. Stadium, arena, amphitheater

j. Any other use that would involve concentrations of people that could be exposed to death in the event of a dam failure

2. The project proposes a structure or tower 100 feet or greater in height on a peak or other location where no structures or towers of similar height already exist and as a result, the project could cause hazards to emergency response aircraft resulting in interference with the implementation of an emergency response.

3. The project is a business, operation, or facility that proposes to handle hazardous substances in excess of the threshold quantities listed in Chapter 6.95 of the H&SC, generate hazardous waste regulated under Chapter 6.5 of the H&SC, and/or store hazardous substances in underground storage tanks regulated under Chapter 6.7 of the H&SC and the project will not be able to comply with applicable hazardous substance regulations.

4. The project is a business, operation, or facility that would handle regulated substances subject to CalARP RMP requirements that in the event of a release could adversely affect children's health due to the presence of a school or day care within one-quarter mile of the facility.

5. The project is located on or within one-quarter mile from a site identified in one of the regulatory databases compiled pursuant to Government Code Section 65962.5 or is otherwise known to have been the subject of a release of hazardous substances, and as a result the project may result in a significant hazard to the public or the environment.

6. The project proposes structure(s) for human occupancy and/or significant linear excavation within 1,000 feet of an open, abandoned, or closed landfill (excluding burnsites) and as a result, the project would create a significant hazard to the public or the environment.

7. The project is proposed on or within 250 feet of the boundary of a parcel identified as containing burn ash (from the historic burning of trash); and as a result, the project would create a significant hazard to the public or the environment.

8. The project cannot demonstrate compliance, or offer Same Practical Effect, with applicable fire regulations, including but not limited to the California Fire Code, California Code of Regulations, County Fire Code, or the County Consolidated Fire Code.

9. The project is inconsistent with recommendations, including fuel modification, of a required comprehensive Fire Protection Plan.

10. The project cannot meet the emergency response objectives identified in the Public Facilities Element of the County General Plan or offer Same Practical Effect.

11. The project proposes a BMP for stormwater management or construction of a wetland, pond or other wet basin that could create sources of standing water for more than 72 hours, and as a result, could substantially increase human exposure to vectors, such as mosquitoes, that are capable of transmitting significant public health diseases or creating nuisances.

12. The project proposes a use that involves the production, use and/or storage of manure or proposes a composting operation or facility and as a result, could substantially increase human exposure to vectors that are capable of transmitting significant public health diseases or creating nuisances.

13. The project would result in a substantial increase in the number of residents locate within one-quarter mile of a significant offsite vector breeding source; including but not limited to, standing water (e.g. agricultural ponds, reservoirs) and sources of manure generation or management activities (e.g. confined animal facilities, horse keeping operations, composting operations).

3.5.3 Analysis of Project Effects and Determination as to Significance

Dam Inundation (Guideline 1)

A significant impact would occur if the project proposed one of ten specified unique institutions in a dam inundation zone. Unique institutions located or proposed in dam inundation zones could result in a significant loss of life due to the size and nature of the uses and the difficulty with evacuating people in the event of a dam failure. Unique institutions, as defined in the County of San Diego Guidelines for Determining Significance for Emergency Plans, include the following types of facilities: hospital, school, skilled nursing facility, retirement home, mental health care facility, care facility with patients that have disabilities, adult and childcare facility, jails/detention facility, and stadium/arena/amphitheater. The inability to efficiently evacuate unique institutions could cause a significant loss of life.

The Proposed Project includes the construction of a school within Planning Area 2. As shown in Figure 3.5-2, the proposed school site is located outside of the dam inundation zone. Therefore, impacts related to significant losses associated with the inability to efficiently evacuate the school would be **less than significant**.

Emergency Air Support (Guideline 2)

A significant impact would occur if the project included a structure or tower 100 feet or greater in height, and as a result cause hazards to emergency response aircraft resulting in interference with the implementation of an emergency response.

The Proposed Project's Community Design Guidelines include a 35-foot height limitation on all structures. Because no structure or tower 100 feet or greater in height would be permitted to be built, there would be no interference with emergency response missions

utilizing low flying air craft. Therefore, impacts to emergency air support would be **less than significant**.

Hazardous Substance Use (Guideline 3)

A significant impact would occur if the project is a business, operation or facility that proposes to handle, generate, and/or store hazardous substances regulated by Chapters 6.95, 6.5 and 6.7 of the California H&SC. The California H&SC §25501(o) defines hazardous materials as any material that because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or future hazard to human health and safety or to the environment, if released into the workplace or the environment.

Implementation of the Proposed Project would create residential and associated land uses. The Proposed Project does not include the handling of hazardous substances as part of a business subject to the aforementioned regulations. Specifically, the proposed land uses would not result in transport, emission, or disposal of hazardous materials in excess of the threshold quantities listed in Chapter 6.95 of the H&SC, generate hazardous waste regulated under Chapter 6.5 of the H&SC, and/or store hazardous substances in underground storage tanks regulated under Chapter 6.7 of the H&SC. Therefore, impacts from hazardous materials use would be **less than significant**.

Hazardous Substances within One-Quarter Mile of a School/Day Care Facility (Guideline 4)

A significant impact would occur if the project is a business, operation, or facility that would handle regulated substances subject to CalARP RMP that in the event of a release could adversely affect children's health due to the presence of a school within one-quarter mile of the facility.

The Proposed Project does not include any potential for facilities that handle regulated substances to represent a significant hazard to children when located within one-quarter mile of a school or day care. Regulated substances are chemicals that pose a major threat to public health and safety or the environment because they are highly toxic, flammable or explosive. Regulated substances are subject to CalARP RMP requirements when handled at threshold levels identified in the CCR. The specific threshold levels are not relevant because no regulated substances will be handled as a result of implementation of the Proposed Project.

The adjacent Campus Park development includes a proposal for commercial uses which are unknown at this time. Although the Proposed Project does include the possible development of a school, impacts resulting from the handling of a regulated substance within the Campus Park site would be **less than significant** because these uses would all be located greater than one-quarter mile from the proposed school site. Additionally, the proposed on-site WWTP is located greater than ¼ mile from the potential school site. Therefore, impacts associated with the proximity of the school to the WWTP would be **less than significant**.

Hazardous Materials Site/ Site Subject to Release of Hazardous Substance (Guidelines 5)

A significant impact would occur if the Proposed Project would be located on or within one-quarter mile of a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 or is otherwise known to have been subject to a release of hazardous substances and, as a result, would create a significant hazard to the public or the environment.

Hazardous Materials Site

The Project Site is neither on nor within one-quarter mile of a listed hazardous materials site. Therefore, **no impact** is associated with the hazardous materials site list.

Site Subject to Release of Hazardous Substance

Historical Agricultural Use

A Phase I and limited Phase II ESA was performed on the Project Site in 2007. The study found that the property has been used for agricultural purposes (primarily citrus and avocado) since at least 1928. Agricultural activities include the application of fertilizers, herbicides, and pesticides. As such, most of the recognized environmental conditions investigated (Figure 3.5-3) are associated with this past agricultural use.

In general, soils contaminated by past agricultural activities are a concern, because of land use changes involving the construction of housing developments on former agricultural lands. Investigation of suspected pesticide contamination on properties proposed for residential development typically includes soil sampling in areas where materials were stored, handled, and mixed in addition to identifying the historical crops grown, pesticides applied, and the methods of application. The investigation and any remedial actions related to pesticide contamination focuses on the elimination of human or environmental exposure.

Although concentrations of pesticides in soil may exceed the Title 22 levels for a hazardous waste, legally applied pesticides, and the resulting residues in soil, are not regulated as hazardous waste unless transported off the subject property (H&SC Section 25117). Constituents of concern at former agricultural sites include organochlorine pesticides and metals which may pose a human health risk. The Phase I and limited Phase II ESA performed on the Project Site evaluated agricultural chemical residues on-site against Preliminary Remediation Goals (PRG) or CHHSLs. The evaluation resulted in a finding that impacts would not be significant; however, there are two irrigation ponds on-site that were not sampled. The possibility that the ponds could contain significant levels of chemical residues represents a potentially **significant impact** (**HZ-1**).

Smudge pots are oil-burning devices used to prevent frost on fruit trees. Smudge pots are placed between trees in an orchard, allowing the heat and smoke from the burning oil to prevent the accumulation of frost on the fruit of the grove. Smudge pots were commonly used for several decades in California citrus groves. Smudge pots were observed at several locations within groves on the Project Site. Staining and hydrocarbon odors were detected within the vicinity of several of the smudge pot

locations and the surficial soil in the immediate vicinity of the smudge pots appears to have been impacted by total petroleum hydrocarbons (TPH). Exposure to TPH compounds can result in central nervous system damage, disrupt immune system functions or cause cancer. Therefore, the existence of TPH on-site represents a potentially **significant impact** (**HZ-2**).

Historical Construction Materials

Historic records indicate that the residential properties located on-site were constructed between the early 1970s and mid-1980s. Additionally, several large construction debris piles are located within the Project Site. Redevelopment or demolition of these residential buildings or removal of the debris piles could result in the potential release of hazardous substances such as asbestos or lead-based paint. Potential exposure to these contaminants represents a potentially **significant impact (HZ-3).**

Existing/Proposed Agricultural Use

The agricultural operations on the Project Site store and use pesticides, miticides, and bioxides. These chemicals are stored in aboveground storage tanks (ASTs) and plastic containers located in the central portion of the Project Site. Although concentration levels of these chemicals is well below the PRG and Soluble Threshold Limits Concentrations (STLC), all ASTs would have to be removed and disposed according to applicable regulations prior to development. Therefore, impacts associated with the storage of pesticides would be **less than significant.**

Additionally, pesticides are applied to the existing avocado groves by helicopter spraying. Upon implementation of the Proposed Project, the agricultural acreage would be limited to the 49.3 acres of groves that are proposed to remain within agricultural open space. This limited acreage would not be sprayed by helicopter. Pesticide use associated with the on-site agricultural lot would occur in accordance with existing regulations and applicable requirements of the Department of Agriculture Weights and Measures (AWM). The HOA will ensure all applicable pesticide use permits are obtained from the AWM and that applicable permit conditions are complied with for pesticide use on the commonly owned lot. Therefore, compliance with applicable pesticide use regulation would ensure that impacts to residents would be **less than significant.**

The existing residential buildings located on-site utilize septic tank systems. Additionally, there is a historic water well located on-site, but the location is currently unknown. The Proposed Project includes the abandonment and removal of all on-site septic systems, as well as the locating and removal of the historic water well in accordance with all applicable regulations and under permit and approval from the County of San Diego Department of Health. Therefore impacts associated with the on-site septic systems and the historic well are **less than significant**.

Hazardous Site Location (Guidelines 6 and 7)

A significant impact would occur if the project proposed structures for human occupancy and/or significant linear excavation within 1,000 feet of a landfill, or if the Project Site is located on or within 250 feet of the boundary of a parcel identified as containing burn ash and, as a result, would create a significant hazard to the public or the environment.

The Project site is not located within 1,000 feet of a landfill (Guideline 6) or within 250 feet of a burn site (Guideline 7). Impacts associated with such hazards are **less than significant**.

Fire Hazard (Guidelines 8 and 9)

A significant impact would occur if the project could not demonstrate compliance, or offer Same Practical Effect, with applicable fire regulations, or is inconsistent with recommendations, including fuel modification, of a required comprehensive Fire Protection Plan.

The Project Site is adjacent to the service boundaries of the NCFPD, and within the District's SOI. Thus, project implementation will require annexation into the NCFPD.

The Project Site is located within a declared High Fire Hazard Severity Zone. This classification is due to the type of vegetation, fire history and rough topography in the area. Specifically, the general area of the Project Site is known to have an active wildland fire history; there have been more than 10 large wildland fires burning more than 100 acres during the past 50 years. Local weather conditions such as wind speed and live and dead fuel moistures are a key ingredient to fire intensity and rate of spread. The most critical wind pattern to the Project Site is an off-shore wind coming out of the north/northeast, typically referred to as a Santa Ana wind. Due to this weather pattern, historical fires in the area have burned rapidly during hot, dry, and windy weather, and the majority of these occurred to the north and west of the Project Site (Figure 3.5-4). In order to further assess wildland fire hazards and risks associated with the Proposed Project, a FPP for the Proposed Project was prepared by Firewise 2000, Inc. and is included in its entirety in Appendix J-2.

The Proposed Project includes native vegetation comprised of both coastal sage scrub and chaparral to remain on-site within open space located along the northern and eastern perimeter of the Project Site. Additionally, 49.3 acres of avocado and citrus groves will be retained in locations primarily adjacent to the natural open space. Residential planning areas are proposed adjacent to both the agricultural and natural open space areas. The vegetation both on-site and surrounding the entire Project Site therefore can be a threat to carry a fast rate-of-spread and moderate to very high intensity wildland fire from the north or east.

A Fire Fuel Assessment, or fire model, is included in the FPP. This evaluation utilized the BEHAVE PLUS 3.0.1 Fire Modeling System to provide a worst-case scenario wildland fire event based on site topography, fuel loads, weather conditions and maximum heat production. The results of the model, coupled with the expertise of the modeler, were used to identify minimum fuel modification and brush clearing distances to assure relatively safe building sites.

Different fuel models were used for different areas within the Project Site. Each assessment considered the type of fuel, topography and exposure to prevailing winds:

- Northern Boundary: Due to the development areas abutting both natural and orchard vegetation proposed to remain within the northern project boundaries, the fire model analyzed this area as Fuel Model 18 (70% coastal sage/ buckwheat) and Fuel Model 6 (30% intermediate chaparral with brush up to six

feet in height). A fire burning in this "Combined Fuel Model 18/6" can be expected to expose adjacent structures to one to three minutes of significant radiant and convective heat. This fuel model also considered the location of the Project Site, on the west side of Monserate Mountain where it would be exposed to strong north or northeast Santa Ana winds up to 60 mph, as well as the moderately steep slopes of 25 to 50 percent. Although the slopes are downhill, generally advantageous to reduce fire hazard potential, the model identified potential flame length of 43.8 feet.

- Eastern Boundary: Natural and orchard fuels are to remain along the entire eastern boundary of the Project Site. The primary area of concern is the homes proposed to be located on the eastern perimeter of the remaining vegetation. This area was analyzed using Fuel Model 18 with projections of an extreme Santa Ana wind of 60 mph on downhill slopes of 55 percent. The model identified potential flame length of 42.1 feet.

- Southern Boundary: The service road for the WWTP is proposed along nearly all the southern edge of the Project Site. This area was analyzed using Fuel Model 18, considering a near level slope in alignment with a west or southwest wind pattern. This assessment included both a "rare event" 30 mph wind and "typical summer day" wind of 10 mph. The model identified potential flame length of 33.8 feet and 19.6 feet, respectively.

- Western Boundary: Vegetative fuels along the western boundary of the Project Site are lighter that those found on the other boundaries due to frequent disturbances and identified for fuel modeling purposes as intermediate grass of two feet in height, Fuel Model 2. The vegetation so located on nearly level to slightly sloping topography of three to 15 percent. The greatest weather concern in this area is a "rare event" 30 mph wind. The model identified potential flame length of 19.0 feet. This assessment also considered the potential of a fire burning west of the western boundary resulting in the potential of a crown fire developing in the riparian vegetation especially in areas with high accumulations of dead material located in the tree canopy. Such a fire could produce flame lengths of 29.2 feet.

As a result of the findings of the fire modeling, project design features were incorporated into the Proposed Project including the creation of fuel modification zones, guidelines relating to the use of ignition resistant building materials, road requirements, placement and flow of fire hydrants, and the provision of emergency access.

Fuel Modification Zones: Due to potential flame lengths, the FPP recommends fuel modification zones totaling 100 feet to assure adequate fire protection of all structures. Specifically, "Zone A" is comprised of the first 50 feet around structures and provides defensible space for fire suppression forces to protect those structures from radiant and convective heat. It is an irrigated zone, free of all combustible construction, firewood, propane tanks, fuel, and flammable native and ornamental vegetation. "Zone B" is an additional 50 feet beginning at the outer edge of "Zone A." To establish the required fuel modification to the west of the proposed multi-family units in PA1, the applicant will obtain a permanent easement for fuel management of the adjacent property.

Figure 3.5-5 shows the Conceptual Fire Protection Plan Map which includes the location of the fuel modification zones. Acceptable plantings and required landscaping and maintenance for both Zone A and Zone B are detailed in the FPP. Additionally, the Proposed Project's Homeowners Association will be responsible to ensure that brush clearance regulations are maintained.

Ignition Resistant Building Materials: The County Fire and Building Codes provide a two tiered approach for the requirement that all new construction use ignition resistive building materials. Basic ignition resistive construction materials are required for all new construction. Enhanced ignition resistive materials are required for structures subject to one or more of the following special hazards or conditions: high fuel loads, steep topographic conditions, less than 100 feet of fuel modification, or areas identified as "high to very high fire hazard areas."

Road Requirements: All on-site roads will be subject to applicable road standards relating to width, grade and surface type as provided in County Fire Code sections 902.2.2.1, 902.2.2.6, and 902.2.2.2, respectively. The FPP specifically requires that no road within the development shall exceed 20 percent grade, with a minimum width of 24 feet within the multi-family portion of the development. All cul-de-sacs of greater than 150 feet in length shall be provided with a minimum 42 foot AC radius turnaround. The FPP additionally concludes that roadside fire clearing is required within 30 feet of the roadway edge for new roads and within 20 feet of the roadway edge for existing roads. Figure 3.5-5 details the areas of the Proposed Project requiring roadside fire clearing.

Fire Hydrants: The FPP identifies the need for a minimum of 40 residential type fire hydrants having a flow capacity of supplying 1,500 GPM at 20 pounds residual pressure with not less than 2,500 GPM available in the mains. Hydrants are required to be placed at intersections, at the beginning radius of cul-de-sacs and at intervals of not less than 650 feet in single family residential areas. In multi-family areas, commercial type fire hydrants are required to be installed at intersections, at the beginning radius of cul-de-sacs and at intervals of not less than 300 feet of fire access roadways.

Emergency Access: Emergency access is required to assure a reliable means of egress for residents during a fire event that is safe and separate from the primary access. Fire access for the Proposed Project will be provided via a northeasterly extension of Street "E" to Rice Canyon Road. This fire access will meet emergency access requirements.

The FPP provides direction for assuring that a community is reasonably safe from fire hazards. Based on the fire modeling and commentary included in the FPP, project design measures have been included in the Proposed Project relating to fuel modification zones, use of ignition resistant building materials, road requirements, fire hydrants, and the provision of fire access. As a result of these project design measures hazards associated with wildfires will be **less than significant**.

Emergency Response (Guideline 10)

A significant impact would occur if the project could not meet emergency response objectives identified in the Public Facility Element of the County General Plan or offer Same Practical Effect. Projects must comply with the emergency travel time requirements specified in the Public Facility Element of the General Plan. Travel time is defined as the estimated time it will take for a responding agency to reach the furthest

structure in a proposed development project. Travel time is determined by measuring the most direct reliable route with consideration given to safe operating speeds for heavy fire apparatus.

Pursuant to the land use category definitions in the Public Facility Element, the Proposed Project would be considered a “town” and subject to a five minute maximum travel time for emergency response.

The FPP prepared for the Proposed Project addresses fire department response times. The study concludes that residents of the Proposed Project will be within a three to five minute initial response time for NCFPD Station #4 located at 4375 Pala Mesa Drive (Figure 3.5-1). Specifically, traveling at 35 mph, the furthest dwelling unit can be reached in five minutes, which is consistent with the General Plan requirement (see FPP, Appendix J-2). Therefore, the Proposed Project will meet emergency response objectives identified in the Public Facility Element and impacts associated with emergency response time will be **less than significant**.

Vectors (Guidelines 11 through 13)

A significant impact would occur if the project would substantially increase human exposure to vectors capable of spreading disease by proposing a vector breeding source, including but not limited to, sources of standing water for more than 72 hours (e.g., ponds, stormwater management facilities, constructed wetlands); or proposing a use that involves the production, use and/or storage of manure or a composting operation; or proposing a substantial increase in the number of residents located within one-quarter mile of an existing off-site vector breeding source.

The Proposed Project would not be within one-quarter mile of an existing off-site vector source nor would the Proposed Project involve the use, production or storage of manure. The Proposed Project does include the construction of stormwater management facilities intended to relieve potential affects of stormwater run-off including the creation of sources of standing water.

Stormwater BMPs could result in vector production through the pooling or ponding of water for time sufficient to permit the emergence of adult mosquitoes. In order to prevent such infestation, captured water must be discharged within 72 hours, existing mosquitoes must be denied assess to standing water and/or the habitat made less suitable for mosquito breeding. The SWMP for the Proposed Project is included in its entirety in Appendix M-1. The SWMP provides a discussion of those BMPs required to be included in the Proposed Project’s design in order to assure the control and maintenance of stormwater run-off resulting from the construction of new impervious surfaces and redirection of on-site drainage. Specifically, the following BMPs, included in the Proposed Projects design, would preclude vector breeding: 1) all hydrodynamic separators would be designed to exclude vectors from enclosed sources of standing water in structural BMPs; and 2) all detention basins would be designed for rapid discharge, completely draining within 24 to 72 hours in order to prevent basins from becoming sources for vectors.

The on-site WWTP could result in exposure to vectors. Standing water in excess of 72 hours is not expected within treatment facilities, however will be likely within the wet weather ponds. The primary method of vector control, specifically to prevent mosquito

breeding for the wet weather ponds will be vegetative management and chemical control, as necessary. The wet weather ponds are designed to operate so that half of the ponds are filling while the other half are empty. This allows sufficient time to control and remove emergent vegetation conducive to mosquito production. As necessary, mosquito larvicides may be applied within the ponds to deter mosquito breeding. The U.S. EPA reports that, when used properly, mosquito larvicides are of no concern for human health threats and do not pose risks to wildlife or the environment.

Implementation of the Proposed Project would include the construction of stormwater BMPs and vector control measures. The stormwater system would be designed to ensure that 1) existing vectors are excluded from stormwater facilities and 2) habitat suitable for vector breeding is minimized. Vector control within the WWTP's wet weather ponds would be maintained through pond design, and application of larvicides, as needed. These design measures would ensure that impacts associated with vectors would be **less than significant**.

3.5.4 Cumulative Impact Analysis

The cumulative study area for potential impacts associated with hazards would be different based on the particular hazard.

On-Site Contamination

Impacts to residents of the Proposed Project from existing on-site hazardous materials can be mitigated to a level of less than significant with the implementation of project design features and mitigation measures **M-HZ-1, M-HZ-2, and M-HZ-3 a and b** listed in Section 3.5.5 below. Similar measures will be implemented for the other cumulative projects under consideration. Therefore, no cumulative impacts from on-site hazards would result from development of the Proposed Project.

Dam Inundation

The cumulative study area related to potential hazards from a dam inundation zone would be the area of the zone. As shown in Figure 3.5-2, the areas that lie within the dam inundation zone from the Henshaw Dam in the vicinity of the Proposed Project are primarily used for agricultural purposes with the exception of the Lake Rancho Viejo development. A portion of the Proposed Project lies within the mapped dam inundation zone; however, direct impacts were determined to be less than significant. No cumulative impacts will occur as a result of the Proposed Project.

Fire Hazard

Due to the unpredictable and damaging nature of a wildfire, the entirety of the undeveloped portions of San Diego County could be considered the cumulative impact area for fire hazard impacts. To study such an area would be unreasonable; however, the requirement for stringent fire protection plans and the implementation of regulations throughout the county and surrounding cities assure that site specific measures are taken to address potential impacts. Generally, when a project is constructed it results in the removal of available flammable fuels for wildfire to consume and breaks up fuel continuity. This effectively gives fire suppression resources an opportunity to contain and control a wildfire. The Proposed Project has prepared an FPP that addresses the project's specific risk for wildfire impacts. The FPP reduces wildfire impacts through

design measures, landscaping standards, and operational procedures. Additionally, the Proposed Project is required to adhere to Fire Code standards of construction and land development. Based on acceptance of the FPP, associated landscaping plans, and fuel modification zones, implementation of the Proposed Project would not contribute to any significant cumulative impacts related to wildfires.

Vectors

As stated in Section 3.5.3 above; on-site vector control would be accomplished through design measures that ensure rapid drainage on-site and the removal of opportunities for vector breeding (e.g., standing water). The SWMP for the project includes BMPs which ensure that there would be no significant impacts associated with vectors. Additionally, should it be required, pest control within the agricultural groves that are to be preserved on-site would be conducted at the direction of the HOA. Therefore, implementation of the Proposed Project would not contribute to any significant cumulative impacts related to vector infestation.

3.5.5 Mitigation Measures Proposed to Minimize the Significant Effects

M-HZ-1 Prior to grading, irrigation water shall be removed from the two on-site irrigation ponds and soil samples from the bottom of the ponds shall be collected and analyzed for potential agricultural residues, to the satisfaction of the Director of DEH. If contamination is present, provide evidence to the satisfaction of the Director of DEH that all contaminated soils from the irrigation ponds have been remediated under the oversight of the DEH's SAM Program or removed and properly disposed of at an appropriately permitted facility, in accordance with government agency regulations.

M-HZ-2 Prior to grading, surficial soil in the vicinity of the smudge pots and elsewhere on the property where minor surficial staining is evident shall be excavated, removed from the site, and properly disposed of at an appropriately permitted facility, in accordance with government agency regulations and to the satisfaction of the County DEH.

M-HZ-3a Prior to issuance of a building permit that includes demolition of on-site structures and prior to commencement of demolition or renovation activities, a facility survey shall be performed to determine the presence or absence of ACMs located in the buildings to be demolished. Suspect materials that will be disturbed by the demolition or renovation activities shall be sampled and analyzed for asbestos content, or assumed to be asbestos containing. The survey shall be conducted by a person certified by Cal/OSHA pursuant to regulations implementing subdivision (b) of Section 9021.5 of the Labor Code, and shall have taken and passed an EPA-approved Building Inspector Course. Should regulated asbestos containing materials be found, it shall be handled in compliance with the San Diego County Air Pollution Control District Rule 361.145 – Standard for Demolition and Renovation. Evidence of completion of the facility survey shall be submitted to County DEH and shall consist of a signed, stamped statement from the person certified to complete the facility survey indicating that the survey has been completed and that either regulated asbestos is present or absent. If present, the letter shall describe the procedures that will be taken to remediate the hazard.

M-HZ-3b Prior to issuance of a building permit that includes demolition of on-site structures and prior to commencement of demolition or renovation activities, a survey shall be performed by a California Department of Health Services (DHS) certified lead inspector/risk assessor to determine the presence or absence of lead based paint (LBP) located structures to be demolished. All lead containing materials scheduled for demolition must comply with applicable regulations for demolition methods and dust suppression. Lead containing materials shall be managed in accordance with applicable regulations including, at a minimum, the hazardous waste disposal requirements (Title 22 California Code of Regulations [CCR] Division 4.5), the worker health and safety requirements (Title 8 California Code of Regulations Section 1532.1), and the State Lead Accreditation, Certification, and Work Practice Requirements (Title 17 CCR Division 1, Chapter 8). The survey must be submitted to and deemed complete by the County DEH.

3.5.6 Conclusion

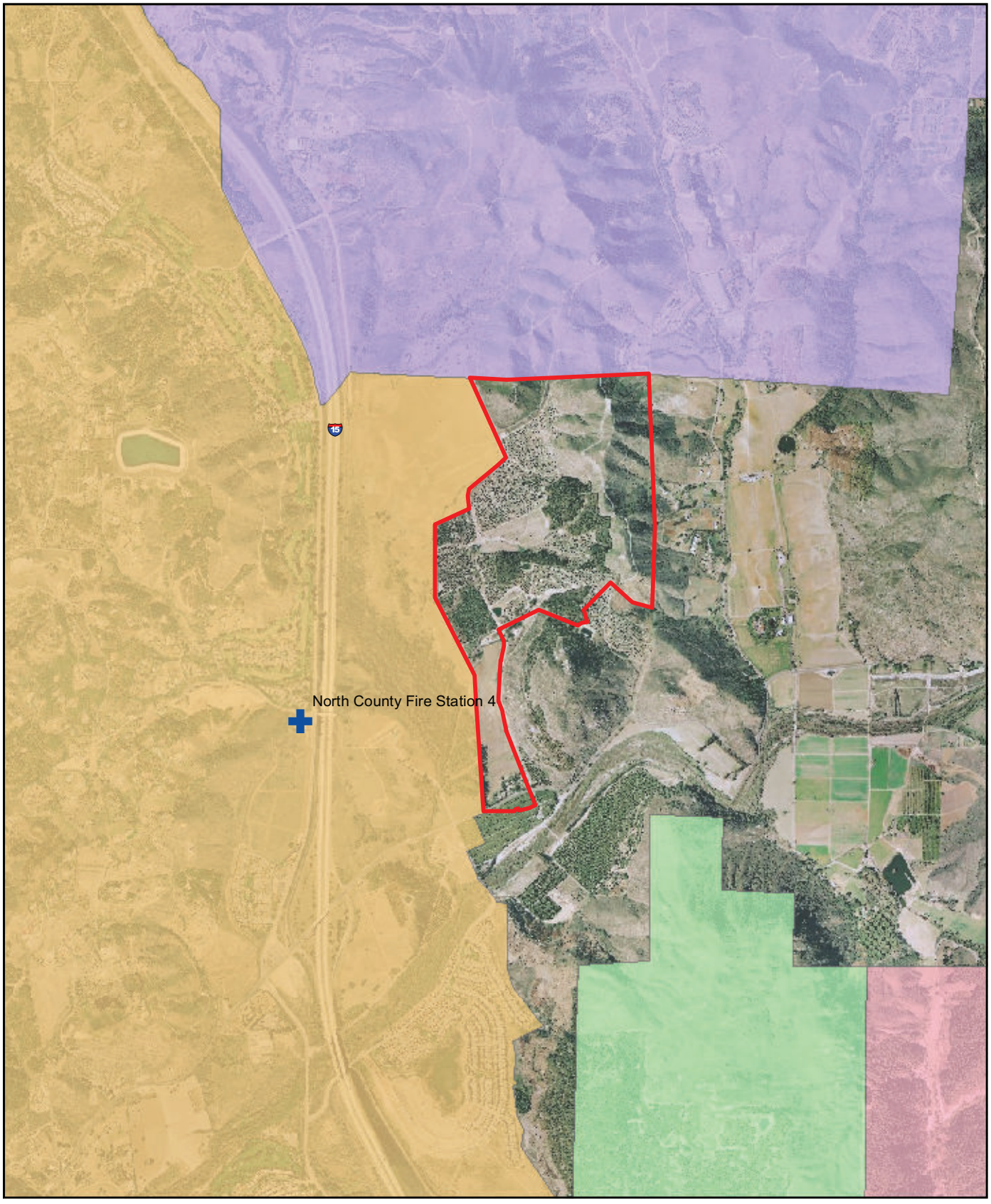
There are two irrigation ponds located on the Project Site. The potential for chemical residue within these ponds represents a potentially significant impact (HZ-1). Mitigation measure M-HZ-1 requires the analysis of soil samples from within the ponds to determine whether they have been contaminated. Depending on the results of the testing, remediation and disposal action shall be taken under the oversight and direction of DEH. Implementation of this measure assures the detection and remediation of potentially harmful contaminants within the ponds. This measure reduces potentially significant impacts associated with the irrigation ponds to a level that is less than significant.

The existence of several contaminated smudge pots observed on the Project Site represents a potentially significant impact (HZ-2). Mitigation measure M-HZ-2 requires the excavation, removal and disposal of soils within the vicinity of the smudge pots. This action will be done in accordance with all applicable government agency permitting and regulations. Implementation of this measure assures the removal of potentially harmful contaminants within the Project Site. This measure reduces potentially significant impacts associated with the smudge pots to a level that is less than significant.

Demolition of existing structures on the Project Site could result in the release of asbestos and/or lead (HZ-3). Mitigation measures M-HZ-3a and M-HZ-3b provides that prior to demotion and/or renovation measures are taken in accordance with all appropriate regulations to assure protection against the release of asbestos and/or lead. These measures reduce potentially significant impacts associated contaminations to a level that is less than significant.

Incorporating mitigation measures M-HZ-1 through M-HZ-3b and design considerations that are listed in Table 1-5 would reduce impacts resulting from the implementation of the Proposed Project to a level that is less than significant.

Image source: Copyright 2007 AirPhotoUSA, LLC, All Rights Reserved (flown April 2007)



Project Boundary

Fire Station

Fire Protection Districts

DEER SPRINGS FPD

NORTH COUNTY FPD

NORTH COUNTY FPD - RAINBOW SUBZONE

VALLEY CENTER FPD

0 Feet 2,500

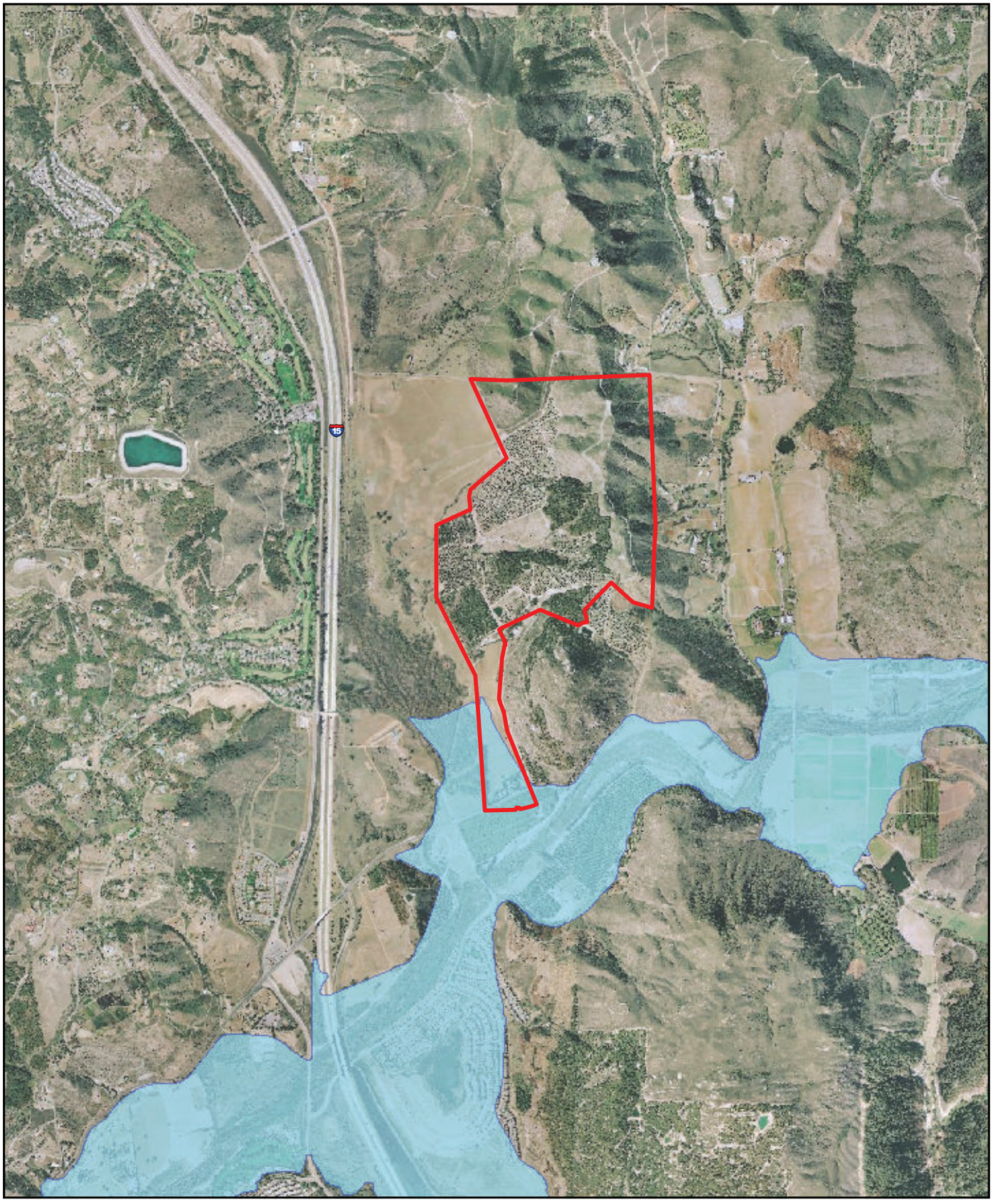
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FIGURE 3.5-1

Fire Protection Districts

Image source: Copyright 2007 AirPhotoUSA, LLC, All Rights Reserved (flown April 2007)



Project Boundary

Dam Inundation Zone

0 Feet 2,500

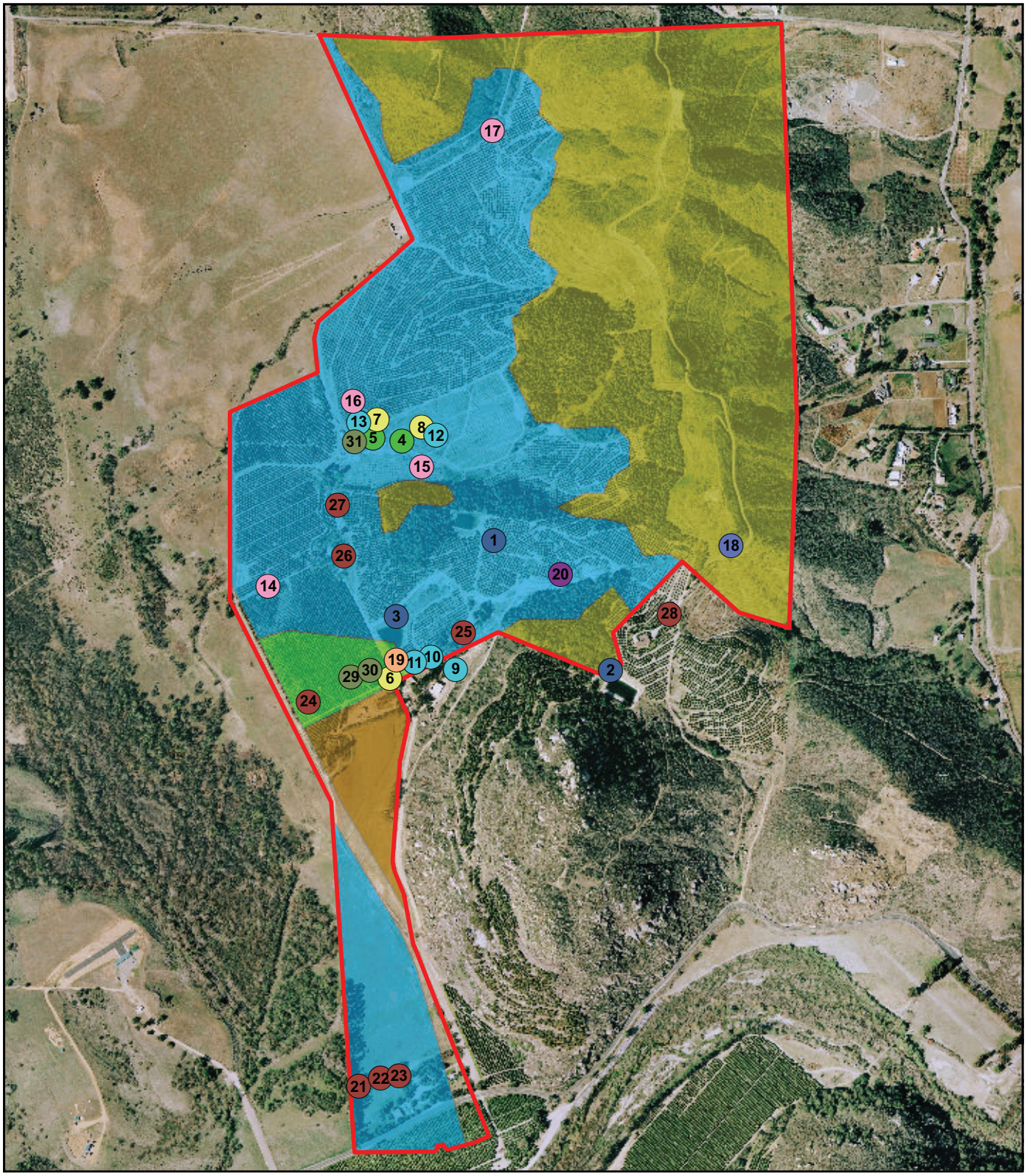
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FIGURE 3.5-2

Dam Inundation Zone

Image source: Copyright 2007 AirPhotoUSA, LLC, All Rights Reserved (flown April 2007)



Project Boundary

Proposed Land Use

- Residential
- School
- Park
- Open Space

- Irrigation Pond 1-3
- Chemical Storage Area 4-5
- Drums 6-8
- Diesel / Gas AST 9-13
- High / Low Heaters 14-17
- Water AST 18
- Debris Pile 19
- Construction Debris 20
- Dwelling (ASB & Lead) 21-28
- Storage Shed 29-31

0 Feet 1,000

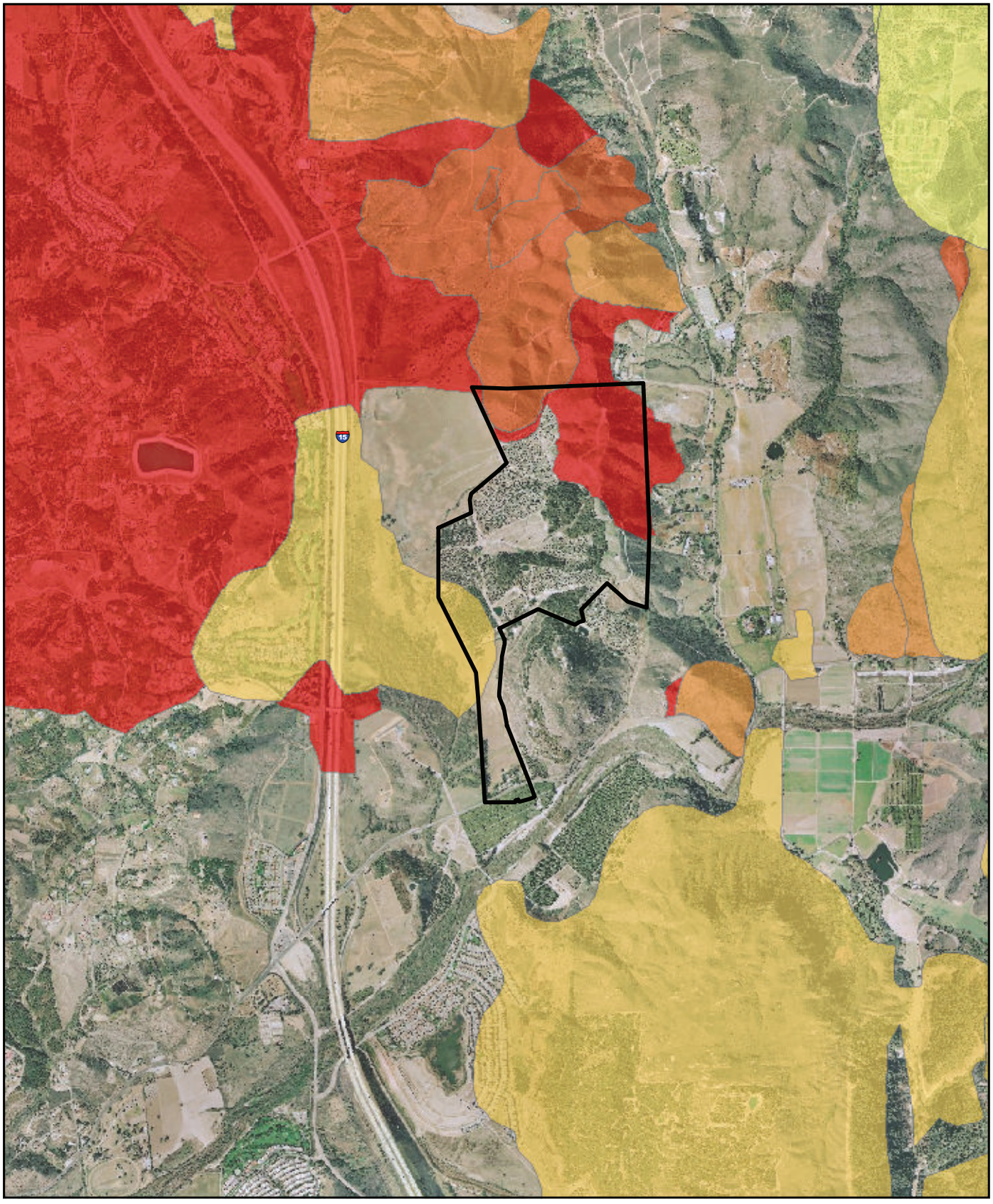
FIGURE 3.5-3

Recognized Environmental Conditions (REC)

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Image source: Copyright 2007 AirPhotoUSA, LLC, All Rights Reserved (flown April 2007)



Project Boundary

Fire History

- 2001 - 2007
- 1991 - 2000
- 1981 - 1990
- 1951 - 1980
- 1878 - 1950

0 Feet 2,500

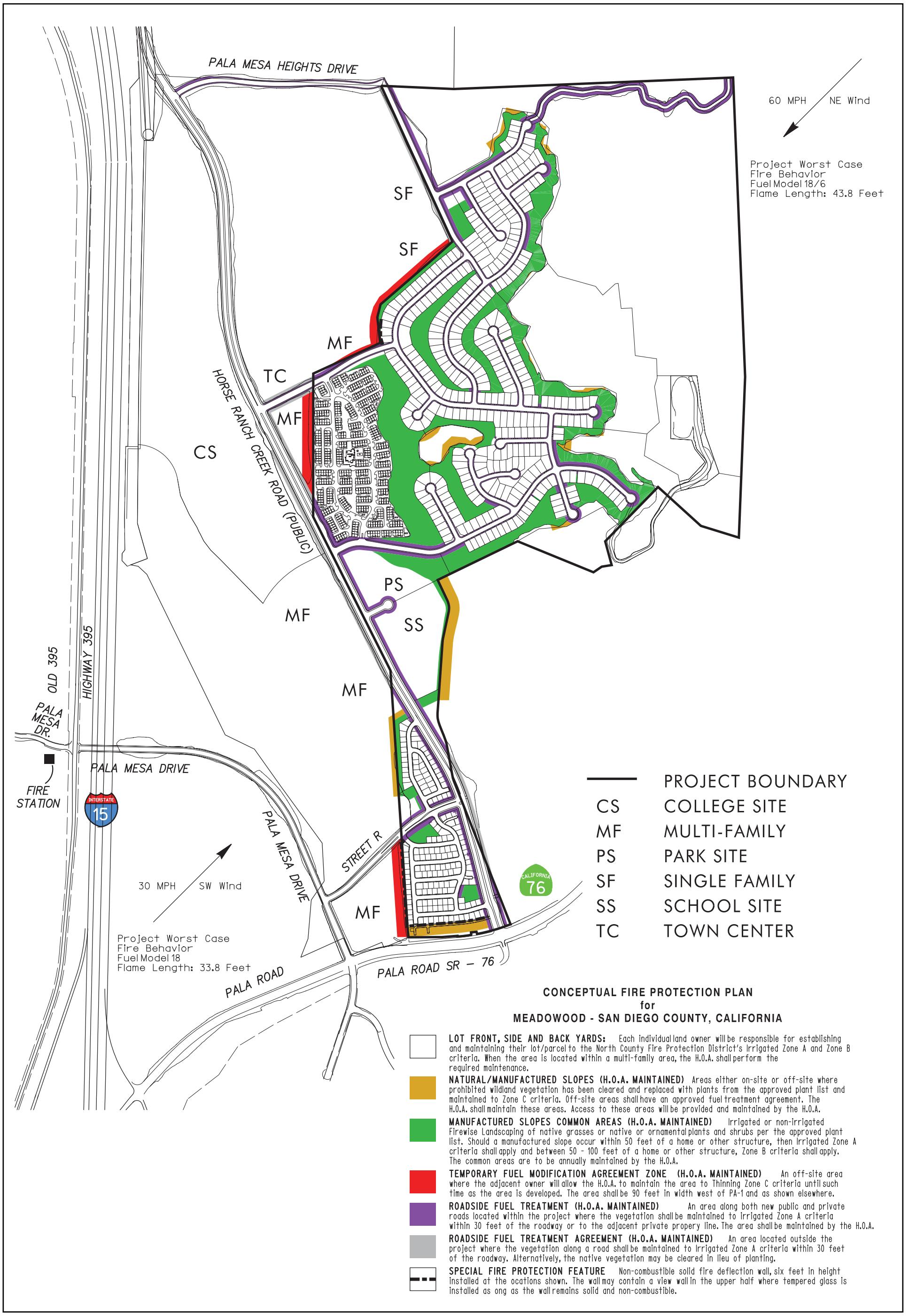
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FIGURE 3.5-4

Historical Wildfire Boundaries

Map Source: Rick Engineering Company, July 2009



CONCEPTUAL FIRE PROTECTION PLAN
for
MEADOWOOD - SAN DIEGO COUNTY, CALIFORNIA

LOT FRONT, SIDE AND BACK YARDS: Each individual land owner will be responsible for establishing and maintaining their lot/parcel to the North County Fire Protection District's Irrigated Zone A and Zone B criteria. When the area is located within a multi-family area, the H.O.A. shall perform the required maintenance.

NATURAL/MANUFACTURED SLOPES (H.O.A. MAINTAINED) Areas either on-site or off-site where prohibited wildland vegetation has been cleared and replaced with plants from the approved plant list and maintained to Zone C criteria. Off-site areas shall have an approved fuel treatment agreement. The H.O.A. shall maintain these areas. Access to these areas will be provided and maintained by the H.O.A.

MANUFACTURED SLOPES COMMON AREAS (H.O.A. MAINTAINED) Irrigated or non-irrigated Firewise Landscaping of native grasses or native or ornamental plants and shrubs per the approved plant list. Should a manufactured slope occur within 50 feet of a home or other structure, then Irrigated Zone A criteria shall apply and between 50 - 100 feet of a home or other structure, Zone B criteria shall apply. The common areas are to be annually maintained by the H.O.A.

TEMPORARY FUEL MODIFICATION AGREEMENT ZONE (H.O.A. MAINTAINED) An off-site area where the adjacent owner will allow the H.O.A. to maintain the area to Thinning Zone C criteria until such time as the area is developed. The area shall be 90 feet in width west of PA-1 and as shown elsewhere.

ROADSIDE FUEL TREATMENT (H.O.A. MAINTAINED) An area along both new public and private roads located within the project where the vegetation shall be maintained to irrigated Zone A criteria within 30 feet of the roadway or to the adjacent private propery line. The area shall be maintained by the H.O.A.

ROADSIDE FUEL TREATMENT AGREEMENT (H.O.A. MAINTAINED) An area located outside the project where the vegetation along a road shall be maintained to Irrigated Zone A criteria within 30 feet of the roadway. Alternatively, the native vegetation may be cleared in lieu of planting.

SPECIAL FIRE PROTECTION FEATURE Non-combustible solid fire deflection wall, six feet in height installed at the ocations shown. The wall may contain a view wall in the upper half where tempered glass is installed as ong as the wall remains solid and non-combustible.

NO SCALE

FIGURE 3.5-5
Fire Protection Plan

RECON

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CHAPTER 4.0 ENVIRONMENTAL EFFECTS FOUND NOT TO BE SIGNIFICANT

This section of the EIR provides discussions of those effects that were identified as potentially significant during the Initial Study or NOP process but were concluded not to be significant after further analysis.

4.1 Land Use and Planning

4.1.1 Existing Conditions

Project Site and Surrounding Land Uses

Currently, approximately 54 percent of the 389.5-acre Project Site is in active agricultural use with citrus and avocado groves. Scattered throughout the Project Site are 13 agriculture-associated sheds and other structures. Annual grasslands and native vegetation surround the agricultural areas, primarily in the northern and eastern portions of the Project Site. Land to the north and east of the Project Site is undeveloped and consists of citrus and avocado orchards, pasture land, and natural open space.

As described in Chapter 1, the Project Site lies within the community of Fallbrook as designated in the San Diego County General Plan. A portion of the Project Site also lies within the I-15 Corridor Subregional Plan and the 92-acre western vertical strip is included in the I-15/SR-76 MSP. The approved Campus Park/Hewlett-Packard Specific Plan occupies 442 acres immediately west of the Project Site, east of I-15, north of SR-76, and is also within the MSP. At this time, the area is undeveloped open space; however, two development proposals are in the active plan review stage. The Project Site does not overlap the Campus Park/Hewlett-Packard Specific Plan.

4.1.2 Existing Land Use Regulations

The County regulations applicable to the use and development of the Proposed Project are briefly described below. An analysis of the Proposed Project's compliance with these regulatory plans and polices is provided in the following Chapter 4.1.3, Analysis of Project Effects.

San Diego County General Plan

The San Diego County General Plan is a broad-based planning document that contains text, maps, and diagrams explaining the County's long-range growth and development goals and policies. The adopted General Plan consists of 12 countywide elements: Open Space, Regional Land Use, Circulation, Recreation, Conservation, Seismic Safety, Scenic Highways, Public Safety, Noise, Housing, Energy, and Public Facility.

The Regional Land Use Element includes eight regional categories. The two regional land use categories of SSA and RDA are designated for the Project Site as shown in Figure 4.1-1. The SSA designation occupies the western 92 acres of the Project Site, and the RDA designation occupies the remaining easterly 297.5 acres.

Proposed San Diego County General Plan Update

The County is currently in the process of preparing the General Plan Update, which is a comprehensive update of the adopted General Plan in order to accommodate reasonable population growth. The General Plan Update is in draft form and has not been adopted by the County. However, on January 10, 2001, the County Board of Supervisors endorsed goals and policies prepared by the Steering Committee for use as a guide during the General Plan Update planning process. Also endorsed during the process are a series of land use alternatives, which include updated land use designations for the Fallbrook CP area, including the Project Site. See Chapter 5, Alternatives, for a discussion of alternatives consistent with the Draft Land Use Map and Referral Map.

Fallbrook Community Plan

The County General Plan provides the basic structure by which the Fallbrook Community Plan is organized. The Fallbrook CP provides more-defined policies and recommendations applicable to development within the community of Fallbrook. The Fallbrook CP was adopted by the County Board of Supervisors in 1974, and amended in 1988. Currently, the Fallbrook CP designates the western 92 acres of the Project Site as (21) Specific Plan Area and the eastern 297.5 acres as (18) Multiple Rural Use (Figure 4.1-2).

I-15 Corridor Subregional Plan and Guidelines

In 1988, the Board of Supervisors adopted a General Plan Amendment to the Fallbrook CP which included the I-15 Corridor Subregional Plan. The defined I-15 corridor extends approximately 20 miles from the Escondido city limits to the Riverside County line, and overlaps the 92-acre western vertical strip of the Project Site. These 92 acres lie within the area designated as (21) Specific Planning Area of the Fallbrook CP (refer to Figure 4.1-2). The corridor contains an approximate two-mile “viewshed” on either side of the freeway in five different community planning areas: North County Metropolitan, Bonsall, Valley Center, Fallbrook, and Rainbow. The text of the plan provides goals and policies for scenic preservation, land use, public services and facilities, circulation, conservation, and coordination and implementation.

I-15/SR-76 Interchange Master Specific Plan

The I-15/SR-76 Interchange MSP is Appendix B of the adopted I-15 Corridor Subregional Plan (discussed above). The MSP Area encompasses approximately 1,178 acres of land located within the four quadrants of the I-15/SR76 interchange. The western 92 acres of the Project Site overlaps a portion of the northeast I-15/SR-76 quadrant, and is the same area designated in the Fallbrook CP as SPA and in the General Plan as regional land use category SSA (refer to Figures 4.1-1 and 4.1-2).

The entire MSP is assigned the zoning designation S90, Holding Area Use Regulation. It was anticipated that the MSP would be implemented by component Specific Plans within the area, each of which must comply with the requirements of the MSP. These requirements include the completion of selected studies to identify the detailed needs of the plan area and the appropriate methods to support those needs. The supporting technical studies include a comprehensive San Luis Rey River plan, a traffic study, a

facilities financing plan, a phasing plan, market analysis, implementation guidelines to conform with the General Plan Conservation Element's Dark Sky Policy, design guidelines (that conform to the I-15 Corridor Scenic Preservation Guidelines), and a park and open space study.

County Zoning Ordinance

The San Diego County Zoning Ordinance provides detailed regulatory provisions for development of all unincorporated lands within the County. County zoning is used to implement the goals and objectives of the adopted General Plan in accordance with State law which requires that the General Plan and corresponding zoning be consistent with one another. The current zone on the westerly 92 acres of the Project Site is S90, Holding Area Use Regulations (minimum lot size of 20 acres) and the current zone on the easterly 297.5 acres of the Project Site is A70, Limited Agriculture (net minimum lot size of 2 acres). Figure 4.1-3 shows the existing zoning for the Project Site.

County Subdivision Ordinance

Pursuant to the State of California's Subdivision Map Act, the County's Subdivision Ordinance regulates the division of property in the County. The ordinance addresses design, standards, and required improvements for approval of proposed subdivisions and tentative maps; and requires minimum lot sizes, setback designators, and lot configurations appropriate to support specific land uses.

Resource Protection Ordinance

The Project Site contains wetlands, sensitive biological habitat, steep slopes, floodplains, and historic and prehistoric resources. The RPO establishes special controls on certain discretionary projects for the protection of environmentally sensitive resources, including wetlands, steep slopes, sensitive biological habitats, floodplains, and prehistoric and historic sites. The RPO allows development on sensitive lands "only when all feasible mitigation measures to protect the habitat are required as a condition of approval and mitigation provides an equal or greater benefit to the affected species. Where the Proposed Project has been modified to the greatest extent possible to preserve sensitive habitat, on-site or off-site mitigation may be allowed." Floodplain issues are discussed in Section 4.2.

Natural Community Conservation Plan

The County participates in the NCCP planning process and is committed to the development of MSCPs. The first MSCP was adopted in 1997 and covers the southwestern portion of the county. The second is underway and will cover the northern portion of the county, including the area of the Project Site. The third will cover the eastern portion of the county. Until an MSCP is adopted, sensitive species and habitat resource documentation, impact assessment, and mitigation fall under the guidelines set forth by San Diego County's RPO, the NCCP guidelines, and CEQA. Mitigation would be required for Proposed Project impacts that are considered significant under these guidelines.

4.1.3 Guidelines for the Determination of Significance

For the purpose of this EIR, the basis for the determination of significance is based on CEQA Guidelines, Appendix G. A significant impact to land use and planning would occur if the project would result in a:

1. Direct conflict with applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (i.e., General Plan; Fallbrook CP, including the I-15 Corridor Subregional Plan with its Scenic Preservation Guidelines and I-15/SR-76 Interchange MSP; Zoning Ordinance; Subdivision Ordinance; RPO; and the NCCP), including how the project will meet any General Plan or other County requirements for parks.

2. Physically divide an established community.

4.1.4 Analysis of Project Effects and Determination as to Significance

Proposed Project Inconsistencies with Land Use Plans, Policies, and Regulations (Guideline 1)

A significant impact would occur if the project would conflict with applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (i.e., General Plan; Fallbrook CP, including the I-15 Corridor Subregional Plan with its Scenic Preservation Guidelines and I-15/SR-76 Interchange MSP; Zoning Ordinance; Subdivision Ordinance; RPO; and the NCCP), including how the project will meet any General Plan or other County requirements for parks.

Appendix K of this EIR (San Diego County General Plan Compliance Report for the Proposed Project), includes a detailed assessment of the Proposed Project's compliance with all elements, goals, and policies of the County General Plan, Fallbrook CP (including the Fallbrook Design Guidelines), the I-15 Corridor Subregional Plan (including the I-15 Corridor Scenic Preservation Guidelines), and the I-15/SR-76 MSP. As outlined below and summarized in Section 1.6 of Chapter 1 of this EIR, the Proposed Project is not consistent with the current land use designations contained in the adopted County General Plan, Fallbrook CP, and I-15 Corridor Subregional Plan, or the current use regulations contained in the County Zoning Ordinance. However, as part of the Proposed Project, the applicant will be processing a GPA and Rezone, which would render the Proposed Project consistent with all applicable land use regulations.

<u>San Diego County General Plan</u>

The Project proposes urban land uses and densities that are not consistent with the existing General Plan Regional Land Use Element regional categories of RDA and SSA for the site, and goals pertaining to preservation of rural lands. As part of the Proposed Project, the General Plan Regional Land Use Map is proposed to be amended to remove the existing RDA and SSA regional categories and to re-designate the entire 389.5-acre site as CUDA, Current Urban Development Area (as shown in Figure 4.1-1). By changing the Regional Land Use category to CUDA, the General Plan goals pertaining to non-urban lands would no longer apply to the Project Site as it would be henceforth considered urban land, upon which urban residential land use types and densities would be appropriately suited.

The proposed change in the SSA and RDA regional land use categories for the Project Site to CUDA is supported by evidence of change or proposed change in surrounding land uses. Two Specific Plans have been approved for land west and adjacent to the Project Site that would entail the eventual development of urban uses. The approved Campus Park/Hewlett-Packard Specific Plan occupies 442 acres immediately west of the Project Site, east of I-15 and is designated CUDA. While this area is currently undeveloped open space, two urban-residential development proposals (Campus Park and Campus Park West) are in the active plan review stage (Figure 1-1). Additionally, a campus for Palomar College has been approved within the Campus Park/Hewlett-Packard Specific Plan area. Adjacent to and including part of the Project Site is also the I-15 Corridor Subregional Plan and I-15/SR-76 MSP. These corridor plans are focused on I-15 interchanges and have identified the I-15/SR-76 area as an area of future development.

Adoption of the proposed General Plan Amendment by the County Board of Supervisors (among other actions, as identified in Chapter 1, Table 1-6), to accomplish the necessary change of County Regional Land Use Element land use designation from RDA/SSA to CUDA would render the Proposed Project consistent with the County General Plan regional land use categories and land use goals. Accordingly, impacts associated with inconsistencies with the General Plan would be **less than significant.** Analysis of development consistent with the General Plan Update Draft Land Use Map Alternative and the General Plan Update Referral Map Alternative is provided in Chapter 5, Alternatives, 5.6 and 5.7.

Fallbrook Community Plan

The Proposed Project proposes residential densities that are not consistent with the existing Fallbrook CP (18) Multiple Rural Use land use designation for the eastern 297.5 acres of the Project Site, and therefore, proposes a GPA to change the Fallbrook CP land use designations to (21) SPA for the entire site (as shown in Figure 4.1-2). By changing the land use designation for the eastern 297.5 acres of the Project Site to SPA, the Proposed Project would conform to the Fallbrook CP, and any potential inconsistencies pertaining to development of rural lands would be de facto resolved.

Areas designated SPA require detailed planning prior to development in order to address environmental constraints or unique land use concerns that require special land use and/or design controls. Once land is designated SPA, no major or minor tentative subdivision maps or reclassifications to more intensive zones shall be approved except in accordance with the adopted SPA, as described in Section 65451 of the California Government Code. The Board of Supervisors may adopt by resolution any goals, objectives, or conditions for a SPA that it deems appropriate. Community or Subregional Plans implement the SPA designation by identifying those areas that must have a SPA adopted prior to further subdivision of any lands designated as (21) SPA. For the sake of continuity throughout the project, the Proposed Project includes all 389.5 acres in a Specific Plan Amendment, not just the 92 acres currently designated SPA.

The Proposed Project is located in an area that, together with two other ownerships, has long been planned for urban development. Past approvals have included a Specific Plan for a large office park and urban residential development. The County currently regards this area as one of future development in the proposed General Plan Update. The

proposed General Plan Update shows land use intensities similar to that being proposed.

Adoption of the proposed General Plan Amendment and Meadowood SPA by the County Board of Supervisors would accomplish the necessary change in the Fallbrook CP land use designation to (21) SPA for the entire Project Site and would render the Proposed Project consistent with the Fallbrook CP land use designations and land use goals. Therefore, impacts associated with inconsistencies with the Fallbrook CP would be **less than significant**.

I-15 Corridor Subregional Plan and Guidelines

A detailed assessment of the consistency of the Proposed Project to the goals, policies and guidelines of the I-15 Corridor Subregional Plan, including its Scenic Preservation Guidelines, is contained in Appendix K. As discussed in the appendix, the Proposed Project is concluded to be consistent with the I-15 Corridor Subregional Plan and Scenic Preservation Guidelines. A detailed discussion and analysis of the Proposed Project's consistency is located in Chapter 2.1.1, Aesthetics, of this DEIR. As such, impacts associated with inconsistencies with the I-15 Corridor Subregional Plan and Guidelines would be **less than significant**.

I-15/SR-76 Interchange Master Specific Plan

An evaluation of the consistency of the Proposed Project to the requirements of the I-15/SR-76 Interchange MSP is provided in Appendix K as well as Appendix 1 to the Meadowood Specific Plan Amendment/GPAR. As discussed in the appendix, and summarized below, the Proposed Project is concluded to be consistent with the MSP, given completion of necessary supporting studies.

The MSP includes suggested targets related to the density (1.73 dwelling units per acre), lot size minimums of 15,000 square feet on land with less than 15 percent slope and residential clustering within the plan area. Additional studies are required in the MSP to identify the detailed needs of the plan area and may indicate a need to modify these targets. The Proposed Project exceeds the current MSP targets. According to the MSP, a final land use plan should not be adopted until additional technical studies are completed. These studies are to be carried out by County staff and/or consultants but funded by the land owners within the MSP. The additional studies include: (1) San Luis Rey River Plan; (2) traffic study; (3) a facilities financing plan; (4) a phasing plan; (5) market analysis; (6) Dark Sky Policy implementation procedures; (7) design guidelines for the I-15 corridor; and (8) a park and open space study.

To establish consistency with the MSP, the County has addressed or the Proposed Project applicant has fulfilled or is proposing to fulfill completion of necessary studies, through the project development process. Appendix K contains an assessment of the status of these reports. Below is a summary of that assessment:

1. The County has completed the San Luis Rey River Park Draft Master Plan which identified no constraints to the Project Site.

2. The County, as part of the General Plan Update process, completed a county-wide traffic study that culminated in a proposed update to the Circulation Element

of the General Plan Update. Concurrently, the Proposed Project applicant has completed its own traffic analysis for the project and surrounding area.

3. The County of San Diego and the State of California (Caltrans) have studied the needed public facilities for the Proposed Project area. The applicant, County, and other organizations are scheduled to complete all required facility improvements, as well as to contribute to financing methods appropriate to public facility construction. Scheduled facilities include I-15/SR-76 interchange improvements, widening of SR-76, and extension of Horse Ranch Creek Road and Pala Mesa Drive. In addition, the County has adopted a Transportation Impact Fee (TIF) program for Fallbrook and the North County Region that identify the facilities and improvements necessary for local and regional roads within the Fallbrook area.

4. A phasing plan has been completed and is included in Chapter 1 of this EIR. This plan addresses phasing of proposed private development with the phasing and financing of public facility improvements.

5. The Applicant is prepared to provide a market analysis for Meadowood, showing the type, size, period, and rate of development that can be expected to occur as justification for the Proposed Project. Both SANDAG and the County have recognized and documented residential land shortages within the County. Through the MSP approved for this area, and the County's General Plan Update, as well as other analyses, the Project Site has been identified as a future smart growth area to respond to the housing shortage and impending population influx. The development area is designated by the County's General Plan Update as Village Residential. The Village category identifies areas where a higher intensity and a wide range of land uses are established or have been planned.

6. In its Dark Sky Policy and Light Pollution Code, the County has codified lighting requirements and measures to ensure protection from the effects of light pollution. The tentative maps for the Proposed Project have been designed to comply with these restrictions, and conformance to the Dark Sky Policy and Light Pollution Code must be determined by the County prior to project approval.

7. The Proposed Project design incorporates the I-15 Corridor Scenic Preservation guidelines. Compliance with the Guidelines will be confirmed by the I-15 Design Review Board prior to project approval.

8. The San Luis Rey River Park Draft Master Plan integrated park, open space, and trails for the San Luis Rey River Corridor at the southern end of the Project Site. The County's Community Trails Master Plan and Trail Defense and Indemnification Ordinance further delineates park and open space requirements. The Proposed Project's conformance to these plans must be demonstrated prior to project approval, and an additional park/open space/trails study specific to the Project Site may be required.

In summary, each of the required studies has been addressed through the processing of the Proposed Project. Through completion of the necessary supporting studies, the Proposed Project conforms to the MSP. Determination of completion of these study requirements by the County Board of Supervisors would render the Proposed Project

consistent with the MSP, and accordingly, associated impacts would be **less than significant**.

County Zoning Ordinance

The Proposed Project proposes residential land uses and densities that are not consistent with existing zoning, which includes S90, Holding Area Use Regulations (minimum lot size of 20 acres) for the western 92 acres of the Project Site and A70, Limited Agriculture (minimum lot size of two acres) for the eastern 297.5 acres of the Project Site. The project proposes the construction of a maximum of 886 single-family detached, multi-family attached, and multi-family detached dwelling units at an overall density of 2.3 dwelling units per acre. Uses associated with residential development are also proposed, including school and park sites and wastewater facilities.

As part of the Proposed Project, the applicant will be processing a Rezone to rezone the entire 389.5-acre site to S88, Specific Plan Area, to allow for a maximum of 886 single-family and multi-family dwelling units. Adoption of the proposed Rezone by the County Board of Supervisors (as identified in Table 1-6 of Chapter 1 of this EIR) would render the Proposed Project consistent with the County Zoning Ordinance use regulations. Accordingly, impacts associated with inconsistencies with zoning regulations would be **less than significant**.

Section 4230 of the San Diego County Zoning Ordinance indicates that the purpose of lot area averaging is to allow flexibility in lot size, taking topography into account so as to minimize grading and preserve steep natural slopes and environmental resources. The intent is that the lots shall relate to the topography, neighborhood character, environmental quality, and natural resources, with larger lots or open space to be located in steep areas or in other environmentally constrained areas. The Proposed Project conforms to Section 4230, Lot Area Averaging.

County Subdivision Ordinance

The Proposed Project complies with lot size and layout requirements of the County of San Diego Subdivision Ordinance, and is, therefore, consistent with the Subdivision Ordinance. As such, associated impacts would be **less than significant**.

Resource Protection Ordinance

The Proposed Project does not include any alteration to the San Luis Rey River floodway and has been designed to the greatest extent possible to preserve steep slopes, sensitive habitat and cultural resources, and is consistent with the RPO.

A steep slope analysis prepared for the Proposed Project identified the various slope categories on the Project Site and was used extensively to determine suitable development locations by minimizing development encroachment into the steep slopes and preserving significant slopes. The Proposed Project will preserve 164.1 acres of the 180.3 acres (91 percent) of on-site RPO steep slopes. The minimal areas of encroachment are within the allowances identified in RPO.

The Proposed Project development design also took into consideration locations of sensitive habitat and cultural resources, and the resulting project design avoids sensitive

habitat and preserves 122.4 acres of sensitive habitat in open space. Additional information regarding RPO compliance is contained in the Cultural Resources, Biological Resources, Hydrology, and Parks and Recreation sections of this EIR. As such, impacts associated with inconsistencies with the RPO would be **less than significant**.

Natural Community Conservation Plan

The Proposed Project's open space system is consistent with the goals and objectives of the NCCP, qualifying the Specific Plan Amendment for permitting authority under 4 (d) rule under the NCCP. No direct impacts to habitat occupied by the coastal California gnatcatcher will occur. Indirect impacts to the coastal California gnatcatcher and arroyo toad will be minimized through various construction practices as outlined in Section 3.1 of this EIR and Mitigation and Monitoring Program. The Proposed Project contributes to regional connectivity, does not appreciably reduce the likelihood of survival of MSCP covered species, and minimizes loss of natural habitat. Therefore, the proposed project is consistent with the NCCP and Habitat Loss Permit requirements, and associated impacts would be **less than significant**.

Community Division (Guideline 2)

A significant impact would occur if the project would physically divide an established community.

The existing community of Fallbrook is located west of the Proposed Project and is physically separated from the Project Site by I-15. Because there is not an established community within the project area that would be subject to division, **no impact** would occur.

4.1.5 Cumulative Impact Analysis

Projects that were included in the assessment of cumulative impacts are listed in Table 1-7 and shown on Figure 1-19. This area of the Fallbrook community is characterized by predominantly low-density residential development and agricultural uses. Several other cumulative projects in the Fallbrook CP area propose residential and related development by conversion of agricultural uses into residential use to accommodate the housing needs of the region. The conversion from an agricultural use to residential and related uses was anticipated by the community plan. Projects that require community plan amendments and that conflict with the policies in the plan would have the potential to represent a cumulative land use impact. Specifically, the Proposed Project along with the Campus Park and Campus Park West projects in the northeast quadrant of I-15/SR-76 corridor all require community plan amendments. As noted previously, this quadrant is addressed as part of the General Plan Update, which currently shows increased residential densities beyond that shown in the adopted community plan. While the specific densities and land use designations will be determined through the Draft General Plan Update process, the Proposed Project combined with the other cumulative projects would accommodate the envisioned goals and policies of the update and not represent a cumulatively significant land use impact. Conformance to the community plan demonstrates that a project meets the land use objectives for the growth and development of the community. It is also the goal of the County of San Diego to accommodate growth in a manner that will complement the environment of Fallbrook.

The planned residential densities are compatible with the existing densities in the existing Lake Rancho Viejo project located just south of SR-76, and with the land uses proposed in the adjacent Campus Park and Campus Park West projects. The latter propose a variety of residential densities and housing types, along with compatible commercial, community, and public uses. The Proposed Project's higher densities are clustered in the flatter, western portions of the property, adjacent to the more urban uses in Campus Park and Campus Park West. Natural open space and agricultural uses are located on the northern and eastern portions of the property to ensure compatibility with the existing scattered homes and citrus and avocado groves.

The Proposed Project would not significantly disrupt or divide the established community because the physical arrangement of established development is consistent with surrounding uses and character. The Proposed Project would be consistent with the County of San Diego RPO and the NCCP. Since other projects in the vicinity also conform to the RPO and the NCCP, cumulative impacts would be **less than significant**.

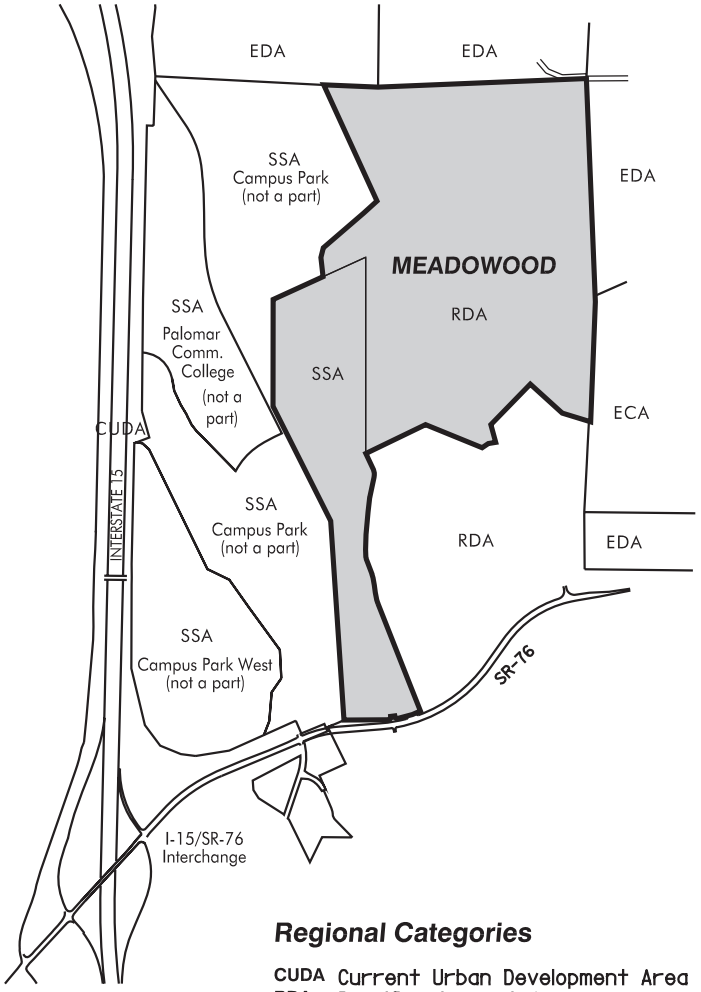
4.1.6 Conclusion

Adoption of the proposed amendments and rezone by the County Board of Supervisors would render the Proposed Project consistent with all applicable land use plans, policies, and regulations. The Proposed Project's consistency with the General Plan goals and policies and Fallbrook CP additionally affirms its consistency with the long-term vision of applicable plans and ordinances. Potential impacts associated with plan inconsistencies would therefore be less than significant.

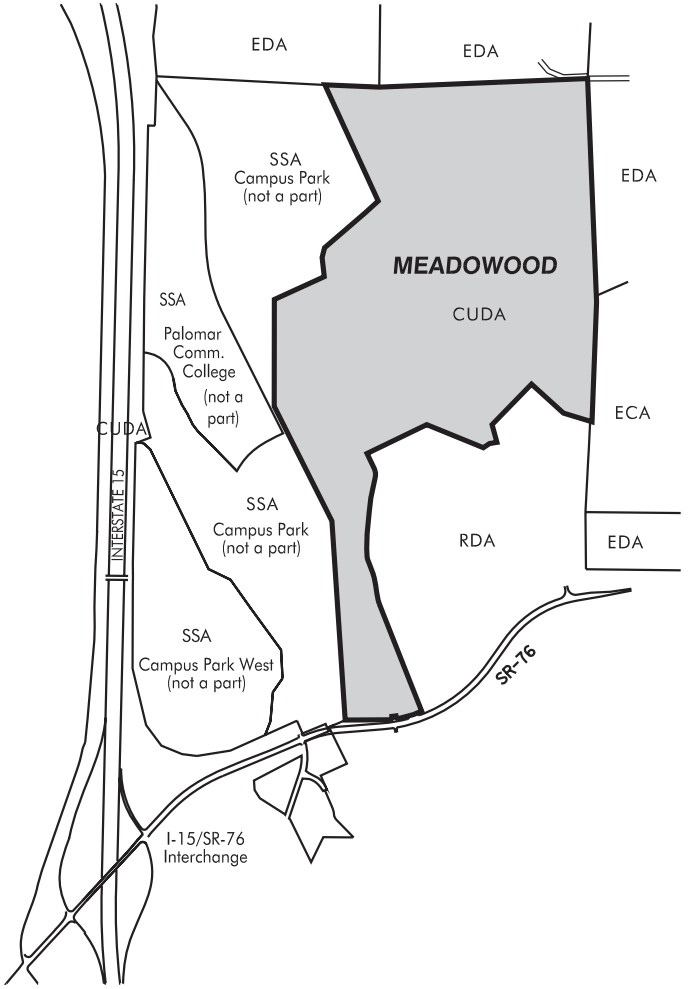
The Proposed Project entails development of a maximum of 886 single-family and multi-family dwellings where four houses currently exist. No residents would be displaced during the construction phase of the Proposed Project. Additionally, there is no established community within the Proposed Project area that would be subject to division. Therefore, no impacts would occur.

Map Source: Rick Engineering Company, May 2009

EXISTING REGIONAL CATEGORY



PROPOSED REGIONAL CATEGORY



Regional Categories

CUDA	Current Urban Development Area
RDA	Rural Development Area
EDA	Estate Development Area
ECA	Environmentally Constrained Areas
SSA	Special Study Areas

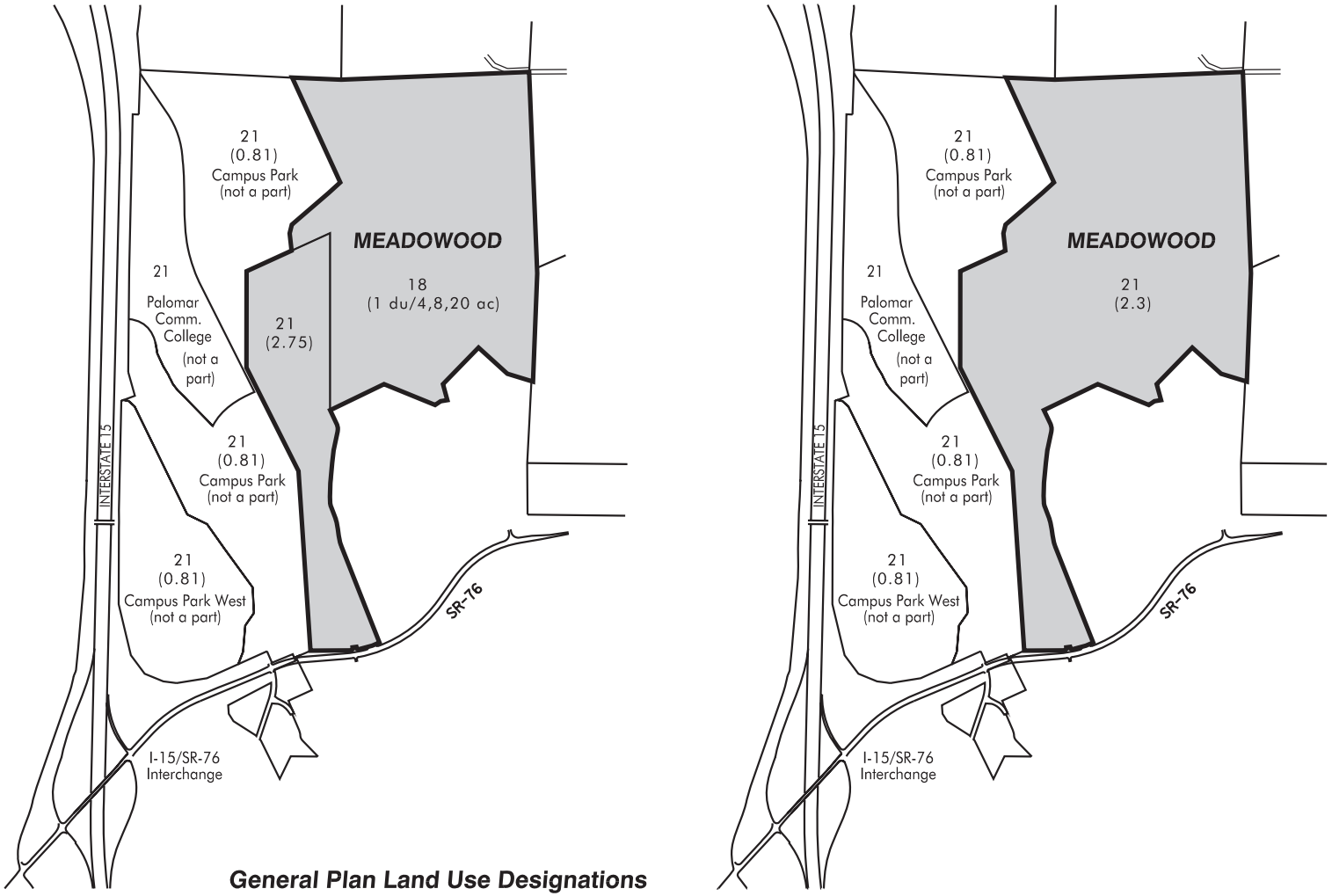
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FIGURE 4.1-1
Existing and Proposed Regional Category

Map Source: Rick Engineering Company, 2009



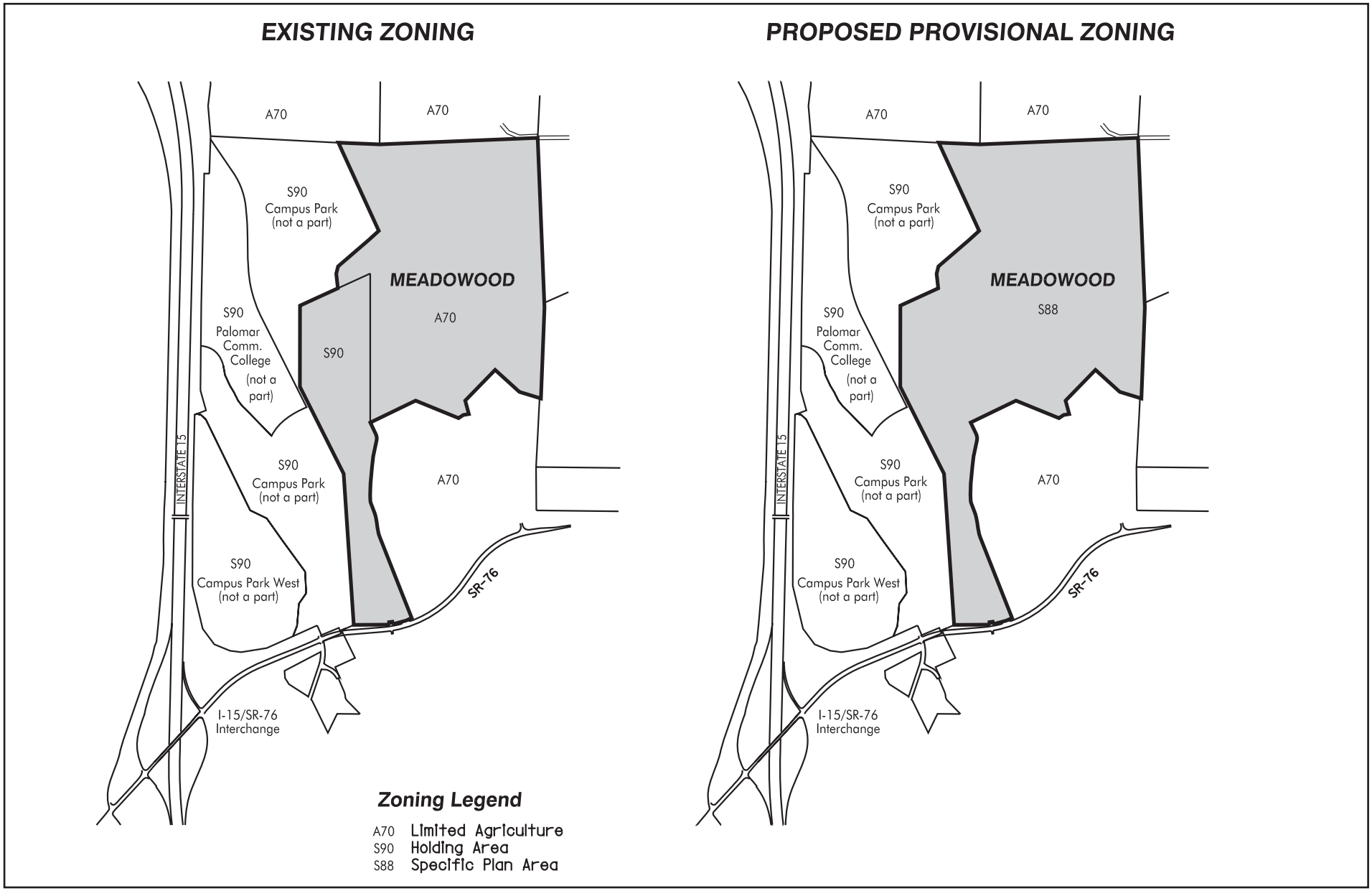
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FIGURE 4.1-2
Existing and Proposed Land Use Desingnations

Map Source: Rick Engineering Company, May 2009



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FIGURE 4.1-3
Existing and Proposed Zoning

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4.2 Hydrology and Water Quality

A Storm Water Management Plan (SWMP), Drainage Study and Hydromodification Management Study (HMS) were prepared in April 2009 for the Proposed Project. These studies, along with other applicable information, are summarized below. The studies in their entirety are included as Appendices L-1, L-2, and L-3 of this EIR respectively.

4.2.1 Existing Regulations

Federal Water Pollution Control Act (Clean Water Act, CWA)

The Clean Water Act (CWA), enacted in 1972, is intended to restore and maintain the integrity of the nation's water through a system of water quality standards, discharge limitations, and permits. The fundamental purpose of the CWA is the protection of designated beneficial uses of water resources. The amendment of the CWA in 1987 includes a provision prohibiting discharges of pollutants contained in stormwater runoff and requires many cities to obtain a National Pollutant Discharge Elimination System (NPDES) permit to control urban and stormwater runoff.

Federal Emergency Management Agency (FEMA)

FEMA is the primary agency in charge of administering programs and coordinating with communities to establish effective flood plain management standards. FEMA is responsible for delineating areas of flood hazards. It is then the responsibility of State and local agencies to implement the means of carrying out FEMA requirements.

Porter-Cologne Water Quality Control Act

This Act, which is a portion of the State Water Code, establishes responsibilities and authorities of the State's Regional Water Quality Control Boards (RWQCB). Each RWQCB is directed to adopt water quality control plans for the waters of an area to include identification of beneficial uses, objectives to protect those uses, and an implementation plan to accomplish the objectives.

County of San Diego Watershed Protection, Storm Water Management, and Discharge Control Ordinance (WPO)

The WPO contains discharge prohibitions, and requirements that vary depending on type of land use activity proposed and location within the County. The intent of the WPO is to protect water resources and improve water quality through the uses of management practices aimed at reducing polluted runoff.

County of San Diego, Groundwater Ordinance (GO)

The Proposed Project is not subject to regulation under the GO. The GO applies to projects that propose the use of groundwater not provided by a Water Service Agency. The Proposed Project water use will be managed by a MWD.

4.2.2 Existing Conditions

Local Surface and Water Quality

There is an existing ridgeline within the Project Site which separates the site into two watersheds. The portion located east of the ridgeline is within the San Diego Region watershed, of the San Luis Rey Hydrologic Unit, of the Monserate Hydrologic Area, of the Pala Hydrologic Subarea (903.21). Approximately 71 acres of the Project Site are within Hydrologic Unit 903.21. This area is to remain undisturbed, thus preserving all existing drainage patterns. The portion of the Project Site west of the ridgeline, is located within the San Diego Region watershed, of the San Luis Rey Hydrologic Unit, of the Lower San Luis Rey Hydrologic Area, of the Bonsall Hydrologic Subarea (903.12). Since Proposed Project development would occur within this watershed, Unit 903.12 is the focus of the following discussion and analysis.

Currently, runoff from the Project Site drains westerly into Horse Ranch Creek. Horse Ranch Creek confluences with the San Luis Rey River which ultimately outfalls into the Pacific Ocean. According to the 2006 CWA 303(d) List of Water Quality Limited Segments Requiring TMDLS, the lower 13 miles of the San Luis Rey River is impaired for chloride and Total Dissolved Solids (TDS). Chloride and TDS levels usually occur from urban run-off/storm sewers being introduced into water systems. The Pacific Ocean shoreline at the San Luis Rey River is impaired for bacteria, which usually occurs from animal wastes.

Beneficial uses for inland surface water within Hydrologic Unit 903.12 include Agricultural Supply (AGR), Industrial Services Supply (IND), Contact Recreation (REC1), Non-Contact Recreation (REC2**),** Preservation of Biological Habitats of Special Significance (BIOL), Warm Freshwater Habitat (WARM), Wildlife Habitat (WILD) and Rare, Threatened, or Endangered Species (RARE)**.** Groundwater beneficial uses at the Project Site include Municipal and Domestic Supply (MUN), AGR, and IND.

Groundwater

The Project Site has existing avocado and citrus groves that have been in operation since the 1980s. Existing on-site agricultural groundwater use is estimated to be approximately 618 af/yr.

Flooding

There are two floodplains adjacent to the Project Site. The Horse Ranch Creek floodplain is located to the west of the Project Site and the San Luis Rey River floodplain is located south of the Project Site. Horse Ranch Creek is not a FEMA defined floodplain; no floodplain and/or floodway have been defined on a Flood Insurance Rate Map (FIRM). San Luis Rey River is a FEMA defined floodplain. The 100-year water floodplain limits are delineated on a FIRM.

The southwestern portion of the Project Site (PA-1) is located within the fringe of the existing 100-year Horse Ranch Creek. As stated above, this floodplain is not defined by FEMA; however, a floodplain analysis has been prepared and is located in Appendix O of this EIR. The southern portion of PA 1 is adjacent to San Luis Rey River. Associated with the re-alignment of SR-76, a Conditional Letter of Map Revision (CLOMR) was submitted to the County and the FEMA. The CLOMR was approved and issued on November 22, 2005 (Case Number 05-09-1045R). Based on the SR-76 re-alignment (now under construction) and the hydraulic analysis, the CLOMR proposes that the northern limit of the San Luis Rey floodplain will be revised to be re-located immediately south of the new SR-76 alignment. As a result, the southern portion of the Project Site is not within the San Luis Rey floodplain. Upon completion of the SR-76 realignment, Caltrans will submit a Letter of Map Revision (LOMR) and formally update the floodplain and the FIRM for this portion of the San Luis Rey River.

Runoff and Drainage

As stated above, a ridgeline exists which splits existing runoff to the east and west. The portion of the Project Site proposed for development is entirely within the western watershed. Runoff is conveyed westerly towards Horse Ranch Creek, which conveys runoff from about 7,300 acres tributary in a southerly direction and crosses SR-76 and southerly to confluence with the San Luis Rey River. The San Luis Rey River flows westerly, confluencing with Keys Creek from the southeast and then downstream under I-15 and ultimately outlets into the Pacific Ocean.

4.2.3 Guidelines for the Determination of Significance

For the purpose of this EIR, the basis for the determination of significance is based on the County's Guidelines for the Determination of Significance, Hydrology, approved July 30, 2007 and Surface Water Quality, approved July 30, 2007.

A significant hydrology/water quality impact would occur if the project would:

1. Not conform to applicable Federal, State, or local "Clean Water" statutes or regulations, including, but not limited to, the CWA, the Porter-Cologne Water Quality Act, or County of San Diego WPO.

2. Drain to a tributary of an impaired water body listed on the CWA Section 303(d) list, and will contribute substantial additional pollutant(s) for which the receiving water body is already impaired.

3. Contribute pollution in excess of that allowed by applicable State or local water quality objectives or will cause or contribute to the degradation of beneficial uses.

4. Result in placing housing, habitable structures, or unanchored impediments to flow in a 100-year floodplain area, or other special flood hazard area, as shown on a FIRM, a County Flood Plain Map or County Alluvial Fan Map, which would subsequently endanger health, safety and property due to flooding.

   OR

The project will place structures within a 100-year flood hazard or alter the floodway in a manner that would redirect or impede flow resulting in any of the following:

a. Alter the Lines of Inundation resulting in the placement of other housing in a 100 year flood hazard;

OR

b. Increase water surface elevation in a watercourse with a watershed equal to or greater than one square mile by one foot or more in height and in the case of the San Luis Rey River, San Dieguito River, San Diego River, Sweetwater River or Otay River 2/10 of a foot in height.

5. Substantially alter existing drainage patterns in a matter which would result in substantial erosion or siltation on- or off-site.

6. Result in increased velocities and peak flow rates exiting the Project Site that would cause flooding downstream or exceed the stormwater drainage system capacity serving the Project Site.

7. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.

4.2.4 Analysis of Project Effects and Determination as to Significance

Local Surface and Ground Water Quality (Guidelines 1, 2, and 3)

A significant impact would occur if the project did not conform to applicable statutes or regulations resulting in the contribution of substantial additional pollutants to an impaired water body listed on CWA Section 303(d) list or result in the degradation of beneficial uses.

Potential water quality impacts are associated with both short-term construction activities and long-term residential use. As stated above, a project specific SWMP has been prepared to address these issues including detailed design, operation and maintenance discussions for short and long-term water quality concerns.

Construction Activities: Proposed Project grading, excavation, and construction activities would increase the potential for erosion and sedimentation both within and downstream of the Project Site. Downstream water quality and associated wildlife habitat could be impacted through the introduction of additional contaminants. Additionally, on-site use and storage of construction related hazardous materials could accidentally discharge resulting in significant impacts to surface water quality if such materials reach downstream receiving waters. The SWMP provides a preliminary list of BMPs which could be included as project design features, the implementation of which would result in the avoidance of accidental discharges and reduce erosion potential and sedimentation.

It is noted that no site specific BMPs for construction activities are identified in the SWMP. A site specified Storm Water Pollution Prevention Plan (SWPPP) will be developed prior to construction pursuant to the NPDES General Permit and applicable

County requirements. The SWPPP will identify detailed measures to prevent and control the off-site discharge of contaminants in storm water runoff. These specific pollution control measure will be incorporated into the Proposed Project.

While project specific measures vary with individual site conditions, a summary of typical temporary BMPs that may be used during construction include: street sweeping, waste disposal, vehicle and equipment maintenance, concrete washout area, materials storage, minimization of hazardous materials and proper handling and storage of hazardous materials. Typical erosion and sediment control measures include: silt fences, fiber rolls, gravel bags, temporary desilting basins, velocity check dams, temporary ditches or swales, storm water inlet protection, and soil stabilization measures. Implementation of these measures, or others as determined appropriate in the Proposed Project SWPPP, as design features would reduce potential impacts from construction related activities to the beneficial uses or water quality of receiving waters to be **less than significant**.

Residential Use: Potential long-term water quality impacts associated with the use of the site as a residential community include the generation and discharge of urban contaminants. These contaminants include sediment, trash and debris, nutrients, heavy metals, organic compounds, oxygen demanding substances, oil and grease, bacteria and viruses and pesticides. The SWMP includes Site Design BMPs, Low Impact Development (LID) requirements, Source Control BMPs and Treatment Control BMPs which have been incorporated into the Proposed Project as project design features, the implementation of which would result in the avoidance or reduction of potential long-term water quality impacts.

Site Design BMPs are those BMPS that the Proposed Project will include as an inherent characteristic of the project's design. As detailed in the SWMP, the Proposed Project is designed to minimize impervious surfaces and conserve natural areas where feasible. Additionally, the Proposed Project includes where feasible the following: runoff from developed areas drain into adjacent landscaping; minimizing cut and fill areas to reduce slope lengths, landscaping the slopes, incorporating retaining walls to reduce steepness or shorten slopes, provide benching or terraces on high cut and fill slopes to reduce concentration of flows, rounding and shaping slopes, and collecting concentrated flows in stabilized drains and channels.

Utilizing LID is a requirement of the WPO. LID is an approach to land development that works with nature to manage stormwater as close to its source as possible. Significant LID measures have been incorporated into the Proposed Project's design as detailed in the SWMP: preserving significant trees; restricting heavy construction equipment access to planned green/open space areas; clustering lot design; curb-cut to landscaping; rural swales; permeable pavements within southern planning areas; downspout swales and utilizing smart irrigation systems and smart trees.

Source Control BMPs are intended to avoid or minimize the introduction of pollutants into the storm drain and natural drainage systems by reducing the potential generation of the pollutant at the point of origin. The SWMP details the Proposed Project's inclusion of the following BMPs as project design measures: storm drain stencils prohibiting dumping, use of efficient irrigation systems including rain shut-off devices, designing systems to meet each landscaped areas specific needs, using flow reducers or shut off valves.

Treatment Control BMPs infiltrate, treat or filter runoff from developed areas. The Proposed Project is divided into nine drainage basins as shown in Figure 4.2-1. In addition to the Site Design, Source Control and LID BMPs described above, the Proposed Project includes seven detention basins and two high rate media filters as the treatment control BMPs. A "settling basin" is a treatment control BMP that collects water allowing it to naturally filter. The high rate media filters are a propriety product that is manufactured by BioClean Environmental Inc. The high rate media filters are a BioClean Inlet Insert with a Biomedia Green Filter. Details of the Site Design, Source Control, and Treatment Control BMPs, in addition to the LID measures, for each drainage basin are included in the SWMP.

The detention facilities have three functions that consist of detaining the 100-year storm to pre-project levels, water quality treatment, and hydromodification management. To be consistent with the County's manuals and water quality language, the detention facilities are identified as "detention basins" in the drainage report, "ponds" in the HMS, and "settling basins" in the SWMP. It is important to note that while the three reports have different terminology for the detention facilities (per the County manuals), all of the detention facilities, with the exception of the underground vault in the most southern drainage basins, incorporate detention for the 100-year storm event, hydromodification management, and water quality treatment. The underground vault, located in the most southerly drainage basin only incorporates hydromodification management. For the purposes of this section (Local Surface and Water Quality Section), the detention facilities are identified as settling basins.

As stated earlier, the Proposed Project ultimately discharges into the lower 13 miles of the San Luis Rey River, which is an impaired water body. However, implementation of the above described measures, as design features, would reduce potential long-term impacts of the Proposed Project to the beneficial uses or water quality of receiving waters to **less than significant**.

Flooding (Guideline 4)

A significant impact would occur if the project would result in placing housing, habitable structures, or unanchored impediments to flow in a 100-year floodplain area, or other special flood hazard area, as shown on a FIRM, a County Flood Plain Map or County Alluvial Fan Map, which would subsequently endanger health, safety and property due to flooding; or will place structures within a 100-year flood hazard or alter the floodway in a manner that would redirect or impede flow resulting in any of the following:

> a. Alter the Lines of Inundation resulting in the placement of other housing in a 100 year flood hazard; or
>
> b. Increase water surface elevation in a watercourse with a watershed equal to or greater than one square mile by one foot or more in height and in the case of the San Luis Rey River, San Dieguito River, San Diego River, Sweetwater River or Otay River 2/10 of a foot in height.

As discussed above, the Horse Ranch Creek floodplain and floodway is not currently defined by FEMA. Pre- and post-project 100-year floodplain analyses have been performed for the portion of Horse Ranch Creek adjacent to the Proposed Project. As a result, it has been determined that portions of PA1 and Street R are located within the

Horse Ranch Creek floodplain. Both PA1 and Street R are located in the portion of the creek that is not in the affected area of conveyance. In addition, improvements will be designed along Street R so that flow is not impeded but rather allow flow to be conveyed downstream and as such not result in adverse impact to the floodplain. The 100-year floodplain analyses show that the Proposed Project would not adversely impact the hydraulic characteristics of the creek with respect to water surface elevations and velocities. Implementation of the improvements associated with Street R and the grading of PA1 will assure that floodplain related impacts associated with the Proposed Project will be **less than significant**.

As mentioned previously, the San Luis Rey 100-year floodplain has been revised based on the recent improvements to SR-76. As a result, the limits of the floodplain have been realigned to the southern side of SR-76 and no longer impact or will be impacted by the Proposed Project.

Runoff and Drainage (Guidelines 5 & 6)

A significant impact would occur if the project would substantially alter existing drainage patterns in a matter which would result in substantial erosion or siltation on- or off-site or result in increased velocities and peak flow rates exiting the Project Site that would cause flooding downstream or exceed the stormwater drainage system capacity serving the Project Site.

Topographic conditions of the Project Site include steep slopes within the eastern portion of the Project Site generally becoming more moderate from east to west. Existing drainage naturally flows in a westerly direction. In the pre-project condition, the Project Site consists of 389.5 acres of undeveloped land. In the post-project condition, the Project Site would consist of 217.8 acres of development and result in an increase in the area of impervious surfaces. Pre, post undetained, and post detained peak 100-year flow rates for each drainage basin are shown in Table 4.2-1.

TABLE 4.2-1
SUMMARY OF PRE- AND POST-PROJECT HYDROLOGIC ANALYSES

Drainage Basin		100-Year Flow Rate (cubic feet per second)			100-Year Detention Volume (ac-ft)	Drainage Area (acres)	
Pre	Post	Pre	Post (Undetained)	Post (Detained)	Post	Pre	Post
100	1000	20.0	17.8	n/a	n/a	11.2	9.6
200	2000	85.4	108.1	82.0	1.2	62.1	59.5
300	3000	79.1	135.6	79.1	4.00	58.5	61.6
400	4000	16.9	39.3	16.9	1.20	11.1	11.2
700A	7000	257.3	507.1	257.0	16.68	191.3	190.6
700B	7000B	76.2	98.5	74.8	4.00	43.8	45.3
800	8000A	84.8	99.3	84.5	1.89	50.7	26.8
	8000B		80.3		2.81		26.1
900	9000	45.3	45.6	n/a	n/a	21.4	18.3

The Proposed Project has been divided into nine major drainage basins and incorporates two concepts with respect to detention and mimicking pre-project characteristics. First, the Proposed Project would attenuate the post-project flow rates to

pre-project levels for the 100-year storm event, where appropriate (seven locations). Second the Proposed Project would mimic pre-project peak flows and durations for the storms equal to 20 percent of the 5-year storm through the 10-year storm (0.2Q5 – Q10), where appropriate (eight locations). The 100-year detention is proposed, so that the watershed or downstream facilities are not adversely impacted as a result of the Proposed Project. By incorporating 100-year detention, the Proposed Project mimics pre-project flowrates and velocities within Horse Ranch Creek. The Proposed Project also manages peak flow rates and durations in accordance with the Interim Hydromodification Criteria to manage increases in runoff and velocities resulting in erosion or siltation. As a result of these two detention components, the Proposed Project would not increase runoff velocities resulting in erosion or siltation on or off-site. The post-project runoff will be detained to pre-project levels, where required, prior to leaving the Project Site due to the inclusion of seven detention basins and one underground vault.

There are nine proposed major drainage basins and as such there are nine proposed locations along the western boundary where runoff would exit the Project Site. Two drainage basins would not exceed pre-project levels during a 100-year storm event. Detention facilities are proposed in the remainder of the drainage basins. As a result, in the post-project condition, all of the nine locations along the western boundary of the Project Site would release runoff to at or below 100-year pre-project levels. Details regarding the size of the seven detention basin/pond/settling basin and the underground vault (hydromodification management pond) are included in the drainage study, HMS, and SWMP (Appendices M-1, M-2, and M-3).

The underground vault, located in the most southerly drainage basin, only includes volume for hydromodification management. No detention component is necessary, because post-project flow rates do not exceed pre-project flow rates for the 100-year storm. Therefore, in addition to the underground vault, the Proposed Project also incorporates hdyromodification management into the seven detention basins. The seven detention basins, located throughout the project site, in addition to attenuating the 100-year post-project storm to pre-project levels, also incorporate hydromodification management and water quality functions. To be consistent with the language in the local plans, manuals, and ordinances, the drainage study refers to the detention facilities as “detention basins”, the HMS refers to the detention facilities as “ponds”, and the SWMP refers to the detention facilities as “settling basins”.

Due to the implementation of the detention facilities on-site, the Proposed Project would not result in substantial erosion or siltation on or off-site. The detention facilities and the energy dissipaters (where required) would also manage the velocities exiting the Proposed Project. In addition, the hydromodification management component that is associated with the detention facilities (ponds) would reduce the effect of the Proposed Project’s changes to runoff characteristics which could lead to increased erosion and sediment transport off site. Specifically, the Proposed Project would apply the following measures: noncontiguous sidewalks, roof drains not connected to the storm drain system, ponds/detention facilities (discussed above), and porous driveways. Implementation of these measures will assure that potential impacts associated with changes in drainage patterns and increased runoff velocities resulting in substantial erosions and sedimentation would be **less than significant**.

Development of the Proposed Project would require the installation of public and private storm drain facilities to capture and convey off-site and on-site runoff to the westerly

boundary of the Project Site. The Project's outfalls have been proposed in locations that are consistent with the pre-project discharge locations. If the adjacent project (Campus Park TM 5338) is constructed before or concurrent with the Proposed Project, there will be several storm drain systems that will be connected to these downstream off-site storm drain systems. If the adjacent construction occurs, energy dissipaters will not be required at these locations. However, if the Proposed Project develops before the adjacent development, runoff will be discharged along the western boundary to existing swales and channels that discharge into Horse Ranch Creek. Appropriate erosion control measures will be utilized at all discharge points that convey flow overland to Horse Ranch Creek. Implementation of these design measures would reduce run-off volumes and velocities. Therefore, impacts associated with exceeding the existing or planned stormwater facilities will be **less than significant.**

Groundwater Levels (Guidelines 7)

A significant impact would occur if the project would substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.

The Proposed Project will obtain its potable water from a MWD. According to the Water Study, the Proposed Project will require approximately 328.8 af/yr of non-potable water for outdoor irrigation at the school, park, HOA areas, right-of-ways and retained groves. Non-potable water for the Proposed Project will be primarily obtained from recycled water deliveries from an on-site WWTP, which is estimated to provide approximately 188.6 af/yr towards this demand. The additional demand of approximately 140.2 af/yr will be supplied by on-site groundwater wells.

As stated above, the existing on-site groundwater demand is approximately 618 af/yr. The proposed demand of approximately 140.2 af/yr would result in a reduction of approximately 77 percent of groundwater use when compared to existing conditions. Therefore, impacts to groundwater resources are considered **less than significant**.

4.2.5 Cumulative Impact Analysis

As discussed above, the incorporation of the detention facilities (detention basins) will mimic pre-project 100-year characteristics with respect to runoff volumes and velocities. The project is mimicking pre-project characteristics at each of the nine outfalls along the western boundary and as a result not impacting the local drainage patterns. In addition the detention facilities (ponds) and the upstream hydromodification management measures (non-contiguous sidewalks, pervious driveways, roof drains not directly connected to the storm drain, etc.) would mimic pre-project characteristics for 0.2Q5–Q10 with respect to peak flow rates and durations. The water quality measures that include detention facilities (settling basins), high rate media filters, site design BMPs, source control BMPs, and LID BMPs are incorporated into the project's design to treat the developed runoff. In conclusion, the Proposed Project would incorporate on-site detention facilities and BMPs to managing flood control, hydromodification, and water quality.

The cumulative projects in the vicinity of the Proposed Project are discussed in Section 1.7 "List of Past, Present, and Reasonably Anticipated Future Projects in the Project Area". Each project will be required to implement similar measures to address potential

drainage and runoff. Therefore, the Proposed Project will have **less than significant** cumulative impacts to local drainage patterns, runoff volumes and velocities.

Development of the projects listed in Table 1-7 could potentially result in significant cumulative water quality impacts. Through participation in the RWQCB NPDES Municipal Stormwater Permit program and regulations contained in the County WPO, regional water quality control can be achieved. The current requirements are intended to protect receiving water beneficial uses by implementing site specific and watershed-based requirements to meet related water quality objectives on a regional scale. Implementation of the Proposed Project would result in the generation of short- and long-term contaminants, and could contribute to cumulative water quality impacts in down stream waters. As discussed above, these impacts would be reduced to below level of significance on a project level through project design measures, including BMPs; however, because the generation of contaminants could be completely eliminated the Proposed Project would incrementally contribute to cumulative water quality impacts. These cumulative impacts are considered **less than significant** based on the following considerations: 1) all identified project-level water quality impacts would be reduced to below a level of significance through site and project specific design features and conformance with existing regulatory requirements; and 2) the Proposed Project and all applicable past, present and future developments within the watershed are subject to water quality standards identified in the noted NPDES Permit, with those requirements implemented through the County WPO.

Additionally, because implementation of the Proposed Project would result in a substantial overall net decrease in the amount of groundwater pumped from the Project Site, cumulative impacts to groundwater resources within the groundwater basin are considered **less than significant**.

4.2.6 Conclusion

The SWMP, Drainage Study and Hydromodification Management Study have all been prepared in accordance with the WPO and other relevant regulations. These studies conclude that the Proposed Project will not significantly alter overall drainage patterns associated with the surrounding area. Sediment discharge will be reduced or eliminated by landscaping open areas and incorporation of on-site detention facilities (detention basins/ ponds/settling basins). Existing slopes and discharge points will not be changed. Construction and post-construction BMPs will be put into place as part of the Proposed Project design to protect water quality and to ensure the use of water for beneficial uses to the maximum extent possible. The Proposed Project also results in the reduction of groundwater demand as compared to the existing condition. With design measures (see Table 1-5), BMPs, and conformance with the WPO, direct impacts to hydrology and water quality would be less than significant. Likewise, implementation of the project measures along with participation in and conformance to regional regulations and water quality programs cumulative impacts would also be **less than significant.**

Map Source: Rick Engineering Company, June 2009

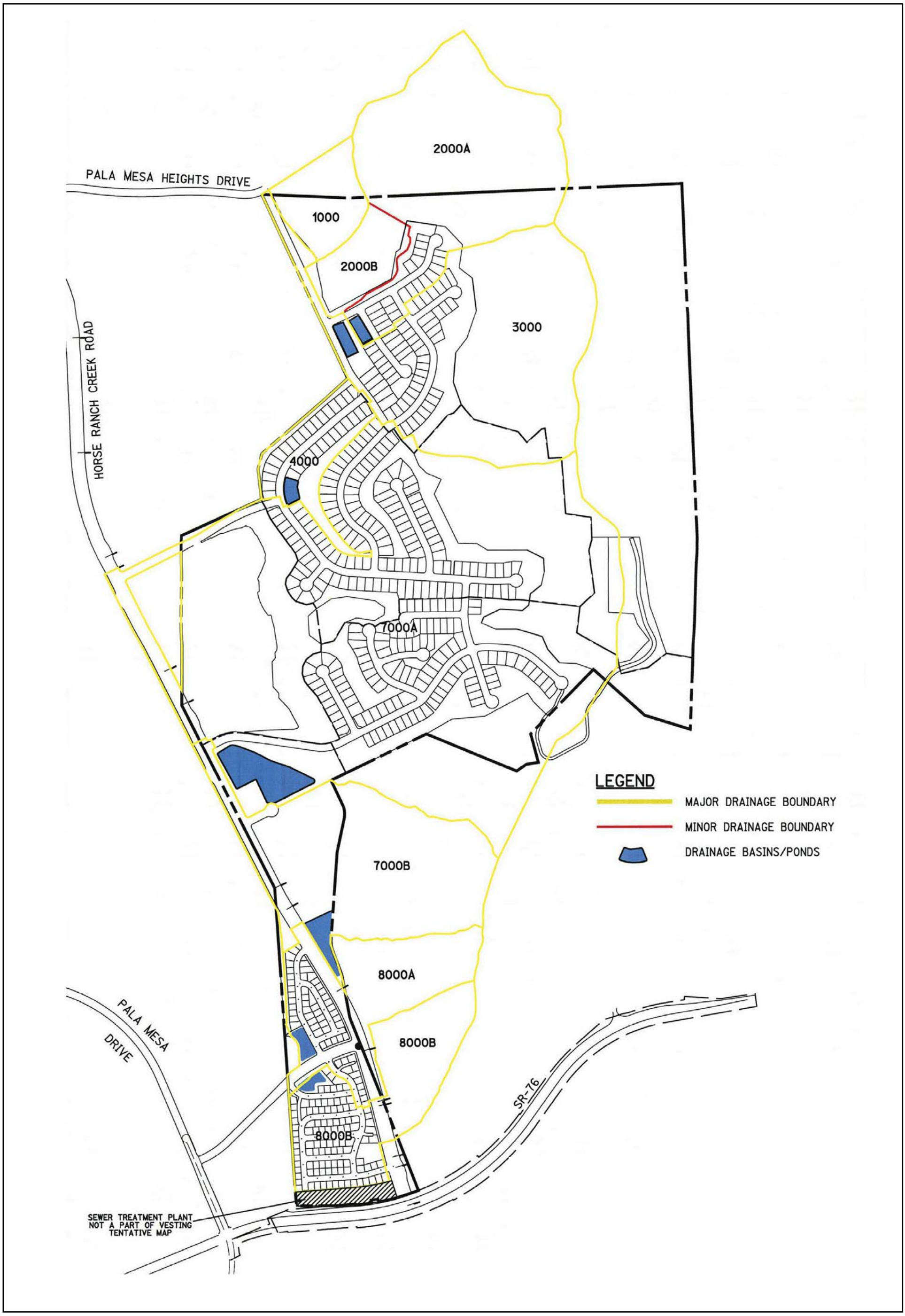


FIGURE 4.2-1
Drainage Features

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4.3 Public Services

Public services include basic support systems necessary for a functioning community. This section of the EIR will address schools, fire and police protection, and solid waste services.

4.3.1 Existing Conditions/Regulations

Schools

The Project Site is served by the Fallbrook Union Elementary School District (K-8) (FUESD), the Bonsall Union Elementary School District (K-8) (BUESD), and the Fallbrook Union High School District (9-12) (FUHSD). Approximately 67 acres of the Project Site lies within the FUESD, while the remaining 323 acres lie within the BUESD (Figure 4.3-1). The entire Project Site is within the FUHSD. Schools within the Proposed Project service area are shown on Table 4.3-1.

TABLE 4.3-1
STUDENT GENERATION RATES FOR SCHOOL DISTRICTS SERVING THE PROPOSED PROJECT

School District	Grades	Current Enrollment	Dwelling Units by Type	Student Generation Rate (student/DU)	Project Student Generation
Bonsall Union Elementary School District	K-8	1,688	SF = 317 MF = 204	SF = 0.4 MF = 0.4	208
Fallbrook Union Elementary School District	K-8	5,800	SF = 80 MF = 285	SF = 0.416 MF = 0.393	147
Fallbrook Union High School	9-12	3,095	SF: 397 MF: 489	SF = 0.195 MF = 0.111	132

SOURCE: BUESD and FUESD from http://www.sdcoe.k12.ca.us (2006); FUHSD 2006.
DU = dwelling unit
SF = single-family
MF = multi-family

Bonsall Union Elementary School District

The BUESD consists of two elementary schools, one middle school, and two charter schools. District enrollment in the 2005/2006 school year was 1,688 students.

Fallbrook Union Elementary School District

The FUESD extends from the Pacific Ocean east to I-15 and includes nine schools within the Fallbrook community and two schools on Marine Corps Base Camp Pendleton. The nine schools in the FUESD include seven elementary schools, one middle school, and a home school program. The FUESD schools that will serve the Project Site are Fallbrook Street School (K-2), Live Oak Elementary (3-6), and Potter Intermediate (7-8). Total enrollment for the FUESD 2005/2006 school year was 5,800.

Fallbrook Union High School District

The FUHSD encompasses an area of 130 square miles in the rural communities of Fallbrook, Bonsall, and Vallecitos, as well as the Pala Indian Reservation, Fallbrook Naval Weapons Station, portions of the Marine Corps Base at Camp Pendleton, and a small portion of the city of Oceanside.

FUHSD operates one comprehensive high school, one independent study high school, one continuation high school, and a satellite campus on the Pala Indian Reservation. The district provides public education services for approximately 3,095 students in grades 9 through 12.

Fallbrook High School currently uses 25 portable classrooms. The FUHSD is currently investigating the location for a second comprehensive high school, which will be constructed when issues of growth, location, and funding are resolved (FUHSD 2006).

Fire Protection Services

The County of San Diego General Plan, Public Facility Element, Fire Protection and Emergency Services section addresses the standards and requirements for fire protection and emergency services. Detail of emergency travel time goals and objectives is found in Chapter 3.5, Hazards.

The NCFPD is located in the northern part of San Diego County and bordered by Vista, Oceanside, Camp Pendleton and Riverside County. The NCFPD was formed in December 1986 as a result of the reorganization of the Fallbrook Fire Protection District and the Rainbow County Service area. The Project Site is adjacent to the service boundaries of the NCFPD and is within the NCFPD's SOI. The Project Site is proposed to be annexed into the NCFPD.

The NCFPD provides fire, rescue, advanced life support, and basic ambulance services to a population of more than 45,000 in an area covering 90 square miles, including the communities of Fallbrook, Bonsall, and Rainbow. In addition, the NCFPD provides structural and watershed fire protection and suppression, as well as emergency medical services. The NCFPD also provides emergency medical services for 40 additional square miles outside the primary service area. NCFPD has automatic aid agreements with the Vista and Deer Springs Fire Protection Districts, and mutual aid agreements with the California Department of Forestry and Camp Pendleton and has signed the San Diego County Mutual Aid Pact.

The NCFPD operates out of six fire stations; five staffed with full-time personnel and reserve personnel and one staffed with volunteer personnel. The station closest to the Project Site is located in the Village of Pala Mesa at 4375 Pala Mesa Drive, approximately one and a half miles from the property. The next closest station is the NCFPD Engine Number 6, located at 2309 Rainbow Valley Boulevard. This station is approximately four miles from the Project Site. This station is staffed by volunteers.

The third closest station is NCFPD Engine Number 5, located at 31403 Old River Road. Additional engines can be requested from Pala Reservation Fire Department and California Department of Forestry and Fire Protection engines to respond under either Automatic Aid or the State Mutual Aid Agreement.

Law Enforcement

The San Diego County Sheriff's Department provides generalized patrol services, as well as law enforcement and investigative services, to the unincorporated communities and rural areas within the county, including the Proposed Project. The California Highway Patrol is responsible for traffic safety on highways maintained by the state.

The San Diego County Sheriff Department's Fallbrook Substation, Bonsall Office, is located in downtown Fallbrook, approximately 11 miles from the Proposed Project. This station provides law enforcement services to the communities of Fallbrook, Bonsall, and Rainbow over a 137-square-mile area, including the Project Site.

The Law Enforcement section of the Public Facility Element of the County of San Diego General Plan provides facility standards for the provision of responses to calls for service. Response time is the time it takes a unit to get to the scene of a crime from the moment a call for service is received. Response time is the most meaningful indicator of the adequacy of the level of service. The minimally acceptable response time for urban areas is eight minutes or less for a priority call (calls involving life threatening situations or felonies in progress) and 16 minutes for non-priority calls.

Solid Waste

The Solid Waste section of the Public Facility Element of the County of San Diego General Plan identifies that the San Diego region is served by nine sanitary landfill sites, five of which are the property of the County and administered by the County Department of Public Works. Two sites are under the jurisdiction of the City of San Diego and three are the property of the United States Marine Corps at Camp Pendleton. The City of San Diego operates its landfills with its own work force. The County and Marine Corps contract with a private company to perform the daily landfill operations.

Of the existing sites, five have remaining capacity. These are Miramar, Ramona, Sycamore, Otay, and Borrego Landfills. In addition, the proposed 1,770-acre Gregory Canyon landfill site, located in northern San Diego County on SR-76, approximately three miles east of I-15 and two miles southwest of the community of Pala, would serve the project area. Currently, the RWQCB is reviewing the Gregory Canyon Landfill for its permitting process. Once the proposed Gregory Canyon Landfill is active, the Proposed Project may utilize this new landfill facility for solid waste management.

4.3.2 Guidelines for the Determination of Significance

For the purpose of this EIR, the basis for the determination of significance is the County of San Diego General Plan, Public Facilities Element, San Diego County Fire Protection District; San Diego County Sheriff's Department; BUESD; FUESD; FUHSD; and other local, regional, and state standards, plans, policies, and regulations; and CEQA Guidelines regarding adequate levels of service.

A project will have a significant adverse environmental effect related to public services systems if:

1. The development results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or

physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives as included in the Public Facility Element of the General Plan.

4.3.3 Analysis of Project Effects and Determination as to Significance

Overall, the residential development of the Proposed Project will add demands on public safety and service providers. The Specific Amendment Plan Public Facility Element was created to ensure that these facilities are present to support residential development within the SPA.

Schools

The Proposed Project has received a 'will serve' letter from both the BUESD and the FUESD. As identified on Figure 4.3-1, the boundary between the BUESD and the FUESD runs through the middle of the Project Site. The Proposed Project would result in the construction of up to 397 single-family and 489 multi-family residential units. Based on that housing mix, the Proposed Project will generate approximately 355 elementary students (K-8), 208 in the BUESD and 147 in FUESD. In addition, approximately 132 high school students would be generated by the Proposed Project within the FUHSD (see Table 4.3-1).

The Proposed Project includes a 12.7-acre site for the construction of an elementary school within BUESD. The proposed elementary school would serve the BUESD students generated by the Proposed Project. The 147 students generated within the FUESD would be served by one of the following existing schools: Fallbrook Street School (K-2), Live Oak Elementary (3-6), and Potter Intermediate (7-8). Since there are sufficient facilities to serve these additional students, impacts to school services for the BUESD and FUESD would be **less than significant**. If the BUESD chooses not to build a school in this location, an additional 42 dwelling units may be built. In that case, the school fees required to be paid upon receipt of building permits can go toward the improvement of the other existing schools within the BUESD. Therefore impacts would be **less than significant**.

Fire Protection Facilities

As noted above, the Project Site is adjacent to the boundaries of the NCFPD. The NCFPD has provided a 'will serve letter' as well as detailed fire protection development standards concerning roadway width, secondary access, fuel modification zones, water supply, and fire hydrant spacing. These standards, detailed in the FPP have all been incorporated into the Proposed Project as design measures and are required as part of implementing permits conditions.

Section 11 of the General Plan – Public Facility Element states that the first arriving fire truck should be at the scene within five minutes. An NCFPD station is located on the southwest corner of Pala Mesa Drive and Old Highway 395. Pala Mesa Drive will be improved from the existing bridge crossing I-15 to the project site via Street R, as well as a northward extension of Street D to Pala Mesa Heights Road. Additionally, emergency access to Rice Canyon via a northeasterly extension of Street E is included in the Proposed Project's circulation plan. Based on the information provided by NCFPD,

construction of these roadways will ensure that emergency services response time will be within five minutes for the furthest dwelling unit. According to a June 26, 2009, letter from County Fire Marshal Paul Dawson, traveling at 35 mph, the furthest dwelling unit can be reached in five minutes, which is consistent with the General Plan requirement. Therefore, impacts associated with fire protection services and response time will be **less than significant**.

Since the Proposed Project is located in an area of considerable wildlands, the site is subject to wildfires. To address this, the Proposed Project incorporates fire protection standards and a conceptual fuel modification plan pursuant to the FPP. These are addressed within Section 3.6 of this document.

Law Enforcement

The Sheriff's Department has indicated that future response times to the Proposed Project cannot be accurately estimated, as they depend on such factors as type of call, call priority, previous calls pending, time of day, location of squad car and amount of traffic. The issue under CEQA is whether the proposed project would "result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives" for the public service. For law enforcement, the performance measurement is service ratio.

The County Sheriff's Department reviewed the Proposed Project as described in the RDEIR to determine whether any new or expanded facilities would be needed as a result of the Proposed Project. The Proposed Project has received a letter from the Sheriff's Department dated June 5, 2006. As indicated in the letter, the Sheriff's Department does not anticipate having to add additional staff in order to provide law enforcement services to the Proposed Project, and no new facilities or expansion or existing facilities would be required. The Proposed Project would not require the expansion of existing police protection facilities or the development of new facilities. As such, the Proposed Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered facilities, and direct law enforcement service impacts would be **less than significant.**

Solid Waste

Development of the land uses proposed for the Proposed Project would place additional demands on solid waste facilities. The Proposed Project will deposit waste at a permitted waste facility in compliance with federal, state, and local statutes and regulations related to solid waste. All solid waste facilities, including landfills, require solid waste facility permits to operate. In San Diego County, the County DEH, as the Local Enforcement Agency, issues solid waste facility permits with concurrence from the California Integrated Waste Management Board (CIWMB) under the authority of the Public Resources Code (Sections 44001-44018) and California Code of Regulations Title 27, Division 2, Subdivision 1, Chapter 4 (Section 21440et seq.). There are five permitted active landfills in San Diego County with remaining capacity. Therefore, there is sufficient existing permitted solid waste capacity to accommodate the project's solid waste disposal needs. Impacts will be **less than significant.**

4.3.4 Cumulative Impact Analysis

The Proposed Project, in conjunction with other projects in the area, will place an added demand on public services. A list of cumulative projects considered in developing the cumulative impacts is discussed in Section 1.7 of this EIR.

As indicated in the letter from the Sheriff's Department dated June 5, 2006, the Proposed Project, in combination with the surrounding cumulative projects, will require the need for a new Sheriff's station. To plan for future growth, the Sheriff's Department completed the Law Enforcement Facilities Master Plan (2005) (LEFMP). In addition to assessing the existing conditions of County law enforcement facilities, the LEFMP, using population projections prepared by SANDAG, recommended the construction of a new station along the northern section of the I-15 corridor (Mays, personal communication, 2006). Facilities identified in the LEFMP are prioritized into categories one through four; the new facility to be located in the I-15 corridor is listed as a priority four with an approximate occupancy date of 2019. At this time, the County has not yet designated a site or acquired property for a future station. However, based upon discussion with the Sheriff's Department, the preferable future location would be south of SR-76, possibly within the Campus Park West project site.

The cumulative impacts analyzed within this EIR, include those impacts that are reasonably foreseeable by the construction of a Sheriff's station at the Campus Park West project site. The Campus Park West project is included in the list of cumulative projects discussed in Section 1.7 of this EIR. Environmental impacts associated with the development of Campus Park West, including civic uses permitted within the commercial land use designation, are analyzed within the cumulative discussions in Chapter 2.0 and 3.0 of this EIR. **No further impacts are identified**.

As discussed above, the Proposed Project would not result in significant impacts to the provision of school, fire protection, law enforcement, and solid waste services. In addition, prior to the issuance of building permits for all projects approved by area lead agencies, design measures will be incorporated into the project to reduce significant impacts to public services to below a level of significance (e.g., providing the service, contributing to pro-rata share, participating in an assessment district, etc). With implementation of these features, cumulative impacts to the provision of public services would be **less than significant**.

4.3.5 Conclusion

Impacts to public services from the Proposed Project will be less than significant. Implementation of the proposed design measures listed in Table 1-5, will ensure the availability of adequate public services for the Proposed Project.

Schools

BUESD, FUESD, and FUHSD have indicated they will be able to serve the projected student population associated with the Proposed Project. In addition, the Proposed Project includes 12.7 acres designated as a school site to serve the projected increase in student population within the BUESD. Therefore, impacts to school services will be less than significant.

Fire Protection Services

The Project Site is proposed to be annexed to the NCFPD which has the capacity to serve the site. In addition, the Proposed Project includes a FPP with requirements for future development. The FPP and fuel modification zones are discussed in more detail in Section 3.7. The internal roadway system included as part of the Proposed Project's design will assure that emergency service response time is adequate. Therefore, impacts to fire protection services would be less than significant.

Law Enforcement

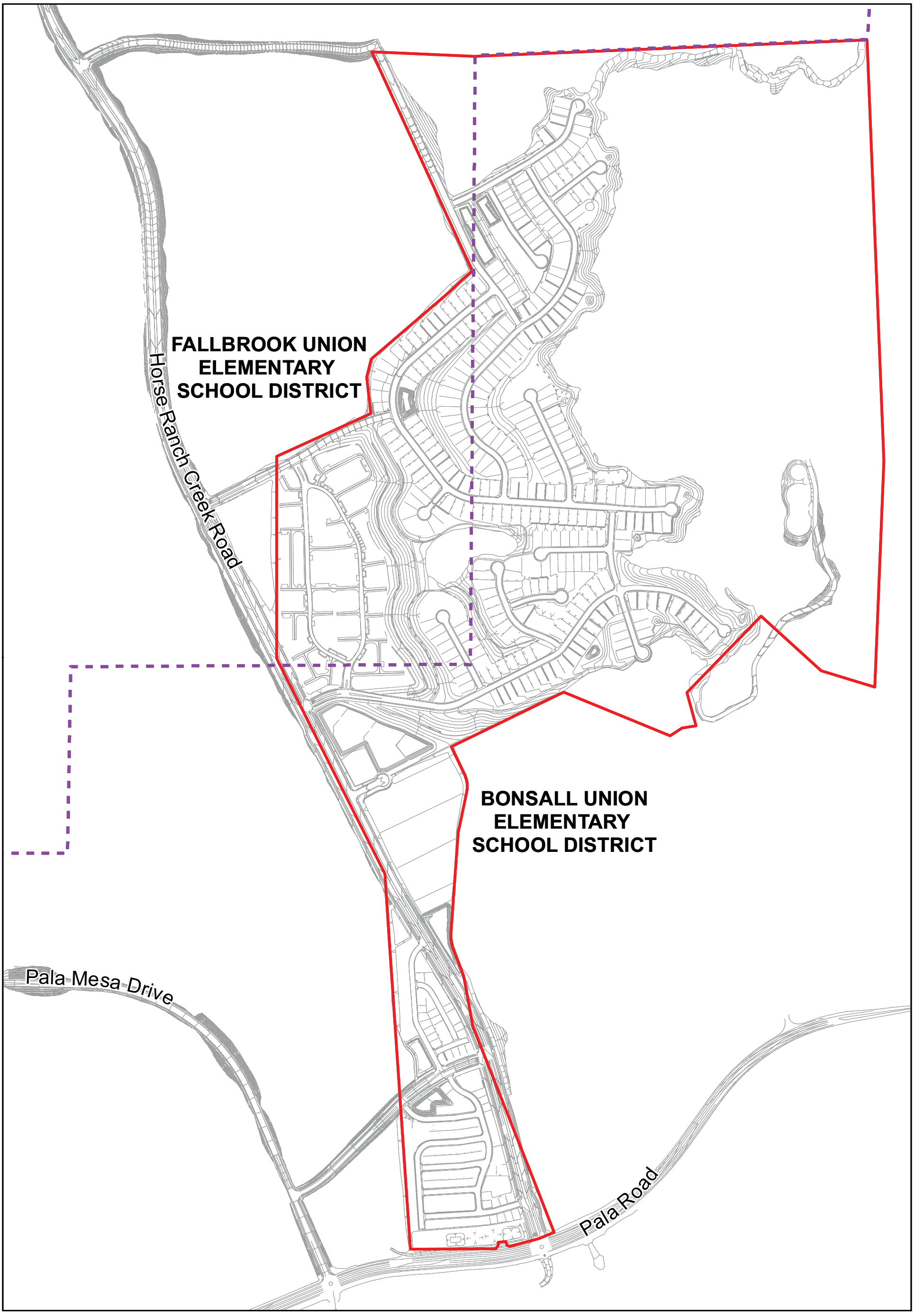
The Proposed Project has received a letter from the Sheriff's Department dated June 5, 2006 indicating that the Proposed Project would not impact response time or law enforcement services. Therefore, direct law enforcement service impacts would be less than significant.

However, as discussed above, the Proposed Project, in combination with the surrounding cumulative projects, will require the need for a new Sheriff's station. Although a specific site has not been chosen, the preferable future location would be south of SR-76, possibly within the Campus Park West project site. The cumulative impacts analyzed within this EIR, analyze those impacts that are reasonably foreseeable by the construction of a Sheriff's station at the Campus Park West project site. The Campus Park West project is included in the list of cumulative projects discussed in Section 1.7 of this EIR. Environmental impacts associated with the development of Campus Park West, including civic uses permitted within the commercial land use designation, are analyzed within the cumulative discussions in Chapter 2.0 and 3.0 of this EIR. Therefore, no further impacts are identified.

Solid Waste

There is adequate capacity at area landfills which will be augmented by activation of the proposed Gregory Canyon Landfill to meet the Proposed Project's solid waste management needs. Therefore, impacts will be less than significant.

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FIGURE 4.3-1

School Site Boundary

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4.4 Population and Housing

Currently, there are four houses on the Project Site. These would be demolished and replaced with 886 new single- and multi-family residences. Since the existing units would be replaced by a greater number of units, the Proposed Project would not displace a substantial numbers of existing housing or substantial numbers of people, necessitating the construction of replacement housing elsewhere.

According to SANDAG, San Diego County currently lacks affordable housing. The region faces a housing crisis because construction is not keeping up with demand and the costs of owning and renting housing within the County is beyond the ability of many people to make housing payments (SANDAG 2001). Because of housing shortages and the high cost of home prices, many of the County's employed reside in more affordable areas outside the regions in which they work, leading to long commutes. These long commutes contribute to increased traffic congestion, air pollution, and energy consumption. Those who do stay in the region often pay more than they can afford for housing and may live in overcrowded housing situations.

The Proposed Project would provide the addition of 886 housing units that would be located in an area identified by the SANDAG Smart Growth Concept Map as a potential Special Use Center smart growth area. Refer to Section 1.8, Growth Inducing Analysis for details. The quadrant northeast of I-15 and SR-76 also includes the Campus Park, Campus Park West, and Palomar College projects. The Proposed Project (up to 886), Campus Park (up to 751), and Campus Park West (up to 355) projects combined would provide up to 1,192 housing units. These developments would be comprised of both single and multi-family housing choices, which would be relatively affordable. The Proposed Project, in conjunction with the other projects in the quadrant, would provide jobs, housing, retail, and recreational opportunities within walking distance of one another and within close proximity to transit service. This would aid in addressing the air quality, traffic, increased energy consumption, and commute time impacts associated with single-use development types.

The San Diego County General Plan, Fallbrook CP, and the Meadowood Specific Plan Amendment acknowledge the Campus Park, Campus Park West, and Palomar College developments in conjunction with the Proposed Project. All of this development is addressed in these planning documents, which consider the population growth and housing concerns in relation to development proposed by the Proposed Project. As the Proposed Project would provide 886 single- and multi-family housing units, and would not displace any housing, impacts to population and housing would be **less than significant**. Likewise, the cumulative introduction of housing proposed by the Campus Park and Campus Park West projects would be **less than significant**. The potential for the Proposed Project to induce substantial population growth in an area is addressed in more detail in Chapter 1.8.

4.5 Mineral Resources

The following discussion of mineral resources within the Proposed Project is based on the Mineral Resource Technical Report that was prepared by Leighton and Associates in April 2009 (Appendix M).

4.5.1 Existing Conditions/ Regulations

Geology

Gabbroic rock outcrops dominate the elevated areas at the site, while sedimentary deposits comprise the lower-lying areas of the site. The primary bedrock unit on-site is Cretaceous-aged Gabbroic rocks. Alluvial (floodplain) and colluvial (slopewash) deposits are mapped in the flatter lower-lying slopes through the central and southwestern portion of the Project Site. The generalized geologic map units are illustrated as shown on Figure 3.3-1, based on mapping published by the California Geologic Survey (CGS 2000a and 2000b). The geologic units are discussed in further detail in Chapter 3.2 (Geology and Soils).

Mineral Resource Zones

As mandated by the Surface Mining and Reclamation Act of 1975, the California State Mining and Geology Board classifies California mineral resources with the Mineral Resource Zones (MRZs) system. These zones have been established based on the presence or absence of significant sand and gravel deposits and crushed rock source area, e.g., products used in the production of cement. The classification system emphasizes Portland Cement Concrete (PCC) aggregate, which is subject to a series of specifications to ensure the manufacture of strong durable concrete. The following guidelines are presented in the mineral land classification for the region:

- MRZ-2 - Areas where adequate information indicates that significant mineral deposits are present or where it is judged that there is a high likelihood for their presence.

- MRZ-3 - Areas containing mineral deposits, the significance of which cannot be evaluated from available data. In contrast to MRZ-2 areas where it has been judged that there is a high likelihood of minable, marketable mineral deposits (notably Portland cement and asphaltic concrete aggregate), MRZ-3 areas are areas where the data is not sufficient to evaluate the significance of any potential aggregate deposit.

- MRZ-4 - Areas where available information is inadequate for assignment to any other MRZ zone.

Mineral Resources on the Project Site

The extent of zones classified as MRZ-2 in the vicinity of the Project Site is identified on Figure 4.5-1. The MRZ-2 zone trends east to west and roughly follows the same geographic area as the San Luis Rey River drainage area, which includes a relatively thick accumulation of alluvial deposits, with an irregular, organic boundary defined by the low-lying topographic drainage margin. This includes 5.8 acres of the southernmost portion of the Project Site. Geologically, this area is generally characterized by the

presence of younger (Quaternary-aged) river channel, floodplain, and terrace deposits that have been eroded from the older (Tertiary to Cretaceous-aged) bedrock units, transported, and redeposited. They consist of naturally loose mixtures of sands and rounded gravels.

Approximately 101 acres of the western edge of the Project Site are mapped as MRZ-3. Approximately 33.2 acres of this area is likely to contain young alluvial deposits. The total 39 acres of younger alluvium (approximately 33.2 acres mapped as MRZ-2 and 5.8 acres mapped as MRZ-3) can be considered to be correlative with the alluvium identified as MRZ-2 in Sectors C and D to the south within the San Luis Rey River Drainage. Site-specific laboratory testing has not confirmed the physical and chemical characteristics of the on-site alluvial deposits are appropriate for PCC-grade aggregate. However, successful sand and gravel mining operations of PCC-grade aggregate are well documented along the San Luis Rey River drainage in the MRZ-2 areas.

The rest of the western portion of the Project Site is mapped MRZ-3, and contains older alluvial terrace deposits which contain more fines and are less minable and marketable than adjacent known deposits. In addition, the weathered mafic gabbroic rocks of the Project Site hillsides which are not designated as a mineral resource zone are differentiated from adjacent areas known to be MRZ-2, such as the San Luis Rey alluvium, as well as the leucratic granodiorite comprising the adjacent Rosemary's Mountain.

In summary, the Project Site is underlain by approximately 39 acres of young alluvial deposits. Approximately 5.8 acres of these deposits are mapped as MRZ-2 with the remainder mapped as MRZ-3. The rest of the Project Site is underlain by weathered gabbroic rock and older alluvial deposits, and not considered likely as a high quality aggregate source. Thus, with the exception of 39 acres of younger alluvial floodplain deposits in the southernmost portion of the site, the majority of the Project Site is not underlain by geologic units traditionally known as desirable, marketable sources units of sand or aggregate suitable for asphaltic concrete or Portland Cement Concrete.

Mineral Resources in the Project Area

San Luis Rey River floodplain deposits (mapped as Qa) directly to the south of the Project Site are mapped as MRZ-2 and are also considered to be significant mineral resource deposits. The greater San Luis Rey River Valley has been identified as a valuable resource area containing an estimated 1.6 billion tons of sand and 1.2 billion tons of coarse aggregate through the 14,607-acre drainage basin.

There are several documented historical aggregate extraction operations in the project area as described below. All but one, the Pankey Ranch/Rosemary Mountain site, has been terminated.

- **Fenton Sand Mine.** A short distance east of the Project Site is the Fenton Sand Mine which originated as a 27-acre sand mine initially permitted in 1969. In 1975 a 30-year Major Use Permit (74-088) was granted to allow extraction from an expanded 211-acre area. It was operated by the H.G. Fenton Company through November of 1998, when Hanson Aggregates assumed responsibility of the operation. Hanson closed the sand and gravel processing plant as of September 15, 2005.

- **Pankey Pits.** The closest known historical aggregate extraction operation is located to the southeast of the site, closer to the San Luis Rey River. This property was originally known as the Pankey Pits, where the Marron Brothers extracted sand and gravel from the San Luis Rey River drainage. Like many in-stream operations, permitting processes and regulations became increasingly difficult, and the site was entirely inactive by the early 1990s.

- **Pankey Ranch/Rosemary's Mountain.** In the late 1980s Palomar Grading and Paving acquired a lease on the Pankey Ranch, an elevated hillside immediately north of the Pankey Pits historically operated within the San Luis Rey River. The approximate 100-acre site is a small peak known as Rosemary's Mountain, ranging in elevation of approximately 300 to 990 feet (see Figure 4.5-1). In 1989, Palomar submitted a petition to the State of California Division of Mines and Geology for a reclassification of the MRZ-3 zoned property to MRZ-2. The Granite Construction Company has since partnered with Palomar on the project, and a Major Use permit has been obtained. Plans for the rock crushing, extraction of aggregate and operation of an asphalt plant on 38 acres of the 94-acre site, are in progress.

4.5.2 Guidelines for the Determination of Significance

The basis for the determination of significance is based on the County's Guidelines for Determination of Significance, Mineral Resources, adopted July 30, 2008. A significant impact would occur as a result of project implementation if:

1. The project is:

    - On or within the vicinity (generally up to 1,300 feet from the site) of an area classified as MRZ-2; or

    - On land classified as MRZ-3; or

    - Underlain by Quaternary alluvium; or

    - On a known sand and gravel mine, quarry, or gemstone deposit;

    AND

    The project will result in the permanent loss of availability of a known mineral resource that would be of value to the region and the residents of the state;

    AND

    The deposit is minable, processable, and marketable under the technologic and economic conditions that exist at present or which can be estimated to exist in the next 50 years and meets or exceeds one or more of the following minimum values (in 2005 dollars):

- Construction materials (sand and gravel, crushed rock) $15,000,000*
  *Updated to 2008 dollars.

- Industrial and chemical mineral materials $3,000,000

  (limestone, dolomite, and marble [except where used as construction aggregate]; specialty sands, clays, phosphate, borates and gypsum, feldspar, talc, building stone, and dimension stone)

- Metallic and rare minerals $1,500,000

4.5.3 Analysis of Project Effects and Determination of Significance

A significant impact would occur if the project is within an area of mineral deposit, and would result in the permanent loss of availability of a known mineral resource that would be of value to the region and the residents of the state, and the deposit is minable, processable, and marketable under the technologic and economic conditions as described above.

The County Report Format requires three separate analyses of land use compatibility as follows:

1. On-site impacts to mineral resources from existing and proposed intended on-site land uses

2. On-site impacts to mineral resources after taking into consideration existing off-site noise sensitive land uses

3. Proposed on-site land use impacts to off-site MRZ-2 designated lands within 1,300 feet of the project site

The County Guidelines provide that 1,300 feet is generally considered the setback from residences necessary to achieve adequate separation from noise, dust and other characteristics generated by aggregate extraction and processing. Areas within this 1,300 feet setback (buffer zone) are considered incompatible with future mining.

On-site Impacts from Proposed On-site Land Uses

This analysis focuses on the impact of the Proposed Project and its existing and intended land uses to on-site mineral resources. As previously discussed, approximately 39 acres of younger alluvial floodplain deposits (mapped as Qa) in the southernmost portion of the Project Site are the only on-site geologic unit traditionally known as containing desirable, marketable source units of sand or aggregate suitable for asphaltic concrete or Portland Cement Concrete.

The Mineral Resources Technical Report determined that the entire 39 acres of on-site floodplain deposits are located on or within 1,300 feet of existing residential properties on the Meadowood site and as a result are already lost to future mining. Therefore, implementation of the Proposed Project would not result in any additional impacts to these resources: on-site Impacts would be **less than significant**.

On-site Impacts from Off-site Land Uses

Since all on-site mineral resources were determined to be incompatible or lost to future mining due to the presence of existing residences on the Project Site, impacts would be **less than significant**.

Off-site MRZ-2 Impacts from Proposed On-site Land Uses

A single-family residence is located on-site just north of SR-76. A 1,300 foot buffer from the property line of this residential parcel effectively precludes the ability to mine within MRZ-2 designated lands off-site. Implementation of the Proposed Project would result in the same 1,300 feet radius to the south and will not impact any additional mineral resources since they are already lost from existing on-site residential properties.

Rosemary's Mountain quarry is located directly east of the project site and is mapped as MRZ-2. The existing on-site residential property and the project buffer zone directly west of Rosemary's Mountain reaches into MRZ-2 designated land on Rosemary's Mountain. The Proposed Project is anticipated to impact approximately 13 acres of MRZ-2 land on Rosemary's Mountain. However, the proposed quarry on Rosemary's Mountain would conduct all mining activities on the east facing slope of the mountain, which shields it from the Project Site. Expansion of the Rosemary's Mountain quarry may be precluded by the County's noise setback requirements due to the presence of the existing residence within 1,300 feet of the quarry and by the conditions of approval imposed by the County on the operation of the quarry. Off-site MRZ-2 Impacts from Proposed On-site Land Uses therefore would be **less than significant.**

Marketability and Minimum Dollar Value

The on-site and off-site mineral resources within 1,300 feet of the Project site mapped as Qa and/or MRZ-2 are considered minable, processable, and marketable since this resource is considered to be a high quality (PCC grade) aggregate source, which would be of value to the region. However, the land use compatibility analysis indicates that the entire 39 acres of the Project Site mapped as Qa and off-site MRZ-2 designated land is located on or within 1,300 feet of existing residential properties on the Meadowood site. Therefore, it is considered incompatible or lost to future mining. Implementation of the Proposed Project would not result in any additional impacts to these resources. As such, there would be no economic impact to mineral resources: impacts would be **less than significant**.

4.5.4 Conclusion

Implementation of the Proposed Project will not result in the future inaccessibility for recovery (extraction) of on-site or off-site mineral resources. Therefore, any loss of availability of a known mineral resource of value to the region and the residents of the state would be less than significant. Moreover, if the resources are not considered significant mineral deposits, loss of these resources cannot contribute to a potentially significant cumulative impact.

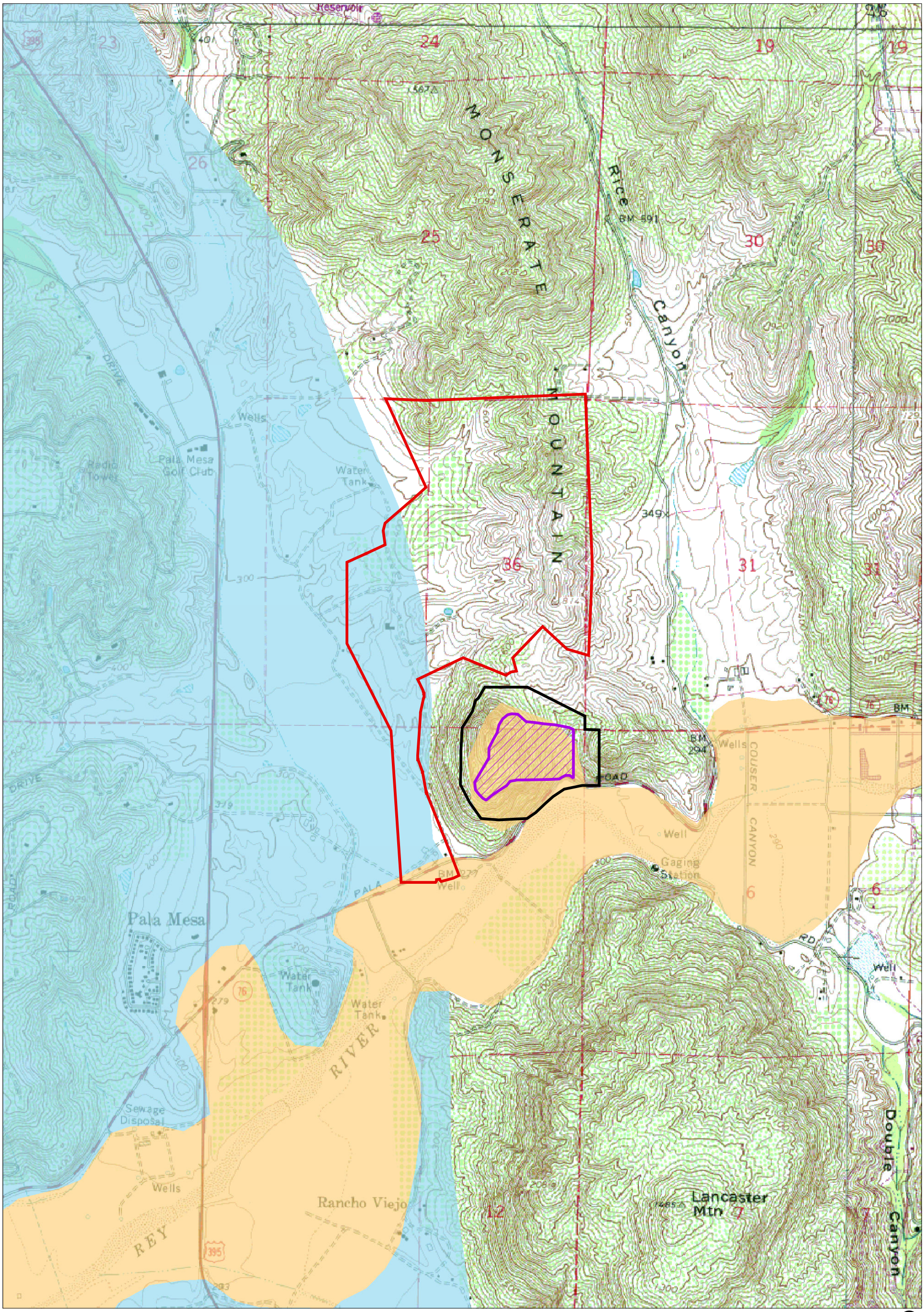
The on-site and off-site mineral resources within 1,300 feet of the Project Site mapped as MRZ-2 are considered minable, processable, and marketable since this resource is considered to be a PCC grade aggregate source, which would be of value to the region.

However, the land use compatibility analysis indicates that the entire 39 acres of the Project Site and off-site MRZ-2 designated land is located on or within 1,300 feet of existing residential properties on the Project Site. Implementation of the Proposed Project would not result in any additional impacts. Therefore, impacts associated with the Proposed Project are less than significant.

The Proposed Project is also anticipated to impact approximately 13 acres of off-site MRZ-2 designated land on Rosemary's Mountain. However, the proposed quarry on Rosemary's Mountain would conduct all mining activities on the east facing slope of the mountain, which shields it from the Project Site. Therefore, the implementation of the Proposed Project impacts to the permitted mining activities on Rosemary's Mountain would be less than significant.

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Map Source: USGS 7.5 minute topographic map series, BONSALL quadrangle



Proposed Project Boundary

Limits of Mining Boundary

Rosemary Mountain Quarry Property Boundary

Mineral Resource Zones

"Regionally Significant" MRZ-2 Aggregate Resource Areas

MRZ-3 Mineral Resources Potentially Present

FIGURE 4.5-1

Mineral Resources Within and Surrounding the Proposed Project

RECON

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4.6 Utilities

4.6.1 Existing Conditions

This section of the EIR addresses the provision of water and wastewater services required for project development addressed, as well as service providers and facilities needed to meet this demand. The following water and wastewater services technical reports were prepared and are attached as Appendices to the EIR: Meadowood Water Study (2009) (Appendix N-1); Water Supply Assessment and Verification (WSA&V) Report for the Meadowood Project (2009) (Appendix N-2) and Wastewater Service Alternative Analysis for Meadowood (2009) (Appendix N-3).

4.6.2 Existing Regulations

Senate Bills 610 and 221

The California Legislature has adopted legislation that addresses water supply planning efforts. The legislation, commonly referred to as Senate Bill 610 and Senate Bill 221, are now codified in Water Code §§10910-10914 and Government Code §§65867.5, 66455.3, and 66473.7 and became effective January 1, 2002. SB 610 mandates that the water supplier of a public water system, or, if no water supplier of a public water system is identified, the city or county, acting as the lead agency, shall be required to prepare a water supply assessment to be included in the environmental documentation for certain projects subject to CEQA, as specified in Water Code §10912. Under SB 221, approval by a city or county of certain residential subdivisions requires an approval of a WSA&V report.

San Diego County General Plan—Conservation Element

The County of San Diego General Plan (General Plan) recognizes that the continued growth and development of San Diego County is dependent on the availability of an adequate supply of potable water, and on the region's ability to treat and dispose of wastewater. San Diego County is almost entirely dependent upon imported water. Additionally, a major portion of San Diego County's treated wastewater is disposed of into the Pacific Ocean. Because of these facts, the General Plan includes a Conservation Element which sets policies pertaining to water and wastewater.

The General Plan Compliance Report for the Meadowood Project (Appendix K) contains a complete listing of the Conservation Element policies regarding water and wastewater and the Proposed Project's compliance with each. The following is a list of some of the policies applicable to the Proposed Project:

POLICY 3: The County shall support programs which assure an adequate supply and quality of water to meet the present and future population needs and to ensure this water is provided in concert with environmental and growth management policies.

POLICY 5: Water distribution systems should be designed and constructed to economically accommodate future use of reclaimed or desalinized water when technologically and economically feasible. Construction of such compatible distribution systems may be less costly than future costs of modifying existing systems to accommodate other water sources.

POLICY 11: The County will encourage projects which will promote the reclamation and reuse of wastewater. Such projects will be given funding priority in all water management programs.

POLICY 13: Decisions regarding the location, size, and timing of wastewater service extensions should be in conformance with adopted urban development policies contained in all elements of the General Plan and current growth policies. Sewer service expansion shall be coordinated with the extension of other needed services and facilities.

San Diego County General Plan—Public Facility Element

The primary goal of the Wastewater section of the Public Facility Element of the General Plan is to provide wastewater treatment and disposal capacity to adequately meet future demands. The General Plan seeks the "assurance that privately-proposed wastewater treatment plants are consistent with sewer master plans and meet the anticipated needs of the project and subregion." To meet this objective the Public Facility Element sets specific policies.

The General Plan Compliance Report for the Meadowood Project (Appendix K) contains a complete listing of the Public Facility Element policies regarding wastewater and the Proposed Project's compliance with each. The following is a list of some of the policies applicable to the Proposed Project.

POLICY 1.2: Discretionary land development projects will only be approved if the service provider reasonably expects that wastewater treatment and disposal will be available concurrent with need and that all appropriate requirements will be met through conditions placed on project approval.

POLICY 1.3: All land development projects requiring the use of sewage conveyance, treatment and disposal facilities shall obtain a commitment of service from the appropriate district prior to land preparation and construction.

POLICY 2.1: The County will regulate the use of privately proposed wastewater treatment plants to ensure that they are properly located (see, County of San Diego Board of Supervisors Policy I-78, below), meet the sewer needs of the project, do not cause premature urbanization and create no immitigable environmental effects. Availability of service from a wastewater treatment facility will not be justification for increasing densities allowed by the General Plan and zoning.

County of San Diego Board of Supervisors Policy I-78

The County Board of Supervisors adopted Policy I-78 for the purpose of establishing a policy relating to the approval of requested locations for on-site "small wastewater treatment facilities." "Small wastewater treatment facilities" is defined as a facility with a capacity of up to 2,000 equivalent dwelling units or approximately 0.48 million gallons per day. Pursuant to Policy I-78, prior to approving "small wastewater treatment facility" specific findings must be made (in addition to the findings pursuant to the Public Facility Element; however, Policy I-78 provides a waiver of the requirement to make these findings if the proposed facility will be operated by a public agency authorized to provide wastewater service).

County of San Diego Board of Supervisors Policy I-84

Board Policy I-84 was adopted to establish consistent procedures for using Project Facility Availability (PFA) forms and, in certain cases, Project Facility Commitment (PFC) forms, in the processing of land divisions and certain other projects requiring discretionary approval by the County. Specifically, the County General Plan requires that the County ensure that adequate facilities are available concurrent with need before giving final approval to projects. The policy generally requires PFA and/or PFC forms to be submitted at intake of a project; however, the significance is to assure that water, sewer and fire protection services are available prior to Final Map recordation and issuance of building permits.

Water Supply and Service

Groundwater Supplies

As detailed in Chapter 4.2 above, the Project Site has an existing avocado grove and citrus orchard which have been in operation since the 1980s. Existing on-site agricultural groundwater demand is estimated to be approximately 618 af/yr.

Metropolitan Water District of Southern California (MET)

The MET is a public agency that was formed in 1928 by state legislation for the purpose of developing, storing, and distributing water to the residents of southern California. MET's mission is to "to provide its service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way" (Metropolitan 2005). MET currently receives imported water from two major sources: (1) Colorado River water via the Colorado River Aqueduct; and (2) State Water Project (SWP) water via the California Aqueduct, which is owned and operated by the Department of Water Resources.

MET's service area is nearly 5,200 square miles and includes portions of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura Counties. Although only 13 percent of the land area of these six counties is within MET's service area, nearly 90 percent of the populations of those counties (approximately 16 million people) reside within its boundaries. MET is composed of 26 member agencies, including 14 cities, 10 MWDs, one utilities agency, and one county water authority. MET is a water wholesaler with no retail customers. Currently, member agencies receive treated and untreated water from MET at various delivery points. To aid in planning future water needs, member agencies advise MET of how much water they anticipate they will need during the next five years. In addition, MET works with its member agencies to forecast future water demand and develop emergency supply strategies to ensure a secure, long-term water supply.

On November 8, 2005, MET adopted its 2005 Regional Urban Water Management Plan (UWMP). MET's reliability assessment showed that MET can maintain reliable water supplies to meet projected demand through 2030. MET also identified buffer supplies, including other SWP groundwater storage and transfers that could serve to supply additional water needs.

San Diego County Water Authority (SDCWA)

SDCWA is a regional water wholesaler that was organized on June 9, 1944, and became a member of MET in 1946 in order to obtain a water supply from the Colorado River. The mission of SDCWA is to provide a "safe and reliable supply of water to its member agencies serving the San Diego region" (SDCWA 2005). SDCWA currently has 24 member agencies, which include six cities, five water districts, three irrigation districts, eight municipal water districts, one public utility district, and one federal agency (military base). Its service area encompasses approximately 1,438 square miles (920,000 acres) and a population of approximately three million people.

SDCWA receives 72 percent of its imported water from MET. SDCWA is MET's largest member agency, purchasing up to 30 percent of MET's supplies annually, with the possibility that this amount could be reduced 21 percent in 2009. The remaining water supplies come from local water sources, including groundwater, local surface water, recycled water, seawater desalination and conservation. SDCWA has recognized that San Diego County must diversify its water supplies, thereby decreasing the percentage of imported water in the region's total supply mix. Currently, SDCWA is actively locating, evaluating, and developing new water sources that will help meet the county's needs, while striving to protect and enhance the region's sensitive ecosystem during construction and maintenance of vital water supply projects (SDCWA 2005).

In 2003, SDCWA began receiving water transfers from the Imperial Irrigation District pursuant to the Quantification Settlement Agreement (QSA). The QSA provides for the annual transfer of up to 200,000 acre-feet of water to the SDCWA. For 2009, SDCWA is pursuing one-year, spot water transfers with other California water districts for up to 50,000 acre-feet of transfers. Additionally, SDCWA has entered into a cooperation agreement with the San Juan District and the Santa Clara Valley Water District to develop a pilot dry-year water transfer program of up to 7,000 acre-feet. SDCWA has also developed emergency supply strategies to ensure a secure, long-term water supply for its member agencies.

Pertinent Regional Water Supply Plans

Both MET and SDCWA have developed plans that address long-term water supply demand, as well as catastrophic supply interruption and emergency storage. These plans are described below, and are hereby incorporated by reference into this EIR.

Metropolitan 2005 Urban Water Management Plan; Water Surplus and Drought Management Plan

The Urban Water Management Planning Act (the Act) requires all urban suppliers in the state to prepare UWMPs and update them every five years. In 2005, MET updated it's UWMP, which identifies water demand and supply capabilities of MET in order to evaluate long-term water supply reliability for its service region through the year 2030. Consistent with the Act requirements, the UWMP evaluates long-term water supply reliability via three planning tools: (1) a water supply reliability assessment; (2) a water shortage contingency plan; and (3) a plan to address catastrophic interruptions in water supplies. The outcome of these three planning processes included in the UWMP is discussed briefly below.

MET uses an Integrated Resource Planning (IRP) process to evaluate the supplies necessary to meet demands over at least a 20-year period in average, single year, and multi-year drought conditions. MET's available water supply and delivery patterns are influenced by factors such as environmental regulation, competition outside Southern California, and environmental factors. For example, the Colorado River Basin has experienced a five-year drought that is unprecedented in recorded history, impacting the amount of water available to MET from that source. However, the reliability analysis for the IRP showed that MET can maintain reliable supplies under conditions that have existed in past dry periods through 2030 (UWMP 2005). MET has also identified additional groundwater storage and transfers that could serve to supply additional water needs. Table 4.6-1 summarizes MET's anticipated water supply sources and anticipated demand for the year 2030 (normal year estimate).

MET has also developed a Water Surplus and Drought Management Plan (WSDM Plan), which guides water supply operations in both surplus and shortage. In the WSDM Plan, MET outlines shortage actions in various stages, including actions needed to address up to a 50 percent reduction in MET's water supplies (as required by the Act). During shortages, MET will meet demands by relying on storage. In the stages of severe or extreme shortage, MET will take additional actions, such as issuing calls for public conservation, considering curtailment of interim agricultural deliveries, exercising water transfer options, or purchasing water on the open market. Through this management process, MET fully expects to be 100 percent reliable in meeting its demands throughout 2030 (UWMP 2005).

The UWMP outlines MET's Emergency Storage Requirements, which address actions necessary for catastrophic interruptions in water supply. The requirements are based on the potential of a natural disaster (e.g., an earthquake) damaging the imported water supply aqueducts, causing a 100 percent reduction in MET's water supply for six months (a greater period than required by the Act). Given this scenario, the emergency plan outlines a 25 percent cutback to member agencies and use of water stored in subsurface reservoirs and ground water basins under MET's interruptible program, as well as emergency reservoirs and other available storage. With the exception of few locations, MET can deliver water throughout its service area via gravity, which eliminates the dependence on power sources. Also included is a preliminary analysis of the potential effects of extensive levee failure in the San Francisco Bay Delta (which supplies water to the SWP). For the scenarios evaluated, the analysis showed that MET would be able to continue to provide water to its member agencies in the case of emergency interruption of water supply.

The UWMP also discusses other supply reliability risks, such as water quality issues and climate change. These types of supply risks are more uncertain and therefore are addressed more broadly. The amount of water at risk of potential water quality issues (e.g., contamination) is unknown. The IRP process includes a plan to identify a contingency supply buffer to address potential threats to water quality. Although the long-term effects of climate change are uncertain, MET is at the forefront of the issue by integrating climate change concerns into its IRP. The water supply planning portfolio for adapting to climate change includes conservation, groundwater conjunctive use, and storage and conveyance facilities.

SDCWA 2005 Urban Water Management Plan; SDCWA Drought Management Plan

In 2005, SDCWA also updated its UWMP, which identifies a variety of water resources projected to be developed through the year 2030 to ensure long-term water supply reliability for the region (SDCWA 2005). SDCWA's UWMP includes the required water supply reliability planning process (as described above for MET) to ensure a long-term water supply for its member agencies and address water shortage and catastrophic interruptions in supply.

According to SDCWA, today, up to 90 percent of SDCWA's water supply is imported from the Colorado River and Northern California by MET. The remainder comes from local water sources including groundwater, local surface water, recycled water, seawater desalination and conservation. MET has ensured long-term reliability through its UWMP and IRP planning process. In addition to imported water, SDCWA identifies supply goals for supplemental sources of water for the year 2030, including groundwater, recycled water, and seawater desalination. Through its imported water supply and identified supplemental water sources, SDCWA plans to meet the County's needs through the year 2030 (SDCWA 2005). Table 4.6-2 summarizes SDCWA's anticipated water supply sources and anticipated demand for the year 2030 (normal year estimate).

In the event of a drought, SDCWA does not anticipate a water shortage, assuming full implementation of MET's IRP process. However, SDCWA acknowledges that there is always some level of uncertainty associated with imported water, so it has developed a Drought Management Plan (DMP) to address potential supply shortages due to drought conditions (SDCWA 2005). Similar to MET's plan, the DMP identifies a series of actions to respond to different stages of drought, such as augmentation of supplies, promoting public conservation, and mandatory cutbacks of up to 50 percent in cases of severe drought.

SDCWA addresses the potential for a catastrophic water shortage through its Emergency Storage Project (ESP). The ESP is based on the premise that an earthquake or other disaster would eliminate connections to MET sources for up to six months. Under that scenario, a system of upgraded reservoirs, new connecting pipelines, and other facilities would work together to deliver water to SDCWA member agencies. ESP's include the completed Olivenhain Dam and the Olivenhain Pipeline as well as facilities currently under construction such as Lake Hodges Projects, San Vicente Pipeline, and San Vicente Dam Raise. The ESP is based on a 75 percent level of service to member agencies, as well as full implementation of water conservation BMPs. Elements of the ESP have been completed and some are currently under construction. The entire system is anticipated to be completed by 2012. When completed, the ESP will provide enough water to meet the County's needs through at least 2030 (SDCWA 2005).

SDCWA Regional Water Facilities Master Plan

SDCWA completed a Regional Water Facilities Master Plan (RWFMP) process in 2004 to define the regional facilities needed to meet water demands within SDCWA's service area through the year 2030. The RWFMP also evaluates water supply reliability and emergency storage to ensure a reliable and safe water supply for the service area. The RWFMP includes plans for expanding and rehabilitating existing facilities, as well as constructing new facilities (e.g., distribution pipelines, reservoirs, pump stations, WWTPs) to meet

anticipated demand. The RWFMP also includes potential regional recycled water and seawater desalting facilities.

Regional Water Conservation and the California Urban Water Conservation Council's BMPs

The California Urban Water Conservation Council (CUWCC) was formed in 1991 through a MOU Regarding Urban Water Conservation in California. The urban BMPs for water conservation included in the MOU are intended to reduce California's long-term urban water demands. Both MET and SDCWA are signatory parties of the MOU, and have pledged to make a good faith attempt to implement the CUWCC urban water conservation BMPs. Table 4.6-3 provides an overview of the CUWCC urban water conservation BMPs. Most SDCWA member agencies are signatories to the MOU and are required to submit biennial BMP reports to show compliance with the appropriate BMPs (SDCWA 2005).

Valley Center Municipal Water District Water Shortage Response Program

In response to the SDCWA Model Drought Response Ordinance, adopted in March 2008, the VCMWD created its own drought response plan containing items specifically related to responses to new development at differing drought level conditions:

- Level 1, Watch Condition—Availability letters are still issued, but with qualifications concerning the uncertainty of the future water supply availability and its impact on the ability of the District to provide actual water service in the future.
- Level 2, Alert Condition—No new statements of availability shall be issued unless the applicant provides substantial evidence of an enforceable commitment that the net water demands for the project from the District will be off-set prior to the provision of any new water meter(s) for the project.
- Level 3, Critical Condition—The same requirements as Level 2; however only existing (not new) annexations will be considered with the appropriate off-set.
- Level 4, Emergency Condition—any and all development and annexation processing with associated direct water usage shall be terminated and no new temporary or permanent potable water meters shall be provided under any circumstance until the Level 4 condition abates, except for those meters for projects required to protect public health and safety.

Rainbow Municipal Water District Drought Response Ordinance

The RMWD Drought Response Ordinance, similarly contains items related to new development as follows:

- Level 1, Watch Condition—No conditions apply.
- Level 2, Alert Condition—No new services and no statements of immediate ability to serve or provide potable water service (such as, will serve letters, certificates, or letters of availability) unless the applicant provides substantial evidence of an enforceable binding commitment that water demands for the

project will be off-set prior to the provision of a new water meter. Annexation considerations are suspended.

- Level 3, Critical Condition—Same requirements as Level 2.
- Level 4, Emergency Condition—Same requirements as Level 3.

Present Water Supply Planning and Discussion of Current Water Supply

On a monthly basis, MET provides to its Board an update on the regional water supply and demand conditions and potential actions under the Water Surplus and Drought Management Plan (WSDM Plan). The WSDM Plan provides the overall strategy for managing Metropolitan's resources to meet the range of estimated demands for the calendar year. The monthly report provides the status of its supplies from the State Water Project, Colorado River, MET storage, and storage/exchange programs to determine how to meet potential demands. There have been several water supply reliability challenges including the federal and state actions in the Delta area to protect certain fish species. These actions have reduced State Water Project pumping, and may do so further. Additionally, state storage reservoirs are below normal storage levels due to two consecutive years of dry conditions. In response to these concerns, in April 2008 MET developed with its member agencies a Five-Year Supply Plan to identify specific resource and conservation actions over the following five years to manage water deliveries under continued drought conditions and court-ordered restrictions. This Five-Year Supply Plan is in addition to MET's Integrated Water Resources Plan, to be revised in 2009, which addresses broader challenges associated with water supply such as population growth, increase competition for low-cost water supplies, variable weather conditions, and increased environmental regulation for clean and safe drinking water. The WSDM Plan provides an update on MET's Five-Year Supply Plan. Detailed background information on the State Water Project litigation and the California Plan and Quantification Settlement Agreement regarding Colorado River water use can be found in MET's *Appendix A,* attached to their January 15, 2009 Official Statement for $200,000,000 Water Revenue Bonds.

The Five-Year Supply Plan has identified new supplies for MET to consider in addition to the State Water Project and Colorado River on which it substantially relies. MET has demonstrated on a monthly basis in report to their Board, that firm demand on MET are able to be met by these sources along with utilization of its Water Surplus Drought Management Storage Portfolio.

The monthly reports to the Board provide an update on the impact that these items have on the water supply and strategic plan to meet demands, including discussion on the Department of Water Resources Snow Pack Surveys and Table A allocations. MET's most recent assessment of the current water supply condition can be found in the April 15, 2009 MET Board Action request from the Water Planning and Stewardship Committee, the April 13, 2009 MET Water Resources Management Semi-annual Report on State Water Project Initiatives, and the April 23, 2009 MET Water Resources Management information update on *Water Surplus and Drought Management Plan on water supply and demand as of April 23, 2009.* All of these items can be found at MET's website under the Board of Directors Board Letter Archive section.

For calendar year 2008, MET's State Water Project allocation was 35 percent of its contracted-for amount due to the critically dry conditions in the northern Sierra Mountains and projected impacts of court-ordered restrictions (e.g., reducing pumping in the Delta area due to the delta smelt). In October 2008, the initial allocation for 2009 was announced to be 15 percent. On April 15, 2009, the Department of Water Resources announced that the allocation would be 30 percent and most recently on May 20, 2009 the Department of Water Resources increased the Table A allocation amount to 40%. This increase in State Water Project allocation decreased the quantity of water taken from the WSDW Storage Actions to meet MET's demands.

The SDCWA carries through activities at the MET level into reports to their Board. In April 2009, SDCWA staff provided to the Board the quarterly update on both the State Water Project and the Colorado River including the Water Authority's transfer with Imperial Irrigation District, the All-American and Coachella Canal Lining projects, and potential Colorado River supply augmentation projects. Key discussion can also be found in the April 15, 2009 information item on the *Fiscal Year 2010 Available Core Supplies* and April 15, 2009 action item background on *Approval of Shortage Management Actions in Response to Supply Cutbacks from Metropolitan Water District in Fiscal Year 2010*.

In response to the present water conditions, on April 23, 2009 the SDCWA declared Stage 3 Mandatory Cutbacks in water use of 8% and declared a drought response "Drought Alert" Level 2 Condition. The April 15, 2009 action item background on *Approval of Shortage Management Actions in Response to Supply Cutbacks from Metropolitan Water District in Fiscal Year 2010* provided the rationale for the 8% mandatory cutback in response to the potential water shortfall projected for 2010 (see Table 4.6-4 below). Within this analysis, the SDCWA assumed a supply from MET of 380,000 acre-feet for FY2010. Since that time, the SDCWA has increased the amount of supply it anticipates to receive from MET for FY2010 to 410,381 acre-feet (from the May 20, 2009 information item on *Drought Management Implementation Report)*. If all other elements of the calculation remained the same, the estimated regional shortfall would be approximately 3%. Additionally, note that the calculation of 410,381 acre-feet is based on MET's 30% Table A allocation rather than the most recent 50 percent Table A allocation (California Department of Water Resources, State Water Project Analysis Office, Water Deliveries)..

RMWD and VCMWD declared a Level 2 Drought in April 2009 and May 2009, respectively.

Municipal Water Districts

The Proposed Project is partially within the SLRMWD and the remaining portion is not within the jurisdiction of any MWD, as shown on Figure 1-12. Although the Proposed Project is partially within the SLRMWD, however, the SLRMWD does not have legal authority to provide retail water or wastewater service. Although there are three MWDs in the area, retail water and/or wastewater service in the vicinity of the Proposed Project area is provided by only two MWDs:

- Rainbow Municipal Water District
- Valley Center Municipal Water District

The provision of water and sewer service to the Proposed Project would require modification of the existing Sphere of Influence (SOI) boundaries for the districts in the Proposed Project area as described in Chapter 1. A description of each MWD is provided below.

San Luis Rey Municipal Water District (SLRMWD)

The southern portion of the Project Site is located within the boundaries of the SLRMWD. The SLRMWD was formed on October 17, 1958, pursuant to the Municipal Water District Act of 1911 (California Water Code §§ 71000, *et seq.*). The SLRMWD encompasses approximately 3,000 acres along the San Luis Rey River Valley in northern San Diego County. The District is bounded on the west by I-15; on the east by the Pala Indian Reservation; on the north, west, and south by two member agencies of the SDCWA; RMWD to the north and west and VCMWD to the south.

The SLRMWD was formed with the principal mission to protect the groundwater that existing landowners pump from wells located in the San Luis Rey River Basin. The SLRMWD currently operates as a groundwater management agency, and does not provide retail water or wastewater services to any customers. There are currently no water or wastewater service providers within the SLRMWD boundary. All existing water use within the district is supplied by private wells accessing the subsurface flows of the San Luis Rey River. At this time the SLRMWD has no existing wastewater infrastructure to serve the Proposed Project. The SLRMWD is a participant in the LAFCO MSR/SOI study that will be prepared for the Bonsall and Pala Hydrological Subareas.

Rainbow Municipal Water District (RMWD)

The Project Site is outside but adjacent to the boundaries of the RMWD, which provides water and wastewater services to properties within its boundary. The RMWD was established in 1953 through a conglomeration of several mutual water companies under the Municipal Water District Act of 1911. The RMWD's 51,200-acre service area is located in northern San Diego County. It is approximately 40 miles north of the city of San Diego and 17 miles east of the Pacific Ocean. The northern boundary of the RMWD is coterminous with the San Diego/Riverside County border. The RMWD includes the unincorporated communities of Rainbow and Bonsall, as well as portions of Pala and Fallbrook.

The RMWD became a member of the SDCWA and MET in the same year to acquire the right to purchase and distribute imported water. The RMWD obtains 100 percent of its water supply from the SDCWA aqueduct system. The RMWD is a participant in the LAFCO MSR/SOI study that will be prepared for the Bonsall and Pala Hydrological Subareas.

The RMWD provides wastewater service within the unincorporated communities of Rainbow, Bonsall, and portions of Fallbrook and Pala. Wastewater generated within the RMWD is currently collected and subsequently transferred to the City of Oceanside through a trunk sewer main extending west along SR-76. This approximately 11-mile conveyance system consists of gravity pipelines, two lift stations, and force mains to transfer wastewater to the point of connection with the City of Oceanside's collection system located at the intersection of Stallion Drive and North River Road. The wastewater is treated at the San Luis Rey Wastewater Treatment Plant and discharged

through an ocean outfall. The City of Oceanside currently is expanding its treatment facilities and may provide the district an additional 0.5 mgd of capacity. The RMWD has updated its Water Master Plan to evaluate preferred options, if any, for extending water service to the Proposed Project.

Valley Center Municipal Water District (VCMWD)

The Project Site is approximately one-half mile north of the existing northern boundary of the VCMWD. The VCMWD was founded on July 12, 1954, pursuant to the Municipal Water District Act of 1911. The VCMWD is a member agency of the SDCWA and obtains 100 percent of its supply from the SDCWA aqueduct system. The VCMWD encompasses approximately 64,253 acres (100 square miles), 59 percent of which currently receives water services. The VCMWD is bounded on the west by I-15, on the south by the city of Escondido and unincorporated areas, and to the north by the YMWD, Pala Indian Reservation, and the SLRMWD. The VCMWD provides water and sewer services to its domestic, agricultural, and commercial customers, with most of its water (86 percent) being used to irrigate citrus and avocado groves. The VCMWD also provides approximately 2,600 sewer connections that send wastewater to three VCMWD treatment facilities, none of which are adjacent to the Project Site. The VCMWD is a participant in the LAFCO MSR/SOI study that will be prepared for the Bonsall and Pala Hydrological Subareas.

4.6.3 Guidelines for the Determination of Significance

For the purpose of this EIR, the basis for the determination of the significance is the County of San Diego General Plan and CEQA Guidelines regarding adequate levels of service.

A project will have a significant adverse environmental effect related to utilities and service systems if:

1. The project's demand for potable water cannot be met with current projected water supplies and/or the demand for services requires significant alterations to existing water pipelines and infrastructure needed to convey potable water to the site.

2. The wastewater generated from the project cannot be treated by an existing or proposed facility, and/or the project requires significant alterations to existing wastewater systems and infrastructure.

4.6.4 Analysis of Project Effects and Determination as to Significance

Potable Water

A significant impact would occur if the demand for potable water cannot be met with current projected water supplies and/or the demand for services requires significant alterations to existing water pipelines and infrastructure needed to convey potable water to the Project Site.

As required by Senate Bills 610 and 221, a WSA&V Report was prepared to assess projected water demands for the Proposed Project. The water demands for the Proposed Project are summarized in Table 4.6-5. The water totals shown in Table 4.6-

56 do not account for water conservation measures that would be required to be implemented by the Proposed Project. Therefore, these totals represent a worst case scenario of estimated water demands. Additionally, construction of the school site is the preferred option over the development of 42 additional single-family residential units which could replace the school site. The school is estimated to generate a higher water demand and was used to calculate the total projected water demand for the development. This ensures that the planned water facilities are adequate for either land use condition.

The Proposed Project will implement conservation measures and utilize non-potable water for irrigation purposes to reduce its potable water demand. In addition to reducing potable water demand through the above actions, the Proposed Project will further reduce its water demand by participating in offset programs or projects offered by the SDCWA or a MWD resulting in a net zero water demand on Water Authority supplies. The specific offset program(s) will be identified during the Sphere of Influence update process which will occur after approval of the Proposed Project.

Water Supply

As previously described, the Project Site would require annexation into a MWD for water service. LAFCO will conduct a Municipal Services Review (MSR) and SOI Update to determine the appropriate provider of water to the area which includes the Proposed Project. Specifically, LAFCO will examine the suitability of RMWD, SLRMWD, and VCMWD as potential service providers, and then provide a recommendation. Ultimately, the decision to provide service would be determined by the Board of Directors of the providing agency. Upon approval, annexation of the Proposed Project to a MWD will be required.

Regardless of the MWD selected, the source of water to the Project Site will be imported water via the SDCWA aqueducts. Therefore, annexation of the Project Site into the SDCWA is necessary in order for the Proposed Project to obtain water service. Generally, the SDCWA uses SANDAG regional growth forecasts to calculate future demands within its service areas. This ordinarily provides for consistency between San Diego County planning efforts and SDCWA demand projections, in an attempt to ensure that adequate supplies are being planned for existing and future water uses. In 2007, the SDCWA updated its *2005 Urban Water Management Plan* (UWMP 2007) to include the projected demands of areas which were pending annexation to the SDCWA. The areas pending annexation were included to provide a more comprehensive analysis of future water demands, as these areas were not included in the SANDAG population projections. The Proposed Project was explicitly identified as an area proposing annexation to the SDCWA (UWMP 2007, Page 2-4, Table 2-2, footnote 3). It states in its normal single dry and multiple dry year assessments that, “If the SDCWA and member agency supplies are developed as planned, along with implementation of MET’s IRP, no shortages are anticipated within the SDCWA’s service area in a normal year through 2030.” The SDCWA state the same on later pages regarding the single dry and multiple dry year assessments (UWMP 2007, Pages 8-2 – 8-3). Therefore, the Proposed Project’s water demands have been accounted for and included in the SDCWA’s long-term water planning. However since 2005, the following unforeseen water supply reliability challenges have occurred, resulting in Metropolitan's IRP not being developed as planned:

- A federal court ruling in 2007 on the delta smelt may result in as much as a 40% reduction of water from the State Water Project for Southern California.

- The State of California is experiencing a multi-year drought, and MET and the SDCWA are on Drought Level 2 Alert. This is true of most of the SDCWA member agencies as well. However, the latest data on water storage volumes in the state's major reservoirs shows an increase in storage. As of July 31, 2010, the historical average percent of total storage for major reservoirs in California was 75.9 percent. In 2009, the percent of total storage was 55.5 percent. In 2010, this figure has increased to 61.0 percent. (California Department of Water Resources, California Data Exchange Center, Summary of Storage in Major Reservoirs).

- Colorado River deliveries were reduced as the watershed continues to recover from record drought. Compared to 2009, however, the 2010 figures look better. The following is a listing of MET's percent allocation of Colorado River Supply for January through July of 2009 and 2010*:

Month	2009	2010
January	69	79
February	69	79
March	73	85
April	76	89
May	78	89
June	86	91
July	86	91

* The Metropolitan Water District of Southern California General Manager's Monthly Activity Report

The SDCWA is mandated by law to update their UWMP in 2010 (although some SDCWA members have received an extension until July 2011) in which it will be required to take these changed circumstances into account. In the interim, the County will require that these changed circumstances be included to fully analyze, pursuant to CEQA, whether the project has a sufficient water supply available. The EIR must explain, how, given these factors, water is still available.

Water demands for the Proposed Project are based on the *Water Supply Assessment and Verification Report* (2009) included as Attachment N-2 and summarized in Table 4.6-5. This table represents the maximum potable water demand for the Proposed Project based on typical demand factors (water use rates) for the proposed land use type. As discussed above, the Proposed Project water demand was included in the 2007 UWMP (UWMP 2007, Page 2-4, Table 2-2, footnote 3), estimated in five-year increments over a 20-year period, as a project to be served by the SLRMWD, whose un-annexed area option was one of the areas proposing annexation at the time the 2007 *UWMP* was developed. Therefore, the SDCWA included the water demands forecasted for the Proposed Project because it was one of the areas/projects to be provided water within the SLRMWD annexation. The 2007 UWMP found that the projected potable water supply will meet the projected potable water demand of 715,450 acre-feet per year (af/y) in 2010 to 829,030 (af/y) in 2030. Based on dry year forecasts, the projected water supply will also meet the projected water demand during single and multiple dry year scenarios.

In response to the changed conditions discussed above, the SDCWA is implementing its DMP in order to manage current short term supply conditions. MET is also implementing its WSDM plan and WSAP. To plan for long term supply reliability, the SDCWA continues to implement its diversification strategy, will participate in the update of MET's IRP and update its own UMWP in 2010 to reflect any changed supply conditions.

The findings of the 2007 UWMP as verified by the WSA&V state that, independent of the LAFCO determination of the ultimate water service provider, an adequate supply of water is available from the SDCWA to serve the Proposed Project's demands in normal and dry year forecasts. Additionally, in actual development, the Proposed Project will propose to implement conservation measures and utilize non-potable water for irrigation purposes to reduce its potable water demand. As discussed in Chapter 4.2, above, approximately 140.2 af/yr of on-site groundwater could supply a portion of the non-potable demands. Examples of water conservation features are discussed in the WSA&V. Regardless of the reduced water demand these actions yield, the Proposed Project will further reduce its water demand by developing or participating in off-set programs which result in a net zero water demand on SDCWA water supplies. These off-set projects or programs could possibly be offered by a MWD; however, even if these agency programs do not exist, the Proposed Project will off-set its water demand such that the Proposed Project will have a net zero demand on SDCWA water supplies.

Off-set programs and projects would generally fall into three categories: potable water conservation, expanded use of recycled water, and supply development. Examples of conservation programs include utilization of low-flush toilets, low-use fixtures, and weather-based irrigation controllers (details of a project sponsored exchange program would be decided by the MWD). Infrastructure could be funded by the Proposed Project, which would increase recycled water use within a MWD. A recent example is a project in the City of San Diego which extended an existing recycled water line to a school site. In this case, the project financed and constructed the improvement to provide recycled water in order to replace the use of potable water. The third off-set program type involves the development of new supply. This could include financially participating in projects such as the Oceanside or Sweetwater Desalting plants, which treat brackish groundwater and ocean water for potable water supply. The specific off-set program(s) will be identified during the sphere of influence update process, which will occur after approval of the Proposed Project. Should the MWD select the off-set program where recycled water improvements are required, infrastructure would be placed within existing roadways to minimize potential impacts associated with construction. The implementation of the off-set program shall be a condition of annexation into the SDCWA and MWD prior to the delivery of water. Therefore, impacts associated with potable water supply would be **less than significant**.

Recycled Water Use

The Proposed Project will use recycled water for on-site irrigation, as a means of reducing its need for imported water. Wastewater from the Proposed Project will be tertiary treated to recycled water quality standards at the Proposed Project's on-site WWTP, and will be used on-site for irrigation of the Proposed Project's common area landscaping, HOA maintained slopes, park, school fields, and irrigation of the on-site retained citrus and avocado groves. The WWTP will produce up to 0.225 mgd of recycled water. As detailed in the Water Study, recycled water use will reduce the Proposed Project's potable water demand by 25 percent.

Water Provider and Infrastructure

The appropriate provider of water services will be determined by LAFCO. Water facilities needed to serve the Proposed Project would vary depending on which MWD is selected. Each of the alternatives to be considered, along with the facilities needed, is described below.

Valley Center Municipal Water District

The SOI Update report evaluates the potential for the VCMWD to extend water and wastewater services to the areas that are currently within the boundaries of the SLRMWD. This would be the preferred scenario for the Proposed Project.

As part of this alternative, the VCMWD SOI would be revised to include the Proposed Project, including the northern portion of the Project Site, which currently is not within any of the three MWDs. Expansion of the VCMWD would require the following:

1. LAFCO approval of SOI and boundary expansion

2. LAFCO approval of annexation, attachment and detachment from SLRMWD

3. Annexation of planning areas to SDCWA and MET

4. Updating of the VCMWD's planning documents, such as CIP, Master Plan, and Urban Water Management Plan

5. Infrastructure development, as shown on Figures 1-13 and 1-14 and Table 1-3**.**

Based on projected demands and phasing considerations, the recommended water supply facilities for the VCMWD include:

- 2.5 cf/s flow control facilities

- 12-inch diameter water supply pipelines from aqueduct(s)

- 5 million gallons of treated water storage reservoir

- On-site pressure reducing station

The treated water storage reservoir will be sited at sufficient elevation to allow gravity service from the storage reservoir to the zones served, without need for pumping. The water storage reservoir would be located on the southern portion of the eastern ridgeline of the Project Site, as shown in Figure 1-5.

San Luis Rey Municipal Water District

The southern portion of the Project Site is located within the boundaries of the SLRMWD. Should this option be selected, the following actions would need to be implemented:

1. LAFCO activation of SLRMWD latent powers for water for that portion of the district

2. LAFCO approval of SOI and boundary expansions for the project area outside of SLRMWD boundaries

3. The SLRMWD becoming a member agency of SDCWA and MET, and annexation of the SLRMWD jurisdictional lands to SDCWA and MET

4. Annexation of planning areas into SDCWA and MET

5. Development of water infrastructure. Infrastructure required for SLRMWD would be the same as that described above for the VCMWD

Rainbow Municipal Water District

The Project Site is outside of, but adjacent to, the boundaries of the RMWD. Should this option be implemented, the following actions would be required:

1. LAFCO approval of SOI boundary expansion

2. LAFCO approval of annexation, attachment and detachment from the SLRMWD

3. Annexation of planning areas to RMWD, SDCWA, and MET

4. Capacity increases of the existing RMWD facilities

5. Participation in the construction of extensive water infrastructure to serve the planning areas, as no infrastructure within the planning areas currently exists

The RMWD could provide water service to the Proposed Project site by utilizing RMWD's existing aqueduct turnouts and connecting the planning areas to the RMWD's existing distribution system. Implementation would require improvements to pipelines, transmission mains, and pressure reducing stations. Storage tanks would be developed for operational, fire flow, and emergency needs.

If water is supplied by the RMWD, the required facilities would consist of new transmission pipelines connecting to Rainbow's existing transmission pipelines, and may include the same water storage tanks. Unlike the SLRMWD or VCMWD options, service supplied by the RMWD would not require new connections to the First or Second aqueducts. Instead, water would be supplied to the development from the existing RMWD facilities. Should the RMWD option be chosen, water could be supplied to the Project Site via connection to one of three nearby connection points (see Figure 1-14). Details of the components are outlined in Chapter 1, Project Description.

Regardless of the MWD selected, the Proposed Project has included the construction of all necessary facilities for the provision of water service as part of the project design. The required facilities for each MWD are analyzed within the chapters of the EIR and impacts, if any, have been identified. There would be no outstanding need for additional alterations to pipelines or infrastructure. Therefore, impacts associated with the

extension of facilities for water supply and service is **less than significant**. Additionally, the Proposed Project is in compliance with Board Policy I-84 requiring the submittal of a water service commitment letter. This is due to the fact that after Board of Supervisors' approval of the Proposed Project applications, LAFCO will consider SOI changes that will identify the most logical and efficient MWD to provide water and recycled water services to the Project Site. The conditions of project approval will identify this process and ensure that the process occurs. Therefore, the Proposed Project will comply with the requirement to provide service commitment letters after project approval, specifically the forms will be required prior to recordation of a Final Map and issuance of building permits.

All on and off-site impacts associated with the construction of the preferred alignment of water supply facilities related to individual resource areas are detailed throughout Chapters 2 and 3, as follows: Aesthetics (Chapter 2.1), Air Quality (Chapter 2.2), Transportation/Traffic (Chapter 2.3), Biology (Chapter 3.1), Cultural Resources (Chapter 3.3), Noise (Chapter 3.4), and Hazards (Chapter 3.5). Should the Proposed Project be required to construct the alternative alignment, supplemental environmental review will be required.

Wastewater

A significant impact would occur if the wastewater generated from the Proposed Project cannot be treated by an existing or proposed facility, and/or the Proposed Project requires significant alterations to existing wastewater systems and infrastructure.

Wastewater Generation

The Proposed Project is anticipated to generate approximately 0.225 mgd of wastewater. This flow is based on a wastewater generation estimate of 250 gallons per day per EDU as used by the VCMWD and RMWD.

Wastewater Provider and Infrastructure

Project plans call for LAFCO to determine which of the three MWDs (VCMWD, SLRMWD, or RMWD) can provide efficient and cost-effective services to the Proposed Project. Annexation of the entire Project Site would be required if either the VCMWD or RMWD is selected. If the SLRMWD is identified as the service provider, only the northern portion of the Project Site would require annexation. Additionally, if SLRMWD was selected, LAFCO would have to activate its latent powers for sewer service. In addition, after LAFCO's SOI determination, wastewater facilities will be constructed. The Proposed Project includes an on-site WWTP, comprised of collection infrastructure, a new 0.225-mgd WWTP, treated water disposal, and recycled water infrastructure located on-site. Details of the proposed on-site WWTP and associated infrastructure are described in Chapter 1, Project Description.

The Proposed Project is in compliance with both Policy 1.2 and 1.3 of the Public Facility Element of the General Plan as well as Board Policy I-84. These policies require reasonable expectation that wastewater treatment and disposal will be available and requires conditions be placed on project approval to assure that all requirements are met and commitments secured. As discussed above, after approval of the Proposed Project, LAFCO will act to identify the most logical and efficient MWD to provide wastewater

services to the Project Site. Therefore, the Proposed Project will comply with the requirement to provide a service commitment letter from the selected wastewater provider. Such will be prior to Final Map recordation and issuance of building permits.

Public Facility Element Policy 2.1 and Policy I-78 relate to the location, creation and operation of the proposed WWTP. The location and design of proposed WWTP for the Proposed Project must be approved and be consistent with the LAFCO selected MWD's reclaimed water master plan. With approval from the MWD, the Proposed Project would be consistent with these policies.

Because the proposed on-site WWTP meets current estimated wastewater generation and conforms to relevant policies, impacts associated with wastewater generation and treatment would be **less than significant**. All on and off-site impacts associated with the extension of water facilities related to individual resource areas are detailed throughout Chapters 2 and 3, as follows: Aesthetics (Chapter 2.1), Air Quality (Chapter 2.2), Transportation/Traffic (Chapter 2.3), Biology (Chapter 3.1), Cultural Resources (Chapter 3.3), Noise (Chapter 3.4), and Hazards (Chapter 3.5).

4.6.5 Cumulative Impact Analysis

A cumulative demand for water and wastewater services exists in the project area due to planned development projects. Projections were developed based on the current San Diego County General Plan and the County's Draft General Plan Update. Projected water demand would total 0.48 mgd and wastewater flow would total 0.225 mgd. The WSA&V Report prepared for the Proposed Project concludes that there is sufficient water supply to serve the Proposed Project and the existing and other certain planned projects in the SDCWA area(s). This conclusion was confirmed by the Independent Review of Meadowood Water Supply Assessment prepared by ICF International in May 2010. Regarding wastewater, in order to assure that privately-proposed wastewater treatment plants would meet the anticipated needs of the project and the subregion, the County of San Diego Fallbrook Projects-Feasibility Study ("Feasibility Study") was completed. The Feasibility Study is included in the EIR as Appendix N-4. The Feasibility Study primarily reviewed the service demand for the Proposed Project in addition to that of the adjacent the Campus Park West project and other areas in the direct vicinity (Feasibility Study, Figure 1). While the Feasibility Study concluded this area would be best served by a regional WWTP, it acknowledged that if one project is not approved or not built, a regional WWTP may not be required. Therefore, it is necessary that the Proposed Project would include an individual project-serving WWTP.

The Feasibility Study concluded that the Campus Park West project site would be the most suitable location for a regional WWTP. The applicant has agreed to make the necessary arrangements to ensure that wastewater is collected and treated at a regional facility in order to provide a coordinated, planned approach to wastewater service for the region. If and when such connection to a regional facility is feasible, the individual WWTP that is currently included as a part of the Proposed Project would be decommissioned and the Proposed Project would connect to the regional WWTP.

An impact is cumulatively considerable if the incremental effect of the project is considerable when viewed in connection with the effects of past projects, other current projects, and probable future projects. (14 Cal Code Regs §15065(a)(3)). While the absence of wastewater service in the project area may render a significant cumulative impact to wastewater systems and infrastructure, the project's contribution to that

significant effect is not cumulatively considerable. The Proposed Project would construct and maintain a WWTP to process the wastewater generated only from the project. The Proposed Project would not generate wastewater that would require treatment other than by the Proposed Project's WWTP. Therefore, the Proposed Project would not make a cumulatively considerable contribution to impacts associated with wastewater treatment and disposal.

4.6.6 Conclusions

Implementation of the Proposed Project requires annexation into one of three MWD that can potentially provide water and wastewater services. Upon the conclusion of the LAFCO MSR and SOI Update, an appropriate MWD will be selected to serve the Project Site. Because there is adequate water supply to serve the Proposed Project as determined by the WSA&V Report, and the Project design includes construction of all necessary facilities for provision of water service, direct and cumulative impacts associated with the extension of facilities for water supply and service are less than significant.

The Proposed Project will create a need for wastewater treatment services in an area not completely covered by a wastewater service district. The Proposed Project includes the construction of a WWTP and associated facilities which will have the capacity to serve the Proposed Project. Therefore, impacts associated with wastewater generation and treatment would be less than significant.

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TABLE 4.6-1
METROPOLITAN WATER SUPPLY CAPABILITY AND PROJECTED DEMANDS
(NORMAL YEAR)

Type of Supply	2030 Forecast (AF/yr)
Current Supplies	2,449,000
Supplies Under Development	205,000
Total MET Supply Capability	**2,654,000**
Firm Demands on MET	**2,246,000**
Potential Reserve and Replenishment Supplies	408,000

Source: Metropolitan 2005

TABLE 4.6-2
SDCWA WATER SUPPLY CAPABILITY AND PROJECTED DEMANDS
(NORMAL YEAR)

Type of Supply	2030 Forecast (AF/yr)
SDCWA Supplies (desalinated ocean water, transfers, and canal lining projects)	333,700
Member Agency Supplies (surface water, recycling, and groundwater)	138,408
MET Water District Supplies	356,922
Total Projected Supplies	829,030
Total Estimated Demands (with conservation)	**829,030**

Source: SDCWA 2005

TABLE 4.6-3
CALIFORNIA URBAN WATER CONSERVATION BEST MANAGEMENT PRACTICES AND SDCWA CONSERVATION PROGRAMS

BMP Number	BMP Description	Conservation Program (SDCWA)	Applicable to	
			Member Agencies	Metropolitan/ SDCWA
1	Residential Water Surveys	Residential Survey Program	Yes	No
2	Residential Plumbing Retrofits	Showerhead distribution	Yes	No
3	System Water Audits, Leak Detection	SDCWA and member agencies independently operate separate system audits	Yes	Yes
4	Metering and Commodity Rates	Member agencies operate	Yes	No
5	Large Landscape Audits	• Commercial Landscape Incentive Program • Landscape Assistance Program for Business and Home • Protector Del Agua (Spanish Language Commercial Landscape Incentive Program)	Yes	No
6	High Efficiency Washing (HEW) Machines	Residential HEW Voucher Program	Yes	No
7	Public Information	• Media Coverage • Xeriscape Awards • Website • Water Conservation Literature	Yes	Yes
8	School Education	• Classroom Presentations • Splash Science Mobile Lab • Youth Merit Badge Program • Magic Show • Teaching Garden • Mini-grants of up to $250	Yes	Yes
9	Commercial, Industrial, & Institutional	• CII Voucher Program • Industrial Process Improvement Program	Yes	No
10	Wholesale Agency Assistance	Ongoing	No	Yes
11	Conservation Pricing	Member agencies operate	Yes	Yes
12	Conservation Coordinator	Water Resources staff	Yes	Yes
13	Water Waste Prohibition	Member agencies operate	Yes	No

TABLE 4.6-3
CALIFORNIA URBAN WATER CONSERVATION BEST MANAGEMENT PRACTICES AND SDCWA CONSERVATION PROGRAMS (CONTINUED)

BMP Number	BMP Description	Conservation Program (SDCWA)	Applicable to	
			Member Agencies	Metropolitan/ SDCWA
14	Residential Ultra Low Flow Toilet (ULFT) Replacements	Residential ULFT voucher program	Yes	No

Source: Metropolitan 2005; SDCWA 2005

TABLE 4.6-4
SUPPLY AND DEMAND ANALYSIS FOR FISCAL YEAR 2010[1]

	Estimated Quantity (AF)
Projected FY 2010 M&I Demands[2]	629,000
Core Supplies	
Estimated Metropolitan M&I Allocation	380,000 (TBD)[3]
QSA	155,000
Local Potable	30,000
Total Core Supplies	565,000
Estimated Regional Shortfall	*64,000 (10%)*
Dry-year Supplies	
2009 Transfer Supplies	16,000
Carry-over Supplies	0
Total Supplies	581,000
Estimated Regional Shortfall	48,000 (8%)

[1]Recycled water is not included in the analysis because it is not cutback in shortages

[2]FY 2010 projected demands based on escalated FY 07 demands, which are representative of dry-year demands prior to voluntary conservation.

[3]Final allocation quantity from Metropolitan is expected mid-May.

TABLE 4.6-5
SUMMARY OF WATER DEMANDS AND WATER DELIVERABLES

Land Use	Dwellings Units or Acres	Water Use Factor		Demand gpd	Demand mgd	Demand ac-ft/yr
Single-family	355	500	gpd/DU	177,500	0.178	199
Multi-family	489	400	gpd/DU	195,600	0.196	219
Elementary School [1]	11.1	2,000	gpd/ac	22,200	0.022	25
Neighborhood Park [1]	8.5	2,000	gpd/ac	17,000	0.017	19
HOA Areas [2]	58.9	2,000	gpd/ac	117,800	0.118	132
R.O.W. Irrigation [3]	9.22	2,000	gpd/ac	18,440	0.018	21
Retained Groves [1]	49.3	3,570	gpd/ac	176,001	0.176	197
Natural Open Space [1]	128.5	--		--	--	--
TOTAL				**724,541**	**0.725**	**812**

[1] Water Demand acreage based on Area Acreage

[2] Water Demand acreage based on total HOA Area Acreage within each planning area

[3] Water Demand acreage based on 20% of total Road Area Acreage within each planning area

Source: *Meadowood Water Study* (Dexter Wilson Engineering, Inc., April 2009)

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4.7 Agricultural Resources

This section is based on the agricultural technical report for the Proposed Project area (RECON 2010). The technical report is included as Appendix O to this EIR.

4.7.1 Existing Conditions

Regulatory Framework

San Diego County General Plan—The San Diego County General Plan (1996) is a comprehensive planning guide for unincorporated areas within the county. Related agricultural policies within the Regional Land Use, Open Space, and Conservation Elements, as well as the Fallbrook Community Plan, are summarized below:

1. **San Diego County General Plan, Regional Land Use Element**—The Regional Land Use Element regional categories for the Proposed Project area are SSA and RDA. The SSA designation is applied on an interim basis and for a specified period of time to areas in which development should be suspended or restricted pending completion of detailed review, study, or annexation to the County Water Authority. Lands within the RDA designation are outside the service boundaries of the County Water Authority. Areas within the RDA category are intended for agriculture or unimproved lands and remote pockets of residential development. The Proposed Project site is designated as an RDA since it is outside the County Water Authority boundary line. However, the Proposed Project would redesignate the entire site as CUDA.

2. **San Diego County General Plan, Open Space Element**—It is the intent of the County General Plan Open Space Element to encourage the establishment of additional agricultural preserves and open space easements based on a systematic review of appropriate areas. Agricultural preserves have been established throughout the county, which provide valuable open space. Procedures for acquiring agricultural preserves and open space easements are defined in San Diego County Board of Supervisors Policies I-38 and I-37, respectively.

3. **San Diego County General Plan, Conservation Element**—Policies and Action Programs related to agriculture in the Conservation Element include conducting an annual inventory of areas with high agricultural potential (including an assessment of the annual gain or loss or agricultural lands), amending the General Plan to include an Agriculture Element, identifying and implementing efforts to preserve agriculture (e.g., encouraging additional preserves and publicizing the wildlife habitat preserve provisions of the Williamson Act), and incorporating the most detailed soil data available in environmental analyses.

4. **Fallbrook Community Plan**—Fallbrook has a unique village atmosphere characterized primarily by low-density residential development and agriculture. The general goal is to perpetuate the existing rural charm and village atmosphere while accommodating growth in such a manner that it will complement the environment of Fallbrook. The Fallbrook Community Plan designates the Project Site as (21) Specific Plan and (18) Multiple Rural Use.

California Department of Conservation, Division of Land Resource Protection's Farmland Mapping and Monitoring Program (FMMP)—The goal of the Farmland Mapping and Monitoring Program (FMMP) is to provide consistent and impartial data to decision makers for use in assessing present status, reviewing trends, and planning for the future of California's agricultural land resources. FMMP produces *Important Farmland Maps*, which are a hybrid of resource quality (soils) and land use information. Agricultural lands are rated according to soil quality and irrigation status, with Important Farmland maps updated every two years based on aerial photograph review, computer mapping analysis, public input, and field reconnaissance.

California Land Conservation (Williamson) Act—The California Land Conservation Act of 1965, better known as the Williamson Act (California Administrative Code §51200 et. seq.), creates an arrangement whereby private landowners contract with counties and cities to voluntarily restrict land to agricultural and open space uses. In return, restricted parcels are assessed for property tax purposes at a rate consistent with their actual use, rather than potential market value, which saves landowners from 20 percent to 75 percent in property tax liability each year.

County Board of Supervisors Policy I-38—The County Board of Supervisors is committed to supporting and encouraging farming in San Diego County through establishment of partnerships with landowners and other stakeholders to identify, secure, and implement incentives that support the continuation of farming as a major industry in San Diego. Specific elements of this policy include criteria for preserve establishment (e.g., eligibility and size), terms (i.e., contract duration), renewal/non-renewal and cancellation, as well as provisions for implementing eminent domain and fee/tax schedules.

San Diego County Agricultural Enterprises and Consumer Information Ordinance, §63.401 et seq.—This ordinance recognizes that the commercial agricultural industry in the county of San Diego is a significant element of the County's economy and a valuable open space/greenbelt resource for San Diego County residents. To further this purpose, this ordinance recognizes that conflicts can occur between agriculture and certain other land uses; and it defines and limits the circumstances under which agricultural enterprise activities, operations, and facilities constitute a nuisance. The ordinance requires that sellers of real property in unincorporated areas inform prospective buyers that the property could potentially be near an agricultural operation and may experience related inconveniences, irritations, and discomforts.

LAFCO Definition of Agricultural Lands—"Agricultural lands" means land currently used for the purpose of producing an agricultural commodity for commercial purposes, land left fallow under a crop rotational program, or land enrolled in an agricultural subsidy or set-aside program. Based on this definition, the Project Site contains approximately 211.4 acres of "agricultural land" or approximately 54 percent of the total. The remainder of the site is generally disturbed with ornamental landscaping or contains riparian or native vegetation.

LAFCO Definition of Prime Agricultural Land—"Prime agricultural land" means an area of land, whether a single parcel or contiguous parcels, that has not been developed for a use other than an agricultural use and that meets any of the following

qualifications:Land that qualifies, if irrigated, for rating as class I or class II in the USDA Natural Resources Conservation Service land use capability classification, whether or not land is actually irrigated, provided that irrigation is feasible.

1. Land that qualifies for rating 80 through 100 Storie Index Rating.

2. Land that supports livestock used for the production of food and fiber and that has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture in the National Range and Pasture Handbook, Revision 1, December 2003.

3. Land planted with fruit or nut-bearing trees, vines, bushes, or crops that have a nonbearing period of less than five years and that will return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than four hundred dollars ($400) per acre.

4. Land that has returned from the production of unprocessed agricultural plant products an annual gross value of not less than four hundred dollars ($400) per acre for three of the previous five calendar years.

Based on criteria 1 and 2 listed above, the Project Site contains approximately 14.5 acres that meet the LAFCO definition of Prime Agricultural Land. Note that criteria 3 is not applicable and criteria 4 and 5 involve proprietary information that is currently not available. However, because the citrus and avocado groves are actively producing; it can be assumed that they are returning at least $400 per acre.

LAFCO Policy L-101—LAFCO's adopted procedures are required to consider how spheres of influence or changes of local governmental organization could affect open space and prime agricultural lands. According to Policy L-101, LAFCO should:

1. Discourage proposals that would convert prime agricultural or open space lands unless that action would not promote the planned, orderly, and efficient development of an area or the affected jurisdiction has identified all prime agricultural lands within its sphere of influence and adopted measures that would effectively preserve prime agricultural lands for agricultural use;.

2. Require pre-zoning of territory (city only) to identify areas subject to agricultural preservation/planned development; and

3. Adhere to San Diego LAFCO's adopted procedures to define agricultural and open space lands and to determine when a proposal may adversely affect such lands.

Existing On-site Agricultural Land Uses

Approximately 209.9 acres of the Project Site is currently and has historically been committed to various agricultural activities, with extensive areas supporting citrus and avocado groves occupying the lower and mid-portions of ridges and slopes in the central portion of the Project Site. These areas are irrigated and the trees are maintained by

periodic trimming, pruning, and replanting. The southern portion of the Project Site is used to grow seasonal crops (Figure 4.7-1).

Williamson Act Contract Lands

The Project Site is not currently nor has been historically within a designated Agricultural Preserve or Williamson Act Contract. A Williamson Act Contract occurs on the McCarthy Family Trust land (Williamson Act Contract #75-60; Preserve #15). This land is located approximately one mile southeast of the Project Site and south of the San Luis Rey River (Figure 4.7-2).

Surrounding Agricultural Land Uses

East of I-15 and north of SR-76, the surrounding land has been developed with citrus and avocado groves, and scattered rural homes. The Campus Park and Campus Park West projects are proposed immediately adjacent to the Project Site on the west. No agricultural operations have occurred within the Campus Park site for over 25 years (Draft Campus Park EIR, 2009). There is an agricultural operation (Fritz Family property) occupying most of the relatively flat canyon floor to the east of Rice Canyon Road, northeast of the Project Site; but is physically separated from the Project Site by the Monserate Mountain ridgeline. This operation primarily grows truck crops. Avocado groves exist to the east.

Pala Rey Ranch (McCarthy Family Trust Land) lies south of the Project Site, south of SR-76, and on both sides of Couser Canyon Road. The ranch headquarters is surrounded by a pasture holding beef cattle. The small roadside Pala Rey Ranch produce stand is located on the south side of SR-76 just east of Couser Canyon Road. The San Luis Rey Ranch (McCarthy Family Trust Land) is located to the east and west of Couser Canyon Road (see Figure 4.7-2).

Farmland Mapping and Monitoring Program

Figure 4.7-3 shows the most recent farmland data within the Project Site and surrounding area (CDC 2006). Table 4.7-1 depicts the approximate acreage for each of the FMMP categories within the Project Site and shows them as a percentage of the total Proposed Project area. According to the Important Farmlands Inventory Map, the Project Site includes the following farmland classifications: Unique Farmland, Prime Farmland, Farmland of Statewide Importance, Farmland of Local Importance, Grazing Land and Other Land.

TABLE 4.7-1
ACRES OF FMMP FARMLAND ON-SITE AND
AS A PERCENT OF THE ENTIRE PROJECT AREA

Category	Total Acres	Total Percent of Project Area
Farmland of Statewide Importance	55.7	14.3
Farmland of Local Importance	42.8	11.0
Grazing Land	136.3	35.0
Other Land	0.8	0.2
Prime Farmland	6.4	1.6
Unique Farmland	147.6	37.9
TOTAL	389.5	100.0

Crop Suitability

Crop suitability depends on a combination of soil, water, and climate resources. Based on an assessment of these resources in the agricultural report, it was concluded that portions of the Proposed Project area are suited to the production of avocados, citrus, and other frost-sensitive crops. These crops are suited to grow on the steep slopes that are less susceptible to the frost, which usually settles within the valleys. Citrus is less sensitive to frost and slow permeability than avocados, but is more difficult to manage on steeper slopes.

Agricultural Interface

Various agricultural land uses exist in the Proposed Project vicinity. The nearest agricultural operations consist primarily of citrus groves, avocado groves, and indoor and outdoor flower crops. These agricultural operations and uses likely perform all or some of the following: cultivation; plowing; spraying; pruning; harvesting; and drying; which may generate dust, smoke, noise, pests (i.e., insects, rodents, etc.), odor, and the use of pesticides.

4.7.2 Guidelines for the Determination of Significance

For the purpose of this EIR, the identified significance thresholds are based on criteria provided in Appendix G of the State CEQA Guidelines, the California Agricultural Land Evaluation and Site Assessment (LESA) Model, and existing planning/zoning documents and legislation (i.e. the County Zoning Ordinance and the Williamson Act).

A significant impact to agricultural resources would occur as a result of project implementation if:

1. The project will convert CDC designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use.

2. The project would place or establish non-permitted uses in existing agricultural zones or on Williamson Act contract lands.

3. The project will involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.

4. The project will conflict with any applicable plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

4.7.3 Analysis of Project Effects and Determination as to Significance

Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Guideline 1)

A project would result in a significant impact if it would convert CDC designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, to non-agricultural use.

Table 4.7-1 and Figure 4.7-3 show the acreages of Important Farmland Categories on-site. Approximately 136.3 acres of the north and northeastern portion of the Project Site are considered grazing lands, according to the FMMP. This area may have supported limited grazing in the past, but is presently primarily native vegetation. Approximately 147.6 acres of the central portion of the Project Site is considered Unique Farmland, primarily where avocado production has occurred. Approximately 55.7 acres along the central western portion of the Project Site where citrus crops have been grown is considered Farmland of Statewide Importance. The remainder of the site is classified as Farmland of Local Importance (42.8 acres), Other Land (0.8) and a small portion of the site (approximately 6.4 acres) is categorized as Prime Farmland.

The project design includes retention of 49.3 acres of agriculture within a conservation easement. The groves would be maintained by the Meadowood HOA. This is an important factor because, as stated in the County Agricultural Guidelines, “preservation of agricultural resources ensures that the land would remain available for agricultural use; however, the choice to use the land for agriculture is the decision of the individual property owner.” This means that a typical conservation easement cannot ensure that a parcel continues to be used for agriculture, and merely preserves the agricultural soils for future use. In contrast, the agricultural open space easement on the Proposed Project would remain in agricultural use because, as a condition of Proposed Project approval, the HOA would be required to maintain the avocado/citrus groves.

The California LESA Model was used to evaluate the direct impacts that would result from conversion of agricultural lands to non-agricultural use.

<u>LESA Model Results</u>

LESA was used pursuant to Appendix G of the CEQA Guidelines as it is specifically intended to “provide lead agencies with an optional methodology to ensure that significant effects on the environment of agricultural land conversions are quantitatively and consistently considered in the environmental review process.” Application of the LESA Model includes a two-prong analysis based on a Land Evaluation (LE, i.e. on-site soils) and a Site Assessment (SA, i.e. project size, and water resources) to produce a numerical score for site-specific agricultural impacts. A project is considered to be an important resource under the LESA Model if the total LESA Model score is greater or equal to 40 points, and the subscores for the LE and SA segments are each greater than

or equal to 20 points. The specifics for the LESA Model used for the Proposed Project are detailed in Table 4.7-2 and Appendix G of this EIR.

As shown in Table 4.7-2, while the overall LESA Model score for the Project Site is 40.8 and the SA subscore is 27.8 points, the LE subscore is 13 points. According to the LESA Model, this score means that the Project Site does not represent a significant agricultural resource because the LE subscore is less than 20.

TABLE 4.7-2
FINAL LESA SCORESHEET

Factor Name	Factor Rating	Factor Weighting	Weighted Factor Rating
Land Capability Classification	27.75	0.25	6.9
Storie Index Rating	24.34	0.25	6.1
Total LE Subscore			13.0
Project Size	80	0.15	12.0
Water Resource Availability	45.2	0.15	6.8
Surrounding AG Lands	60	0.15	9
Protected Resource Lands	0	0.05	0
Total SA Subscore			27.8
TOTAL LESA SCORE			40.8 Not Significant*

*For total LESA scores of 40-59 - Considered significant only if LE and SA subscores are each greater than or equal to 20 points.

Based on the LESA analysis the Project Site does not contain significant agricultural resources; therefore, impacts associated with the conversion of agricultural land to non agricultural use would be less than significant. Conflict with Existing Zoning for Agricultural Use or a Williamson Act Contract (Guideline 2)

A project would result in a significant impact if it would place or establish non-permitted uses in existing agricultural zones or on Williamson Act contract lands.

Current zoning in the Multiple Rural Use area is Limited Agriculture, A70. The Proposed Project would rezone the entire site to the S-88 Specific Planning Area Use Regulation. The proposed rezoning would not represent a significant impact to agriculture because it would not result in any conflicts with zoning for agricultural use. In San Diego County, agriculture is allowed in any zone and there are no exclusive agricultural zones. The proposed specific plan amendment and rezone would make the site's zoning consistent with proposed use. Therefore, the Proposed Project would not conflict with existing zoning and impacts would be **less than significant**.

There are no Williamson Act contract lands within or adjacent to the Project Site. A Williamson Act contract parcel is located approximately one mile to the southeast of the Project Site. Active agricultural uses occurring on this Williamson Act Contract land would not be directly affected by Proposed Project implementation because of the one mile separation between the contract land and the Proposed Project; therefore, impacts would be **less than significant**.

Involve Other Changes in the Existing Environment (Guideline 3)

A project would result in a significant impact if it would involve other changes in the existing environment, which, due to their location or nature, could result in conversion of farmland to non-agricultural use. Specifically, other changes in the existing environment (as described in Appendix G of the State CEQA Guidelines) may include indirect impacts both **to** and **from** the Proposed Project. For example, indirect impacts **to** adjacent agriculture **from** the Proposed Project may include conditions such as air, water quality, and traffic effects, as well as other indirect impacts of farmland conversions including trespassing, pilfering of crops, and damaging of farm equipment. The pressure, inconvenience, and increased costs of operating the adjacent farm may render continued farming infeasible, or at least heighten the attractiveness of selling the farm for development. If this were to occur, eventually another indirect conversion could result from leapfrog or non-contiguous development pattern. Development approvals result in the grouping of viable agricultural parcels between urban land uses, and the likely continuation of urban expansion often results in the conversion of the farmland area.

Conversely, if the land uses proposed by the development are inherently incompatible with farm uses, they may be affected by indirect impacts **from** the agriculture. These may include odors, noise, and vectors generated by the agricultural operation and may also include exposure to pesticides or runoff if there is not enough of a buffer. The complaints generated by these types of indirect impacts could potentially result in the short- or long-term conversion of agricultural areas to non-agricultural use through physical effects and/or community pressures. Typical agricultural activities can generate noise, dust, and odors and could be viewed as nuisance generating to non-agricultural neighbors. Each of these changes increases the farming costs at the adjacent farmland properties. Land use conflicts between agriculture and non-agricultural land uses can result in the conversion of agriculture to non-agricultural uses.

The Proposed Project would not place non-agricultural uses adjacent to farmland, as depicted in Figure 4.7-2, except to the south (south of SR-76). As discussed above, active farming exists on neighboring properties. However, the proposed Campus Park development to the west, while designated as grazing land, has not been actively used for agriculture for over 25 years (Campus Park EIR, 2009). Sites to the south and east of the Project Site support ongoing field crop and citrus operations, but are physically separated from the project site by Rosemary's Mountain and the Monserate Mountain ridgeline. Further, the agriculture adjacent to the Project Site consists primarily of citrus and mixed used orchards which generally are compatible with residential and related development. Orchard crops do not generally produce strong odors and do not require year round labor, harvesting or traffic. Orchard crops are commonly located among residential areas and nuisance issues are low when compared to more intensive agricultural uses.

Therefore, the Proposed Project would not result in significant impacts related to agricultural land use conflicts because the Project Site is physically separated from nearby agricultural operations (SR-76 to the south and the Monserate ridgeline to the east). In addition, the following design features are incorporated into the Proposed Project in order to provide additional assurance that the proposed on-site structures would be buffered from both on- and off-site agricultural uses.

1. The Proposed Project shall provide a buffer between the development footprint and the agriculture within Rice Canyon to the east. The buffer would prevent residential development from being located adjacent to active agricultural operations. The buffer would total 171.7 acres and be comprised of the 49.3 acres of agricultural open space and the 122.4 acres of natural open space that would be preserved as shown on the VTM; and which would be a minimum of 1,000 feet and up to approximately 2,500 feet at it's widest.

2. As shown on Figure 1-9, a landscape buffer between the on-site agricultural preserve area and the on-site residential areas shall be implemented to provide additional buffering. The landscaped buffer would be a 100-foot-wide area.

Only a landscape buffer, as mentioned in #2 above, is proposed in order to separate the proposed on-site residences from the on-site agricultural preserve. The reason that the landscaping buffer would be considered sufficient is that, unlike off-site agricultural uses, the activities occurring within the on-site agricultural preserve would be under the direction of the Meadowood HOA. Thus, the HOA would have the control necessary to ensure that its ongoing operations and maintenance activities would utilize practices that would not endanger or inconvenience the residents (e.g. organic farming). In addition, the County Agricultural Enterprises and Consumer Information Ordinance requires notification to prospective property buyers regarding the potential for nearby agricultural activities to exist and for those users to generate nuisances such as odor, dust, and traffic. The notice establishes the rights of farmers to farm in accordance with normal and accepted customs, even if those activities may be perceived as nuisance generating.

As described above, existing agricultural activities in close proximity to the Project site consist primarily of citrus and mixed-use orchards, uses which typically are not subject to significant nuisance effects. Therefore, impacts related to changes which could result in conversion to non-agricultural uses would be **less than significant.**

Conflict with Applicable Plan, Policy, or Regulation (Guideline 4)

A project would result in a significant impact if it would conflict with any applicable plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

California Land Conservation (Williamson) Act—There are no Williamson Act contract lands within the Proposed Project. The nearest Williamson Act contracted lands are located approximately one mile to the southeast of the project site. Therefore, the Proposed Project is consistent with this regulation.

San Diego County General Plan Policies—The San Diego County General Plan (1996) contains several policies that relate to agriculture in some way, such as land use, open space, and conservation as discussed below:

San Diego County General Plan, Regional Land Use Element—None of the proposed land use designations preclude avocational agriculture on individual residential lots (i.e., small orchards on individual lots); thus, the proposed change in land use designation would not present a conflict with agricultural policies.

San Diego County General Plan, Conservation Element—As there are no Williamson Act Contracts on-site and the Proposed Project has evaluated the potential agricultural impacts including an assessment of soil resources, the Proposed Project is not in conflict with the goals and policies of the Conservation Element. Furthermore, the Proposed Project's inclusion of 49.3 acres of agricultural open space would ensure on-site agriculture is retained and therefore, the Proposed Project would not present a conflict with agricultural policies.

San Diego County General Plan, Open Space Element—Potential impacts associated with the Proposed Project with respect to conflicts between agricultural and non-agricultural land uses was discussed above and were found to be less than significant through project design measures. Therefore, the Proposed Project does not conflict with agricultural goals and policies of the Open Space Element.

San Diego County Agricultural Enterprises and Consumer Information Ordinance—As discussed above, there are agricultural operations occurring within the vicinity of the Proposed Project, such as the cattle grazing to the west and the field crop operations occurring to the east and south. As required by the ordinance, notice to prospective homebuyers will be provided to notify future residents that agricultural uses exist in the vicinity of the project and that these uses maintain certain rights to practice agriculture in accordance with normal and accepted practices.

LAFCO Policy L-101—The Proposed Project would convert agricultural lands, including 14.5 acres of Prime Agricultural Land (per LAFCO definition) within the Project Site to non-agricultural uses. As discussed above, the conversion of farmland would be less than significant based on the LESA Model analysis performed for the Proposed Project (Appendix G); however, it may still be considered an adverse affect, as defined by LAFCO's adopted procedures. The finding of an adverse affect on Prime Agricultural Land requires additional analysis to determine whether the conversion would promote the "planned, orderly, and efficient development of an area."

The Project Site is located within the northeastern quadrant of the intersection of I-15 and SR-76, an area which has been planned as a primary location for future growth since 1988 when the Board of Supervisors adopted a General Plan Amendment to the Fallbrook CP which included the I-15 Corridor Subregional Plan, along with the I-15/SR-76 Interchange Master Specific Plan. This area was planned for future growth due to its location at the intersection of two freeways. This area contains anticipated mixed uses including Palomar Community College campus (already approved) as well as commercial, office and residential uses as proposed for adjacent properties (Campus Park and Campus Park West). As evidence of current planning thought, the Draft General Plan Update Land Use Plan designates the portions of the Project Site planned for development as "Village." The Village category identifies areas where a higher intensity and range of land uses has been envisioned. Typically Village areas function as the center of community planning areas and contain the highest population and densities. Therefore, the Proposed Project would promote the planned, orderly, and efficient development of the area, in compliance with LAFCO Policy L-101.

In conclusion, no conflicts with plans and policies related to agriculture have been identified and associated impacts would be **less than significant.**

4.7.4 Cumulative Impact Analysis

The cumulative study area was generated on the basis of the following considerations: (1) applicable cumulative project locations relative to the Project Site; (2) the presence of agricultural activity or designations; (3) agricultural resource potential (e.g. the presence of high quality soils); (4) physical barriers to contiguous agricultural uses such as steep or rocky terrain, and (5) cultural barriers to contiguous agricultural use such as major roadway corridors or substantial urban development. A summary of those projects, included in the cumulative study area, which would impact agricultural land, is provided below:

- TM 5338 (SP83-01)—Campus Park (Passerelle)—This project proposes 751 residential units on 417 acres as well as retail space, offices, a sports complex, and a neighborhood park. Approximately 85 acres of the Campus Park site are now owned by Palomar College, who plans to construct a new campus to serve 12,000 students. The site contains 176 acres that is zoned A-70 and used for cattle grazing.

- TM 5424 (PAA 04-003)—Campus Park West (Pappas)—The Campus Park West project is located adjacent to Campus Park West (Passerelle). The 118.5-acre project site proposes 369 residential units, commercial and office uses, a park, and open space. There is a small (approximately 10 acres) area of the site that was previously farmed, but which is reverting back to native vegetation. Based on field reconnaissance and a review of aerial photos, it was determined that there is no active agriculture on-site.

- TM 5532—Fallbrook Ranch—This 11 lot subdivision at 2365 S. Old Highway 395 that contains Unique Farmlands and old orange groves. The project may impact approximately 12.8 acres of agricultural land.

- TPM 21075—Dimitri, Diffendale, and Kirk—This project is a 4-lot minor subdivision located south of Monserate Hill Road. The property supports 10 acres of groves.

- TPM 21156—The Monserate Minor Subdivision—This subdivision is located at 3624 Monserate Hill Road has approximately 19 acres of groves.

- TPM 21076—Sumac Minor Subdivision—This project, located at Sumac Road, has approximately eight acres of agricultural land.

- TPM 21096—(Fernandez Minor Subdivision)—The project site supports approximately four acres of agricultural land (groves).

- TM 4729—Tedder Subdivision—The site is now graded, but previously supported 13 acres of groves.

- TPM 20841—Bridge Pac West—This project site contains Unique Farmland and Farmland of Local Importance. Although not actively farmed, it is considered farmland. Due to the large size of parcels proposed, it is assumed approximately five acres of the 15.9 would likely be impacted since agriculture would remain viable on larger lots.

The Project Site is located in an area that has been slated for development in a number of historical planning documents (see, Subchapter 4.1, above).

As discussed in detail above, pursuant to the LESA model, the Project Site was determined not to be a significant agricultural resource. As such, the Proposed Project would not have a direct impact on significant agricultural resources, and would, likewise not have the potential to contribute to a cumulative impact. To assure that the Proposed Project would not result in such a contribution, the Proposed Project includes the retention of 49.3 acres of citrus and avocado groves within open space to allow for the continuation of agricultural use on-site. Therefore, the Proposed Project would not result in a cumulatively considerable contribution to conversion of significant agricultural resources within the cumulative project area.

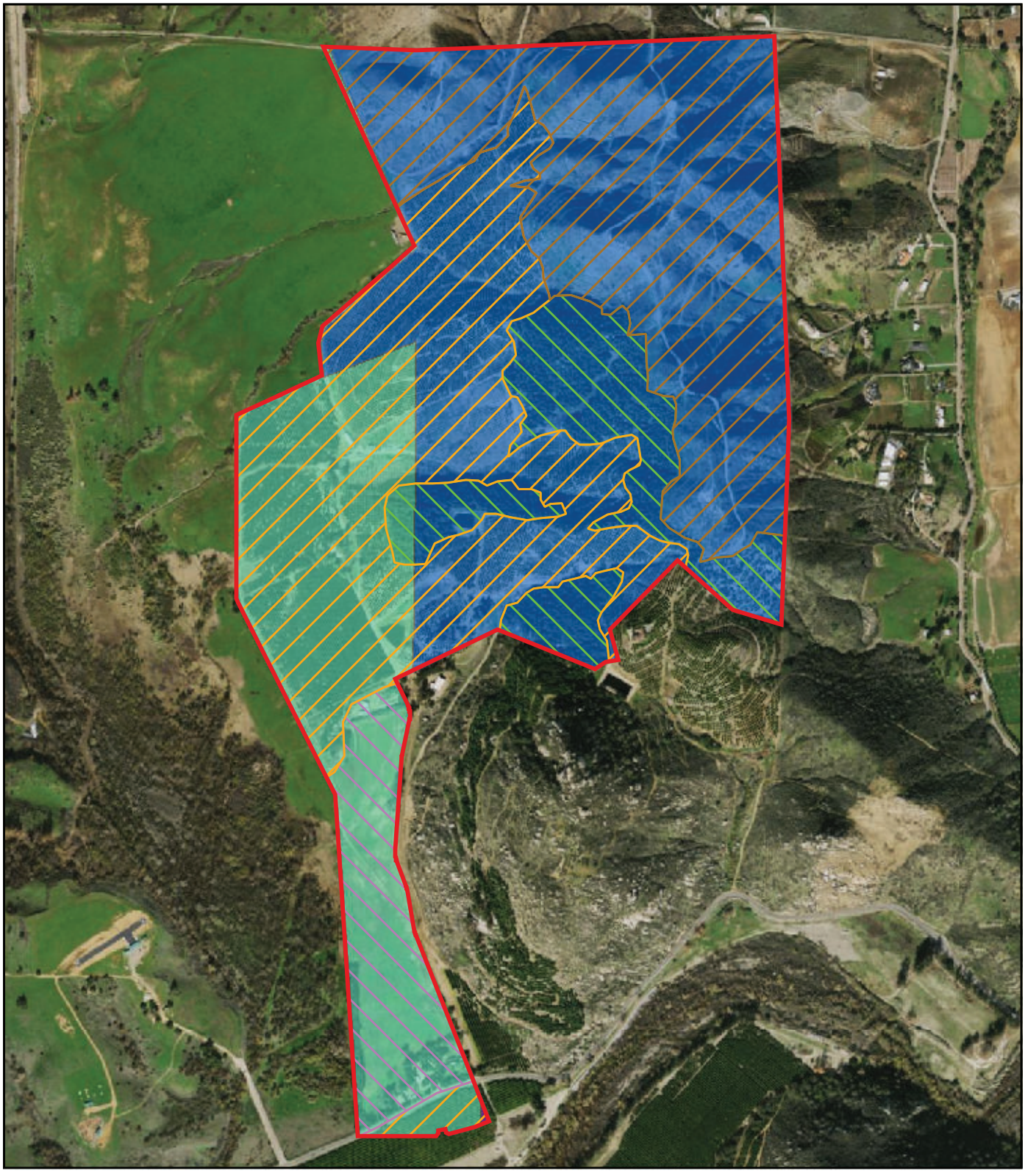
4.7.5 Conclusion

The LESA Model analysis prepared for the Proposed Project resulted in a score which indicates that the Project Site does not represent a significant agricultural resource. Approximately 209.9 acres of the Project Site are in active agricultural uses, primarily citrus and avocado groves. Development of the Proposed Project would convert approximately 160.6 acres to residential uses, but as part of the project design, 49.3 acres of existing citrus and avocado groves would be permanently preserved on-site within an agricultural conservation easement to be maintained by the HOA. Thus, significant impacts relative to the conversion of agricultural land to non-agricultural uses within the project site would be avoided. Additionally, the Proposed Project would not result in a cumulatively considerable contribution to the conversion of significant agricultural resources within the project area.

The Proposed Project could result in “edge effect” impacts to adjacent agriculture as a result of the incompatibility of residential uses within agricultural areas. These impacts are reduced through the implementation of project design measures including the creation of a buffer comprised of the 49.3-acre agricultural open space and the 122.4 acres of natural open space (total of 171.7 acres), which would be a minimum of 1,000 feet in width and up to approximately 2,500 feet at its widest part. In addition, a design consideration in the form of landscaping buffers would ensure compatibility between the proposed on-site residences and the on-site agricultural preserve.

The proposed Specific Plan Amendment and rezone would make the Project Site’s zoning consistent with proposed use, while continuing to allow agriculture in the agricultural open space areas. Therefore, the Proposed Project would not conflict with existing zoning and impacts would be less than significant.

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Project Boundary

Zoning

- A70, LIMITED AGRICULTURE
- A72, GENERAL AGRICULTURE
- S90, HOLDING AREA

Current Land Use

- Avocado Orchards
- Citrus Orchards
- Field Crops
- Natural Vegetation

0 Feet 1,000

RECON

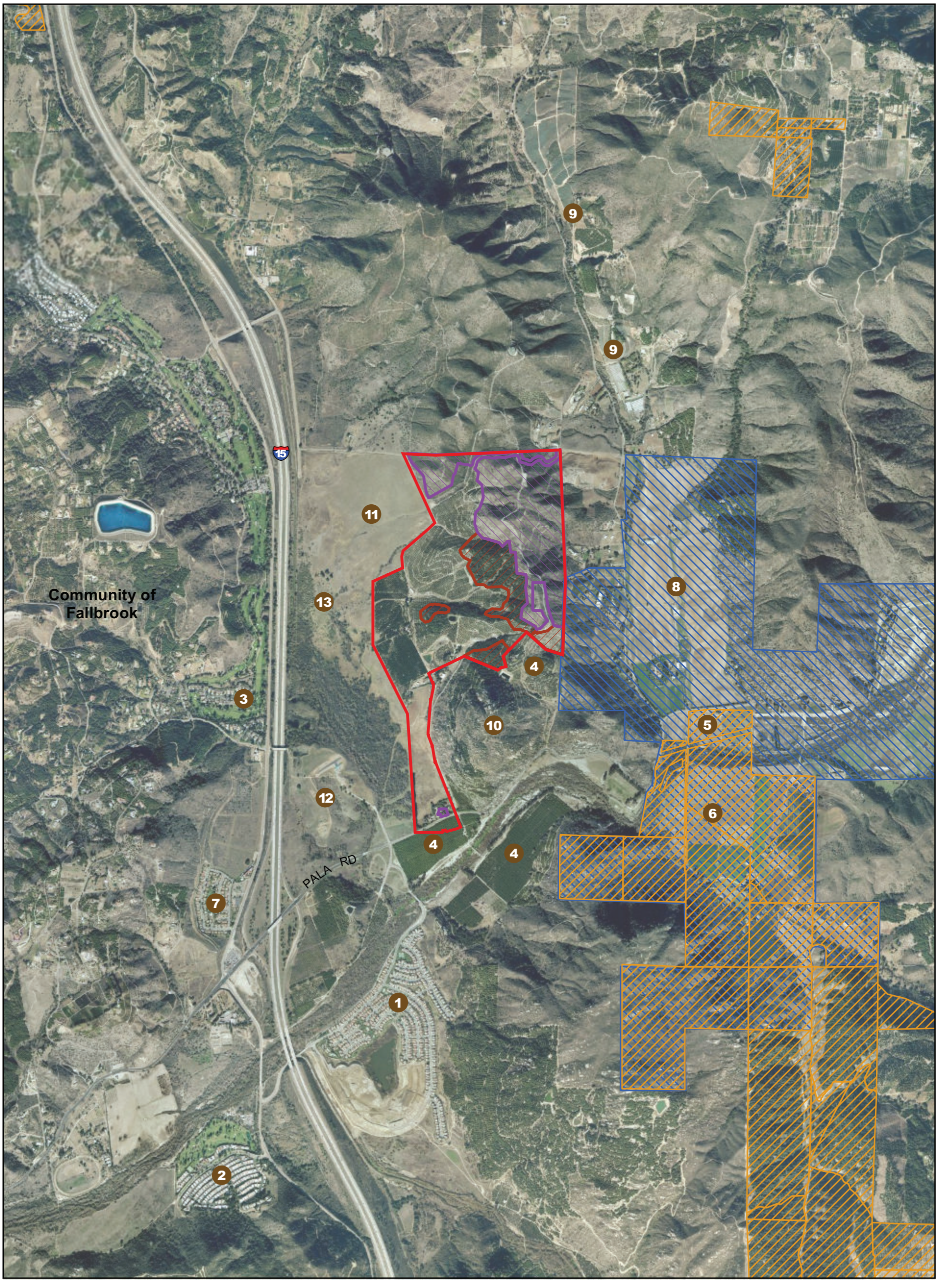
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FIGURE 4.7-1

Existing Land Use and Zoning

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Image source: (c)2009 Microsoft Corporation.



0 Feet 2,000

Project Boundary	1	Rancho Viejo Mobile Home Park	6	San Luis Rey Ranch	11	Campus Park
Williamson Act Contracts	2	Rancho Monserat Mobile Home	7	Pala Mesa Village	12	Campus Park West
Pala Preserve #15	3	Pala Mesa Resort & Golf Course	8	Fritz Family Property	13	Palomar Community College
Agricultural Open Space	4	Pankey Ranch	9	Rural Residential & Small Scale Agriculture		
Natural Open Space	5	Pala Rey Ranch	10	Rosemary's Mountain Quarry		

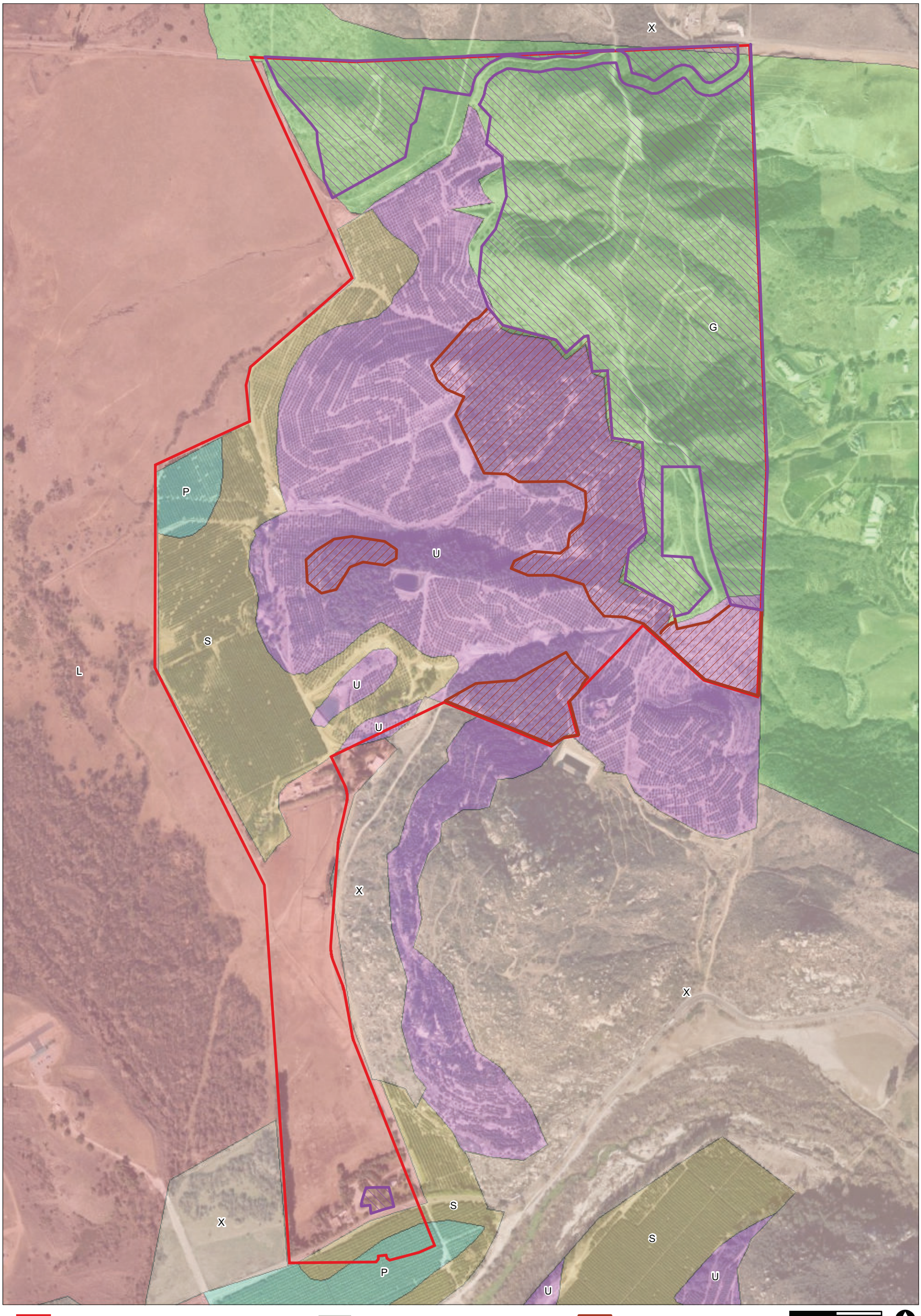
RECON

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FIGURE 4.7-2

Surrounding Land Uses

Image source: (c)2009 Microsoft Corporation.



Project Boundary

FMMP 2006

- G, Grazing Land
- L, Farmland
- P, Prime Farmland
- S, Farmland of Statewide Importance
- U, Unique Farmland
- X, Other Land

Agricultural Open Space

Natural Open Space

0 Feet 600

FIGURE 4.7-3

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CDC Important Farmland Mapping

4.8 Effects Found Not Significant During Initial Study

The Initial Study found that every issue is potentially significant; therefore, all issues are addressed in this draft EIR.

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CHAPTER 5.0 PROJECT ALTERNATIVES

5.1 Rationale for Alternative Selection

In accordance with Section 15126.6(a) of the State CEQA Guidelines, an EIR must describe a range of reasonable alternatives to the project which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. The Proposed Project was determined to result in potentially significant impacts related to Aesthetics, Air Quality, Transportation/Traffic, Biological Resources, Geology and Soils, Cultural Resources, Noise, and Hazards/Hazardous Materials, the comparison of alternatives is based on these issues. A matrix comparing the impacts of each of these alternatives with the Proposed Project is shown on Table 5.1.

CEQA Guidelines section 15126(d)(5) states that "the range of alternatives in an EIR is governed by the 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice." The CEQA Guidelines provide several factors that should be considered with regard to the feasibility of an alternative: (1) site suitability; (2) economic viability; (3) availability of infrastructure; (4) general plan consistency; (5) other plans or regulatory limitations; (6) jurisdictional boundaries; and (7) whether the project applicant can reasonably acquire, control, or otherwise have access to the alternative site (if an off-site alternative is evaluated). The alternatives evaluated within this subchapter include the following:

1. No Project (No Development) Alternative

2. No Project (Development Consistent with the Adopted General Plan) Alternative

3. Groundwater Dependent (Development Consistent with the Groundwater Ordinance) Alternative

4. Reduced Grading Alternative

5. Proposed General Plan Update Draft Land Use Map Alternative (Development Consistent with the San Diego County General Plan Update)

6. Proposed General Plan Update Referral Map Alternative (Development Consistent with the San Diego County General Plan Update)

In addition, following the discovery of human remains in late January 2011, three additional alternatives were examined to consider the possible realignment and/or reconfiguration of Horse Ranch Creek Road. The discussion of these alternatives is provided to further CEQA's goals of public disclosure, although these alternatives are not required in order to reduce significant impacts associated with the remains, as those impacts can be mitigated consistent with the CEQA Guidelines by preservation in place, as discussed below. These three additional alternatives include the following:

1. Raised Elevation of Horse Ranch Creek Road Alternative

2. Western Alignment of Horse Ranch Creek Road Alternative

3. Reconfigured Alignment of Horse Ranch Creek Road Alternative

Each of the six original alternatives was selected in order to either: (1) avoid or minimize significant impacts associated with the Proposed Project, or (2) compare potential effects with General Plan Update alternatives, which are considered viable development options for planning purposes. These alternatives permit informed decision making and public participation because there is enough variation amongst the alternatives that provide a reasonable range. The CEQA alternatives would avoid or minimize significant impacts associated with the Proposed Project while also meeting the project objectives. Specifically, the following criteria were considered.

The No Project (No Development) Alternative was included because it is likely that a new applicant may not be found within the foreseeable future. The No Project (No Development) Alternative would allow retention of uses similar to those currently existing on site, thereby avoiding both construction-period and long-term impacts (i.e., to aesthetics, biological and cultural resources, as well as associated secondary effects such as traffic generation and related noise and air quality) associated with development of the Proposed Project.

The No Project (Development Consistent with the Adopted General Plan) Alternative was included because it is required under CEQA Guidelines Section 15126.6(e) since the Proposed Project proposes revisions to an adopted Specific Plan and General Plan. This alternative would allow for 262 single-family residential units; 33 units within the (18) Multiple Rural Use area composed of minimum lots size of four, eight, or 20 (depending on slope), and 229 units on 10,000 square foot lots within the (21) Specific Plan area. This alternative could result in the reduction of air quality impacts compared to the Proposed Project due to the reduction of emissions associated with operational uses of a less dense community.

The Groundwater Dependent (Development Consistent with the Groundwater Ordinance) Alternative was included to provide an alternative which eliminated the need for annexation to a MWD, and construct infrastructure improvements associated with the extension of water and wastewater service. By relying on groundwater to sustain development within the project site, this alternative would yield 46 eight-acre lots. While this alternative would reduce impacts associated with aesthetics, air quality, traffic, and noise compared to the Proposed Project, this alternative would not support or require the construction of a school site, park or new fire access road.

The Reduced Grading Alternative provides an alternative which reduces the development potential by clustering a total of 1,138 multi-family units within an 89.5-acre area. The remaining acreage would be preserved as biological and agricultural open space. This alternative is included to focus an alternative on minimization of significant impacts related to the Proposed Project footprint and sensitive biological resources. Sensitive plant species impacted by the Proposed Project would not be affected, and significant impacts to southern riparian forest, Diegan coastal sage scrub, and non-native grassland would be reduced.

The Proposed General Plan Update Draft Land Use Map Alternative (Development Consistent with the San Diego County General Plan Update) and Proposed General Plan Update Referral Map Alternative (Development Consistent with the San Diego County General Plan Update) were included in the alternatives to provide a comparison

of potential effects which could occur under each General Plan Update alternative. Overall, impacts under each of these alternatives would be the same as the Proposed Project. Traffic impacts would, however, be greater than the Proposed Project under the Proposed General Plan Update Draft Land Use Map Alternative.

These alternatives are compared to the impacts of the Proposed Project and are assessed relative to their ability to meet the basic objectives of the Proposed Project. As described in Chapter 1, the Proposed Project includes the following objectives:

1. Provide a variety of residential land uses to allow for residential development that meets the demand for housing in the region consistent with the rustic charm of Fallbrook.

2. Provide an opportunity for home ownership by increasing the housing supply with a variety of housing types in Fallbrook.

3. Provide for preservation of significant environmental and visual resources by conserving environmentally sensitive lands, prominent ridgelines, and regional wildlife corridors while recognizing and mitigating for wildfire potential.

4. Provide for land uses that relate to the community in conjunction with the two neighboring projects.

5. Maintain agricultural uses as a buffer to natural lands.

6. Provide educational and recreational opportunities in close proximity to residential uses, accessible by public roads and trails.

7. Coordinate public facilities and infrastructure with adjacent landowners and ensure availability concurrent with need.

8. Require permanent preservation of natural open space areas, while allowing public recreational opportunities.

9. Through LAFCO's Sphere of Influence (SOI) determination, identify the most efficient service provider to ensure provision of water, wastewater, and recycled water to support anticipated growth consistent with County of San Diego (County) land use decisions.

10. To provide fire and emergency services, potable water service and wastewater service to the Project Site through annexation into the NCFPD and into a MWD, SDCWA, and MET.

The three alternatives associated with Horse Ranch Creek Road were selected to analyze potential impacts specific to the construction of Horse Ranch Creek Road, including impacts associated with the recent discovery of remains on the site of the Road. Pursuant to CEQA Guideline 15126.4(b)(3), impacts relating to the remains will be mitigated by preservation in place, consistent with the discussion in the Draft EIR regarding potential discovery of remains. Nevertheless, these alternatives are evaluated to provide discussion of further options relating to the area in which the remains were discovered. The Raised Elevation of Horse Ranch Creek Road Alternative would avoid

future excavation in the area of potential human remains because it would elevate the profile of the roadway and cover the site of the remains to avoid any further disturbance associated with construction of the roadway.

The Western Alignment of Horse Ranch Creek Road Alternative was included because it would relocate Horse Ranch Creek Road west of the current alignment in an attempt to avoid the site of the remains and to avoid unearthing potential cultural resources.

The Reconfiguring of Horse Ranch Creek Road Alternative would eliminate that portion of Horse Ranch Creek Road most likely to be in the vicinity of cultural resources. This alternative would include widening of Pankey Place and improvement to the intersection of SR-76 and Pankey Road.

According to the CEQA Guidelines Section 15126.6(d), discussion of each alternative should be sufficient "to allow meaningful evaluation, analysis, and comparison with the Proposed Project." Therefore, the significant effects of each alternative are discussed in less detail than those of the project, but in enough detail to provide decision-makers perspective and a reasoned choice among alternatives to the Proposed Project.

The CEQA Guidelines require the evaluation of the No Project Alternative. The discussion of the No Project Alternative may proceed along two lines:

1. If the project is a development proposal, the No Project Alternative is the circumstance under which the project does not proceed.

2. When the project is the revision of an existing land use or regulatory plan, the No Project Alternative is the continuation of the existing plan.

In the case of the Proposed Project, which involves a land use plan amendment and development proposal, both No Project Alternatives apply and are discussed below.

5.1.1 Alternative Location

In accordance with CEQA Guidelines Section 15126.6(f)(2), an alternative project site location should be considered if development of another site is feasible and if development of another site would avoid or substantially lessen significant impacts of the proposed project. Factors that may be considered when identifying an alternative site location include the size of the site, its location, the General Plan (or Community Plan) land use designations, and availability of infrastructure. CEQA Guidelines Section 15126.6(f)(2)(A) states that a key question in looking at an off-site alternative is "…whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location."

Appropriateness of the location of the Proposed Project is initially based on foreseen uses at this specific site. The Proposed Project is intended to take advantage of its location at the intersection of two major County thoroughfares, and is consistent with the County's long-range plans for I-15/SR 76 node development.

As a residential community comprised of a mix of single-family and multi-family units, it would offer recreational and circulation amenities to the surrounding existing residential uses (parks, trails, and transit opportunities).

No other similarly sized property is available for development in the vicinity; the areas to the west are currently proposed for development (Campus Park, Campus Park West and Palomar College). The area south of the San Luis Rey River has already been developed with single-family residences, and the area to the north includes property within the Fallbrook Land Conservancy.

If another parcel in the vicinity of the project site were to become available, development upon it would be likely to result in impacts similar to those identified for the Proposed Project, such as potential effects on aesthetics, air quality, transportation/traffic, and biological resources. Greater impacts related to land use inconsistency and community character aspects would be anticipated as a result of proposing denser mixed uses into an area not already planned for such development.

Because (1) the property was purchased with the intention of developing the site with residential plans, (2) there are no similar parcels of land in the vicinity suitable for this type and scale of development, and (3) there is a likelihood that another site would likely not substantially reduce significant environmental effects, the need to evaluate an off-site alternative was rejected.

5.2 Analysis of the No Project (No Development) Alternative

5.2.1 Description and Setting

The No Project (No Development) Alternative would retain the site in its current condition, including the four existing single-family residences and related agricultural buildings, avocado and citrus groves, native habitat and vacant land (Figure 5-1). No new development, including the proposed single-and multi-family housing, school, park, and infrastructure would occur. The No Project (No Development) Alternative would not require LAFCO action for the annexation of the Project Site into a MWD, the SDCWA, or MET. The agricultural operations would continue to use groundwater as the source of irrigation and potable water and septic sewer for the existing buildings. Although located within the I-15 corridor, conformance with the I-15 Corridor Preservation Guidelines would not be relevant for this alternative because no development is proposed.

5.2.2 Comparison of the Effects of the No Project (No Development) Alternative to the Proposed Project

Aesthetics

The No Project (No Development) Alternative would result in fewer visual impacts compared to the Proposed Project. Views into the Project Site would not depict a higher intensity development that could contrast with surrounding areas. Although implementation of the Proposed Project's design guidelines and landscape plans result in a finding that direct visual impacts would be less than significant, the No Project (No Development) Alternative would avoid aesthetic impacts of the Project Site under construction and as developed with homes. Additionally, because the No Project (No Development) Alternative does not propose the construction of any homes, it will not add to the overall development of the region. Therefore, impacts would be reduced from significant and unmitigable cumulative impacts to less than significant levels.

Air Quality

Under the No Project (No Development) Alternative, significant and unmitigable impacts associated with the Proposed Project would be avoided. Although some air quality impacts could occur from on-going agricultural operations, construction and operation-related emissions would not occur and impacts would be reduced from significant and unmitigable to less than significant levels.

Transportation/Traffic

The Proposed Project would generate an estimated 8,740 vehicle trips per day and result in significant direct and cumulative impacts to a total of 19 intersections and 14 street segments and state routes. Most of these impacts would be mitigated through roadway improvements, payment into the County TIF program, or through the provision of fair share contribution toward road improvements. Under the No Project (No Development) Alternative, traffic generation would continue to total 40 trips based on the existing four single-family residences and related agricultural uses of the site. Traffic impacts would not occur and benefits from intersection and roadway improvements would not be realized. Therefore, traffic impacts associated with this alternative would not trigger the need for additional lanes of travel along SR-76 and at no time would be considered significant and unmitigable.

Biological Resources

Construction of the Proposed Project would result in direct and indirect, temporary and permanent impacts to biological resources. The Proposed Project would directly and significantly impact multiple sensitive habitats on and off site, agricultural, coastal sage scrub /disturbed coastal sage scrub, southern mixed chaparral, coast live oak woodland, willow/mule fat scrub, open water/pond, non-native grassland, non-native trees, pastureland, southern willow scrub, fresh water marsh, and southern arroyo willow riparian forest. The Proposed Project would also result in significant impacts to ACOE, CDFG jurisdictional areas and RPO wetlands. Impacts to these sensitive habitats and the species they support would require mitigation. These significant impacts would not occur under the No Project (No Development) Alternative. Additionally, indirect impacts associated with Proposed Project construction and long-term occupancy of the site by residents would not occur under this alternative, although continued agricultural use of the Project Site would have some indirect impacts on nesting birds and other wildlife. While there would be no loss of biological resources, the long-term preservation of resources would not be assured as with the Proposed Project which would include dedication of land to the MCSP Preserve. Overall, impacts to biological resources would be less than the Proposed Project.

Geology and Soils

Although standard design measures would be included in the construction of the Proposed Project, they would not completely eliminate the risks associated with liquefaction within the Project Site. Likewise, rockfall potential would remain significant and requires mitigation. These conditions would remain, but there would be no impacts, as structures would not be affected by the No Project (No Development) Alternative. Therefore impacts of this alternative would be less than the Proposed Project.

Cultural Resources

Surveys of the Project Site revealed two cultural resources on site, one historic and one prehistoric. These include a group of historic buildings associated with Rancho San Luis Rey/Pankey Ranch, as well as new archaeological deposits within the boundaries of a previously recorded prehistoric large habitation site/ethnographic village. Additionally, it appeared as though the Project Site was the location of the Rancho Monserrate Adobe; however, no physical evidence of the adobe has been found. Since no grading activities (which might uncover unknown resources) would occur on the Project site with the No Project (No Development) Alternative, no significant impacts to cultural resources would occur. This is potentially less impactive than the Proposed Project, for which the possibility of future impacts to currently unknown cultural resources was identified.

Noise

The Proposed Project would result in exposure to significant traffic noise for some residents situated near major roadways and the WWTP. Potential noise impacts associated with the No Project (No Development) Alternative would primarily be due to the use of farm equipment, as well as occasional vehicle trips. Noise levels would be less than significant because the noise source would be intermittent and mobile, and there is a lack of sensitive receptors adjacent to the farming areas. Therefore, noise impacts would be less with this alternative compared to the Proposed Project.

Hazards/Hazardous Materials

Site surveys revealed two on-site irrigation ponds and smudge pots, remains from historical farming on the Project Site. Although there remains the potential for a release of hazardous substances from these sites, impacts would be less under the No Project (No Development) Alternative because no new residences would be constructed within close proximity of the sites. Additionally, the potential release of asbestos and lead paint would not exist under this alternative because the historic farm houses would not be demolished. The continued use of pesticide on the groves would increase hazard risk associated with this alternative. In addition, there would be no FPP in place to reduce potential hazards of wildfire. However, because this alternative would not place people or structures on the Project Site that would be exposed to these risks, impacts associated with this alternative would be less than the Proposed Project.

5.2.3 Conclusion

The No Project (No Development) Alternative is environmentally superior to the Proposed Project because it would avoid significant unmitigated impacts related to aesthetics, air quality, and transportation/traffic, as well as reduce significant and mitigated impacts associated with biological resources, geology and soils, cultural resources, noise, and, hazards/hazardous materials for the Proposed Project. This alternative would not develop housing nor meet any of the Proposed Project's objectives.

5.3 Analysis of the No Project (Development Consistent with the Adopted General Plan) Alternative

5.3.1 Description and Setting

The No Project (Development Consistent with the Adopted General Plan) Alternative (Figure 5-2) would entail the two existing General Plan Designations: (18) Multiple Rural Use and (21) Specific Plan Area with an implied density of 2.75 dwelling units per acre. There are 297.5 acres in the (18) Multiple Rural Use area, which requires a minimum lot size of four, eight, or 20 acres depending on slope. The (18) Multiple Rural Use area would yield approximately 33 dwelling units. There are 92 acres (gross) in the (21) Specific Plan Area portion of the Project Site. After taking out areas for roads, open space, etc, this which would yield approximately 229 single-family dwelling units on 10,000-square-foot and half-acre lots. Therefore, the No Project (Development Consistent with the Adopted General Plan) Alternative would produce approximately 262 single-family dwelling units. In accordance with the I-15 Corridor Scenic Preservation Guidelines, this alternative would include the application of a “B” Special Area Designator on each lot requiring preparation of a Site Plan for any type of development permit. This will assure conformance with the Guidelines.

In order to accommodate development consistent with the Adopted General Plan, the Project Site would be subdivided into traditional large lots for single family homes across the entire site as shown on Figure 5.2. The scope of development of this alternative would require water and sewer infrastructure, including development of a WWTP. This alternative would require annexation to a MWD, SDCWA, and MET and construction of facilities to provide water and wastewater services to the Project Site. This alternative could likely include a school site and park Similar to the Proposed Project, the No Project (Development Consistent with the Adopted General Plan) Alternative would require a Specific Plan Amendment for the 92 acres within the (21) Specific Plan area on the west side of the Proposed Project.

5.3.2 Comparison of the Effects of the No Project (Development Consistent with the Adopted General Plan) Alternative to the Proposed Project

Aesthetics

Development under the No Project (Development Consistent with the Adopted General Plan) Alternative would consist of a rural residential community on lots ranging from 10,000 square feet to 20 acres compared to the clustered, higher density residential development of the Proposed Project. Like the Proposed Project, direct aesthetic impacts would be less than significant; however, despite the decrease in density, the resulting pattern intensity of development would still significantly contrast with the existing rural character of the site when combined with cumulative projects. Cumulative visual impacts would be reduced but would still remain significant and unmitigable. Therefore, visual impacts associated with this alternative would be similar to the Proposed Project.

Air Quality

The Proposed Project has air quality impacts that are above a level of significance because the density proposed is greater than that considered in regional air quality

plans. This alternative would have a density that is consistent with the regional plans. Therefore, impacts associated with this alternative would be reduced from significant and unmitigated to less than significant levels. In addition, reduced traffic levels would contribute to a lower level of air emissions.

Like the Proposed Project, construction impacts would be significant under this alternative, but would be considered short-term and temporary. Therefore, air quality impacts associated with this alternative would be less than the Proposed Project.

Transportation/Traffic

The No Project (Development Consistent with the Adopted General Plan) Alternative would generate 2,660 ADT, less traffic than the Proposed Project by approximately 75 percent. Despite the reduced ADTs generated by this alternative a significant impact to the existing transportation infrastructure would still result and mitigation would be required. Although overall traffic impacts associated with this alternative would be less due to the reduced traffic generated compared to the Proposed Project, the timing of the Caltrans project widening of the SR-76 could result in significant and unmitigable impacts.

Biological Resources

Like the Proposed Project, development under the No Project (Development Consistent with the Adopted General Plan) Alternative would result in impacts to sensitive habitats, species and wildlife movement. Mitigation for these impacts would be required; however, this type of subdivision may not be able to support the dedication of 15.6-acre as a hardline on-site open space system which has been negotiated by the Proposed Project to assist in the assembly of the North County MSCP. An on-site preserve under this alternative may therefore be smaller and more fragmented than the proposed preserve, and would be subject to increased edge effects from development. Additional negotiation and approvals from state and federal agencies would be needed if this alternative is implemented. Impacts to sensitive habitats, species and wildlife movement due to the preserve design would therefore be greater in comparison to the Proposed Project.

Geology and Soils

The same geological conditions exist regardless of project design. This alternative would be subject to potentially significant impacts from liquefaction and rock slides. The same mitigation measures would apply to this alternative as the Proposed Project. Therefore, geological impacts associated with this alternative would be the same as the Proposed Project.

Cultural Resources

Under the No Project (Development Consistent with the Adopted General Plan) Alternative, the entire site would be subdivided into private lots resulting in the significant cultural resources located within individual lots. The RPO-mandated open space easements for preservation of these resources would be located within the individual lots, which would require fencing and signage to prevent intrusion and indirect impacts. Therefore, impacts associated with this alternative would be the same as the Proposed Project.

Noise

The Proposed Project would place residences adjacent to roadways where exterior and interior noise impacts are projected to exceed County standards resulting in significant impacts and therefore, mitigation in the form of additional noise analysis, placement of noise barriers and indoor attenuation is required. The No Project (Development Consistent with the Adopted General Plan) Alternative could avoid such impacts by precluding placement of home sites within the noise contours on the roadways.

Both this alternative and the Proposed Project include the construction and operation of an on-site WWTP. Like the Proposed Project, noise associated with operation of the WWTP could be greater than County standards at the closest residential property line causing a significant impact to occur. These impacts would be reduced to less than significant through the implementation of mitigation measures similar to the Proposed Project, including the construction of noise attenuation barriers. Overall, the noise impacts associated with this alternative would be less than the Proposed Project.

Hazards/Hazardous Materials

Like the Proposed Project, this alternative does not include the transport, emission, or disposal of hazardous materials. The potential for toxic impacts associated with the two on-site irrigation ponds, smudge pots, release of asbestos from demolition of the existing structures on-site, the removal of the existing septic tanks and possible historic well would be the same for this alternative as the Proposed Project. Development and implementation of a FPP would be required for this alternative as well as the Proposed Project. Overall, impacts associated with hazards and hazardous materials would be similar to the Proposed Project.

5.3.3 Conclusion

The No Project (Development Consistent with the Adopted General Plan) Alternative would result in reducing significant and unmitigated air quality impacts to a level which would be mitigated. Significant unmitigated impacts to aesthetics and transportation/traffic would remain. Impacts related to biological resources would be greater. Significant and mitigated impacts anticipated are associated with geology and soils, cultural resources, noise, and hazards/hazardous materials and would be similar to the Proposed Project. This alternative would not attain the following five of the ten project objectives. This alternative would not provide a variety of housing types (Objectives 1), preserve biological and visual resources (Objective 3), preserve ongoing agriculture (Objective 5), provide educational and recreational opportunities (Objective 6), or provide permanent preservation of natural open spaces (Objective 8).

5.4 Analysis of the Groundwater Dependent (Development Consistent with the Groundwater Ordinance) Alternative

5.4.1 Description and Setting

Since the Proposed Project requires the annexation to a MWD, SDCWA and MET, along with construction of water and wastewater infrastructure, the rationale for this Groundwater Dependent Alternative is to eliminate the need for annexation and associated infrastructure improvements. The Groundwater Dependent (Development

Consistent with the Groundwater Ordinance) Alternative relies on groundwater to sustain development consistent with the San Diego County Groundwater Ordinance. Under this alternative, the Groundwater Ordinance would restrict lot sizes based on annual average rainfall. This Project Site and surrounding areas receive 15 to 18 inches of rainfall annually. Based on this amount of rainfall, the Ordinance would require a minimum lot size of eight acres. Therefore, 46 eight-acre single-family lots could be accommodated on the site (see Figure 5-3). In accordance with the I-15 Corridor Scenic Preservation Guidelines, this alternative would include the application of a "B" Special Area Designator on each lot requiring preparation of a Site Plan for any type of development permit. This will assure conformance with the Guidelines.

This number of units would not support or require the development of a school site or park. The high cost of annexation and connections would lead to the use of private on-site septic systems. Water service would not be required as this alternative proposes a groundwater-dependent community most likely within private wells. No WWTP or wastewater infrastructure would be required other than to support septic tanks and wells for groundwater use. Like the Proposed Project, the Groundwater Dependent (Consistent with the Groundwater Ordinance) Alternative would require a Specific Plan Amendment for the 92 acres on the west side of the Proposed Project.

5.4.2 Comparison of the Effects of the Groundwater Dependent (Consistent with the Groundwater Ordinance) Alternative to the Proposed Project

Aesthetics

Development under this alternative would consist of approximately 46 single-family residences on eight-acre lots distributed across the site. Due to the fact that this alternative would result in fewer units which would be developed in a similar land use plan as the existing condition (large lot single-family residential), visual impacts associated with this alternative would be reduced from significant and unmitigable to less than significant levels.

Air Quality

The number of lots under this alternative is below that contemplated in existing county plans and SANDAG 2030 forecasts. Therefore, this alternative does not represent a conflict with San Diego RAQS or SIP and impacts would be reduced from significant and unmitigated to less than significant levels.

This alternative would generate 522 ADTs which would be approximately 96 percent less than the Proposed Project. Traffic-related air quality impacts associated with this alternative would be less than the Proposed Project. Likewise, the construction of this alternative would require less grading, resulting in less construction related PM_{10} emissions. Overall, air quality impacts would be less under this alternative.

Transportation/Traffic

This alternative would generate 552 ADTs, which would be approximately 96 percent less than that generated by the Proposed Project. The existing transportation system would be able to accommodate project traffic and no off-site improvements would be required. Traffic impacts would be significantly less than the Proposed Project.

Therefore, traffic impacts associated with this alternative would not trigger the need for additional lanes of travel along SR-76 and at no time would be considered significant and unmitigable.

Biological Resources

Because the entirety of the site would be subdivided into private lots, biological impacts would result from individual development on these lots and would be mitigated in accordance with the RPO. Compliance with the RPO would be attained through dedication of individually preserved areas which would likely be smaller and more fragmented than the proposed preserve. Therefore, impacts associated with on-site biological resources for this alternative would be greater than the Proposed Project.

Geology and Soils

The same geological conditions exist regardless of project design. This alternative would be subject to potentially significant impacts from liquefaction and rock slides. The same mitigation measures would apply to this alternative as the Proposed Project. Therefore, geological impacts associated with this alternative would be the same as the Proposed Project.

Cultural Resources

Under this alternative, the entire site would be fractioned into private lots resulting in significant cultural resources located within individual lots. The RPO-mandated open space easements for preservation of these resources would, likewise, be located within the individual lots, which would require fencing and signage to prevent intrusion and indirect impacts. Therefore, impacts associated with this alternative would be the same as the Proposed Project.

Noise

The Proposed Project would place residences adjacent to roadways where exterior and interior noise impacts are projected to exceed County standards resulting in potentially significant impacts. These impacts would be mitigated to less than significant through the implementation of mitigation measures including the construction of noise attenuation barriers and interior and exterior noise analysis prior to building. This alternative would generate 522 ADTs, which would be approximately 96 percent less than the Proposed Project. Therefore, traffic generated noise would be significantly less. This alternative could include lots adjacent to roadways; however, the lots would be large enough to assure that house pads are placed outside any areas that may exceed these noise limitations. Noise impacts could be avoided in their entirety through site design measures. Alternatively, any remaining impacts would be reduced to less than significant through similar mitigation measures as the Proposed Project. Therefore, noise impacts associated with this alternative would be less than the Proposed Project.

Hazards/Hazardous Materials

Like the Proposed Project, this alternative does not include the transport, emission, or disposal of hazardous materials. The potential for toxic impacts associated with the two on-site irrigation ponds, smudge pots, release of asbestos from demolition of the existing

structures on-site, the removal of the existing septic tanks and possible historic well would be the same for this alternative as the Proposed Project. Development and implementation of a FPP would be required for this alternative as well as the Proposed Project. Overall, impacts associated with hazards and hazardous materials would be similar to the Proposed Project.

5.4.3 Conclusion

The Groundwater Dependent (Development Consistent with the Groundwater Ordinance) Alternative would yield 46 residences, most likely dependent on private wells and on-site septic systems instead of sanitary sewer and water. An elementary school site and park would not be provided under this alternative. This alternative would avoid significant unmitigated impacts related to aesthetics, air quality, and transportation/traffic, as well as reduce significant and mitigated impacts associated with, geology and soils, cultural resources, noise, and hazards/hazardous materials for the Proposed Project. Impacts related to biological resources would be greater as there would be no provisions for the dedication of open space easements.

This alternative would not attain the following eight of the ten project objectives. This alternative would not provide a variety of housing types (Objective 1), provide a great increase in housing supply (Objective 2); preserve biological and visual resources (Objective 3); preserve on-going agriculture (Objective 5); provide educational and recreational opportunities (Objective 6), and provide permanent preservation of natural open spaces (Objective 8). This alternative will not require a LAFCO SOI determination nor selection of MWD to serve the Project Site (Objectives 9 and 10).

5.5 Analysis of the Reduced Grading Alternative

5.5.1 Description and Setting

The rationale for the selection of a Reduced Grading Alternative is to minimize alteration of the topography and maximize the preservation of biological and agricultural resources. The Reduced Grading Alternative would entail clustering development on the 89.5-acres of the Project Site with less than 15 percent slope gradient with all remaining land (approximately 300 acres) preserved as open space (Figure 5-4). In the 89.5-acre development area, approximately 51-acres could be developed with multi-family residences within General Plan Designation (10), Residential. The gross density calculates out to 22.3 units per acre. However, due to the need for roads, private drives, parking, grading etc, the product density will need to be around 24 to 30 units per acre to achieve the same number of units. It is likely that this will result in three-story multi-family buildings, with possible underground parking. The remaining 38.5-acre area would be utilized as a combined park and elementary school. This development would yield approximately 1,138 multi-family dwelling units (density of 22 units per acre). In accordance with the I-15 Corridor Scenic Preservation Guidelines, this alternative would include the application of a “B” Special Area Designator on each lot requiring preparation of a Site Plan for any type of development permit. This will assure conformance with the Guidelines.

The scope of development of this alternative would require water and sewer infrastructure, including development of a WWTP. This alternative would require annexation to a MWD, SDCWA, and MET and the construction of facilities related to the

provision of water and wastewater services. An elementary school and park site would be provided under this alternative. A trail system may also be provided with this alternative. Like the Proposed Project, the Reduced Grading Alternative would require both a General Plan and Specific Plan Amendment.

5.5.2 Comparison of the Effects of the Reduced Grading Alternative to the Proposed Project

Aesthetics

Under this alternative, development would take place on a smaller amount of acreage compared to the Proposed Project and would be concentrated entirely on the relatively flat valley floor. Three story structures would be required to accommodate these units which would contrast with the lower density single-family development in the area. The steep slopes and ridgelines would be maintained in their current state. Additionally, this alternative would keep approximately 300 acres of the Project Site, much of which is groves or sensitive biological habitat, as permanent open space. Direct visual impacts would be less than significant; however, when combined with cumulative projects, a significant contrast with the existing rural land uses would occur. Therefore, like the Proposed Project cumulative visual impacts would remain significant and unmitigable. The visual impacts associated with this alternative would similar to the Proposed Project.

Air Quality

Due to the fact that this alternative would consist of more units, it would generate more ADTs resulting in a greater amount of traffic related air quality impacts in comparison to the Proposed Project. Specifically, this alternative would generate 10,270 ADTs, compared to the 8,740 ADTs of the Proposed Project. However, in regards to construction emissions, because less grading is proposed, air quality impacts associated with construction would be less than the Proposed Project. Like the Proposed Project, this alternative would develop a community with densities above that contemplated by existing county plans. Therefore, this alternative would be inconsistent with air quality plans resulting in a significant and unmitigable impact. Overall, impacts associated with air quality would be similar for the Reduced Grading Alternative compared to the Proposed Project.

Transportation/Traffic

This alternative would generate 10,270 ADTs, compared to the 8,740 ADTs of the Proposed Project. Due to the concentrated nature of this development, a smaller amount of transportation infrastructure would be required on-site; however, the off-site improvements would be similar to the Proposed Project. This alternative would be required to mitigate for significant traffic impacts to the same degree as the Proposed Project. Based on timing of the Caltrans project for the widening of SR-76, traffic impacts associated with this alternative could be significant and unmitigable as with the Proposed Project.

Biological Resources

This alternative would preserve 300 acres of land in its current condition. A large portion of this preserved area is currently utilized for agriculture. Much of the preserved natural

habitat, including native vegetation, woodland, and grazing land that serves as habitat for a variety of species, would also be conserved under the Proposed Project. This alternative would comply with the proposed North County MSCP, actually enlarging the preserved area by a significant amount.

Impacts to wetlands and listed species off-site would be the same as the Proposed Project, requiring an HLP/Section 7 and state and federal permits. On-site impacts to the coastal California gnatcatcher would be reduced compared to the Proposed Project due to the greater buffer to development afforded by the preserved agricultural lands. Additionally, impacts to wildlife movement on-site would also be reduced given the increased area of undisturbed open space. Overall, impacts to biological resources associated with this alternative would be less than the Proposed Project.

Geology and Soils

The same geological conditions exist regardless of project design. This alternative would be subject to potentially significant impacts from liquefaction and rock slides. The same mitigation measures would apply to this alternative as the Proposed Project. Therefore, geological impacts associated with this alternative would be similar to the Proposed Project.

Cultural Resources

The Reduced Grading Alternative would develop the Project Site in the flatter areas and preserve the balance of the site as open space. Significant resources located in the flatter areas have been evaluated and identified as RPO significant; therefore, they would be required to be avoided and placed within an open space easement for preservation. This is the same as the Proposed Project. Mitigation measures for both this alternative and the Proposed Project would include the use of a site monitor to be present during grading to assure no additional resources are discovered and the capping and placement of the known sites in a conservation open space easement. Overall, impacts to cultural resources associated with the Reduced Grading Alternative would be similar to the Proposed Project.

Noise

Under this alternative, multi-family units would be located within the area containing the same noise exposure as the Proposed Project. This alternative would generate 10,270 ADTs, compared to the 8,740 ADTs of the Proposed Project. Like the Proposed Project, these potentially significant impacts would be mitigated to less than significant through the implementation of mitigation measures including the construction of noise attenuation barriers and the requirement of interior and exterior noise analysis prior to building. Therefore, both the Proposed Project and this alternative would result in similar noise-related impacts.

Hazards/Hazardous Materials

Like the Proposed Project, this alternative does not include the transport, emission, or disposal of hazardous materials. The potential for toxic impacts associated with the two on-site irrigation ponds, smudge pots, release of asbestos from demolition of the existing structures on-site, the removal of the existing septic tanks and possible historic well,

would be the same for this alternative as the Proposed Project. Development and implementation of a FPP would be required for this alternative as well as the Proposed Project. Additional mitigation would be required to provide fire protection for the three-story structures. Overall, impacts associated with hazards and hazardous materials would be similar to the Proposed Project.

5.5.3 Conclusion

The Reduced Grading Alternative would yield 1,138 three-story multi-family residential units, an increase of 241 units. An elementary school and park site would be provided under this alternative. This alternative would result in reducing the Proposed Project's significant and mitigated impacts related to biological resources. It would result in similar significant and unmitigated impacts to aesthetics, air quality, and transportation/traffic, and to significant and mitigated impacts to geology and soils, cultural resources, noise, hazards/hazardous materials.

This alternative would attain all but two project objectives. It would not meet the objective of providing a variety of housing because it would only offer a multi-family option (Objective 1). It would also not provide an opportunity for increasing a variety of housing (Objective 2).

5.6 Analysis of Alternatives Consistent with the San Diego County General Plan Update

The County is in the process of updating its General Plan, therefore, the following CEQA alternatives are based on the Draft Land Use Map and the Referral Map Alternatives. Each of these Maps contains varying densities of residential uses along with 1.8 acres of neighborhood commercial use. The Draft Land Use Map would allow a total of 848 units; whereas the Referral Map would allow a maximum of 382 units.

For purposes of comparing these alternatives to the Proposed Project, some assumptions need to be made. The General Plan Update is a broad planning document; therefore, the Maps are conceptual and show only land use classifications and density/intensity. They do not include site specific details for future development. Land uses on the Draft Maps cannot be strictly adhered to because the boundaries of the land use areas are conceptual and are not necessarily based on topography or property lines. Accessory/supporting land uses such as parks or schools within the project area are not specified, but it can be anticipated that these alternatives would include a school and park as needed. It is also reasonable to assume that future development would incorporate a wastewater treatment plant, trails and open space as with the Proposed Project.

The Project Site has many constraints including active agriculture, sensitive biological resources, steep slopes, cultural resources, and high visibility. In addition the Proposed Project applicant has negotiated a hardline preserve to be incorporated into the North County MSCP. The development footprint for the Proposed Project was designed to take these constraints into consideration. It is assumed, therefore, that the General Plan Update alternatives would maintain this same footprint, while layout of residential densities and overall number of units, along with neighborhood commercial use, would vary within this footprint as discussed below.

5.6.1 Description and Setting

According to the General Plan Update Draft Land Use Map Alternative, the Project Site would contain the following designations: Neighborhood Commercial; Rural Lands (RL-40); Semi-rural Residential (SR-2); Village Residential (VR-24) Village Residential (VR-20); Village Residential (VR-15); Village Residential (VR-7.3); Village Residential (VR-4.3) and Village Residential (VR-2.9). A potential concept design for this alternative is shown on Figure 5-5. This alternative would include a total of 848 residential units consisting of 149 single-family units and 699 multi-family residential units, in addition to a 1.8-acre neighborhood commercial center, 12.7-acre elementary school and 10.5-acre neighborhood park. Future development would also include trails, and natural and agricultural open space. This alternative would also require annexation to a MWD, SDCWA and MET, as well as construction of facilities, including a WWTP, in order to provide water and wastewater services to the Project Site.

In accordance with the I-15 Corridor Scenic Preservation Guidelines, this alternative would include the application of a "B" Special Area Designator on each lot requiring preparation of a Site Plan for any type of development permit. This will assure conformance with the Guidelines.

5.6.2 Comparison of the Effects of the General Plan Update Draft Land Use Map (Development Consistent with the San Diego County General Plan Update) Alternative to the Proposed Project

Aesthetics

Implementation of the General Plan Update Draft Land Use Map Alternative would result in a neighborhood commercial center and a mix of housing types, including single and multi-family units, totaling 848 dwelling units, an increase of 4 units compared to the Proposed Project. Similar to the Proposed Project, this level of development would contribute to the transformation of rural lands. As with the Proposed Project, direct impacts would be reduced through site design which places development in the less steep and less visible portions of the Project Site and design guidelines, which would be regulated through the "B" Special Area Designator. Like the Proposed Project, the cumulative conversion of a rural area to more intense land uses, would be significant and unmitigated. Thus, overall aesthetic impacts would be similar to the Proposed Project.

Air Quality

Implementation of the General Plan Update Draft Land Use Map Alternative would result in greater traffic related air quality impacts than the Proposed Project. The total number of units would be is greater by approximately 4 units, leading to a slight increase in the number of ADTs. Like the Proposed Project, this alternative would develop a community with densities above that contemplated by existing county plans. Therefore, this alternative would be inconsistent with air quality plans resulting in a significant, unmitigable impact.

The air quality impacts associated with construction would be the same as the Proposed Project. Implementation of standard fugitive dust control measures discussed in Chapter 2.2 would result in PM_{10} and $PM_{2.5}$ emissions that are less than significant. Overall, air

quality impacts associated with this alternative would be slightly greater than the Proposed Project due to an increase in traffic-generated emissions. Operational emissions for development consistent with the General Plan Update Draft Land Use Map were calculated using the URBEMIS 2007 computer program (Rimpo and Associates 2007). The same assumptions discussed in Section 2.2 were used. Table 5-2 compares the operational emissions for the Proposed Project and for this alternative.

As shown, emissions due to operation of the General Plan Update Draft Land Use Map Alternative would be slightly greater than emissions due to operation of the Proposed Project. Therefore, impacts would remain significant and unmitigable.

Traffic

This alternative would generate 10,438 ADT compared to the Proposed Project at 8,740 ADT (approximately 9,564 additional trips). It is estimated that this alternative would have direct impacts at no more than one additional intersection (SR-76/I-15 NB Ramp) and three segments (SR-76: Mission to Gird; SR-76: Sage to Old Hwy 395; SR-76: Horse Ranch Creek Road to Couser) compared to the Proposed Project. Thus, the General Plan Update Draft Land Use Map Alternative has the potential to result in more traffic impacts than the Proposed Project. Impacts would remain significant and unmitigable.

Biological Resources

Since this alternative would maintain the same development footprint as the Proposed Project, this alternative would provide the same biological open space consisting of the existing natural vegetation in the northern and eastern portions of the property and would contain a wetlands buffer for off-site wetlands. Impacts to sensitive habitats, species and wildlife movement would be mitigated similar to the Proposed Project. Like the Proposed Project, off-site improvements would be required to mitigate for construction relating to infrastructure improvements which would impact wetlands and listed species off-site. Overall, impacts to biological resources associated with this alternative would be similar to the Proposed Project.

Geology and Soils

The same geological conditions exist regardless of project design. This alternative would be subject to potentially significant impacts from liquefaction and rock slides. The same mitigation measures would apply to this alternative as the Proposed Project. Therefore, geological impacts associated with this alternative would be similar to the Proposed Project.

Cultural Resources

Sensitive cultural resources associated with archaeological site CA-SDI-682, an RPO significant resource would be required to be avoided and placed within an open space easement for preservation as with the Proposed Project. Mitigation measures for both this alternative and the Proposed Project would include the use of a site monitor to be present during grading to assure no additional resources are discovered and the capping and placement of the known sites in a conservation open space easement. Impacts to

cultural resources associated with this alternative would be the same as the Proposed Project.

Noise

Like the Proposed Project, development of the General Plan Draft Land Use Map Alternative would likely place residences within the same noise exposure areas, resulting in the need for noise barriers and interior and exterior noise attenuation. Barriers would be similar to those discussed in Section 3.5 and shown in Figures 3.5-4 and 3.5-7. Therefore, both the Proposed Project and this alternative would result in similar traffic noise related impacts.

The General Plan Draft Land Use Map proposes a 1.8-acre neighborhood commercial use adjacent to single- and multi-family uses. Commercial uses may include car washes, fast food restaurants, and auto repair facilities. Noise from these types of activities is considered normal environmental noises that are expected to occur within this type of land use. The San Diego Municipal Code generally regulates excessive noises resulting from these activities. Commercial uses that would involve noise-producing activities would have to demonstrate compliance with the existing performance standards provided in the County's Noise Ordinance. Thus, while exposure to traffic noise would be the same for this alternative and the Proposed Project, this alternative would introduce the potential for nuisance noise associated with a neighborhood commercial center.

Hazards/Hazardous Materials

The Proposed Project does not include the transport, emission, or disposal of hazardous materials. However, the introduction of a neighborhood commercial use would increase the potential for use of hazardous substances. Use of hazardous substances would be regulated through local, state and federal regulations. The potential for toxic impacts associated with the two on-site irrigation ponds, smudge pots, release of asbestos from demolition of the existing structures on-site, the removal of the existing septic tanks and possible historic well would be the same for this alternative as the Proposed Project. Development and implementation of a FPP would be required for this alternative as well as the Proposed Project. Overall, impacts associated with hazards and hazardous materials would be similar to the Proposed Project.

5.6.3 Conclusion

The General Plan Update Draft Land Use Map Alternative would allow the construction of a community consisting of 848 single and multi-family units and 1.8 acres of neighborhood commercial.

Due to the fact that the development footprint would be the same as the Proposed Project, impacts associated with aesthetics (significant and unmitigable), and impacts to biological resources, and cultural resources, geology and soils and hazards/hazardous materials (significant and mitigated) would be similar to the Proposed Project. Due to the slight increase in the number of units, this alternative would have slightly greater impacts associated with air quality, transportation/traffic and noise. Significant unmitigated impacts associated with the Proposed Project would remain. This alternative would attain all of the project objectives.

5.7 General Plan Update Referral Map Alternative (Development Consistent with the San Diego County General Plan Update)

5.7.1 Description and Setting

According to the General Plan Update Referral Map Alternative, the Project Site would contain the following designations: Neighborhood Commercial; Rural Lands (RL-40); Semi-rural Residential (SR-1); Semi-rural Residential (SR-2); Village Residential (VR-15); Village Residential (VR-10.9); Village Residential (VR-4.3); and Village Residential (VR-2.9). A potential concept design for this alternative is shown on Figure 5-6. This alternative would include a total of 382 residential units consisting of 172 single-family units and 210 residential units, in addition to a 1.8-acre neighborhood commercial center, 12.7-acre elementary school and 4.8-acre neighborhood park. Future development would also trails, and natural and agricultural open space. This alternative would also require annexation to a MWD, SDCWA and MET, as well as construction of facilities, including a WWTP, in order to provide water and wastewater services to the Project Site.

In accordance with the I-15 Corridor Scenic Preservation Guidelines, this alternative would include the application of a "B" Special Area Designator on each lot requiring preparation of a Site Plan for any type of development permit. This will assure conformance with the Guidelines.

5.7.2 Comparison of the Effects of the General Plan Update Referral Map Alternative (Development Consistent with the San Diego County General Plan Update)

Aesthetics

Implementation of the General Plan Update Referral Map Alternative would result in a neighborhood commercial center and in a mix of housing types, including single and multi-family units, totaling 382 dwelling units, or 462 fewer units than the Proposed Project. Similar to the Proposed Project, this level of development would result in fewer units yet still contribute to the transformation of rural lands. As with the Proposed Project, direct impacts would be reduced through site design, which places development in the less steep and less visible portions of the Project Site and design guidelines, which would be regulated through the "B" Special Area Designator. Like the Proposed Project, the cumulative conversion of a rural area to more intense land uses, would be significant and unmitigated. Thus, aesthetic impacts would be slightly reduced (due to fewer units), but generally similar to the Proposed Project.

Air Quality

Implementation of the General Plan Update Referral Map Alternative would result in less traffic-related air quality impacts than the Proposed Project. The total number of units is less by 462 units, leading to a decreased number of ADTs when compared to the Proposed Project. Like the Proposed Project, this alternative includes development in excess of that in the existing County plans. Therefore, like the Proposed Project, this alternative would also be inconsistent with air quality plans resulting in a significant, unmitigable impact.

The air quality impacts associated with construction would be the same as the Proposed Project. Implementation of standard fugitive dust control measures discussed in Chapter 2.2 would result in PM_{10} and $PM_{2.5}$ emissions that are less than significant. Overall, air quality impacts associated with this alternative would be slightly reduced, though generally similar to the Proposed Project.

Operational emissions for development consistent with the General Plan Update Referral Map were calculated using the URBEMIS 2007 computer program (Rimpo and Associates 2007). The same assumptions discussed in Section 2.2 were used. Table 5-3 compares the operational emissions for the Proposed Project and for this alternative.

As shown, emissions due to operation of the General Plan Update Referral Map Alternative would be less than emissions due to operation of the Proposed Project. Significant impacts associated with ROG in summer and winter months would be avoided. Like the Proposed Project, emissions would exceed the applicable thresholds for PM_{10} during the summer and winter months. Thus, air quality impacts associated with the General Plan Update Referral Map Alternative would be less than the Proposed Project.

Transportation/Traffic

This alternative would generate 6,727 ADT compared to the Proposed Project at 8,740 ADT (2,013 fewer trips). It is therefore estimated that this alternative would have the same direct impacts at one intersection and two segments as the Proposed Project. Although overall, traffic impacts associated with this alternative would be slightly less than the Proposed Project, based on the timing of the Caltrans project widening SR-76, impacts could still remain significant and unmitigable as with the Proposed Project.

Biological Resources

Since this alternative would maintain the same development footprint as the Proposed Project, this alternative would provide the same biological open space consisting of the existing natural vegetation in the northern and eastern portions of the property and would contain a wetland buffer for off-site wetlands. Impacts to sensitive habitats, species and wildlife movement would be mitigated similar to the Proposed Project. Like the Proposed Project, off-site improvements would be required to mitigate for construction relating to infrastructure improvements which would impact wetlands and listed species off-site. Overall, impacts to biological resources associated with this alternative would be similar to the Proposed Project.

Geology and Soils

The same geological conditions exist regardless of project design. This alternative would be subject to potentially significant impacts from liquefaction and rock slides. The same mitigation measures would apply to this alternative as the Proposed Project. Therefore, geological impacts associated with this alternative would be the same as the Proposed Project.

Cultural Resources

Sensitive cultural resources associated with archaeological site CA-SDI-682, an RPO significant resource would be required to be avoided and placed within an open space easement for preservation as with the Proposed Project. Mitigation measures for both this alternative and the Proposed Project would include the use of a site monitor to be present during grading to assure no additional resources are discovered and the capping and placement of the known sites in a conservation open space easement. Impacts to cultural resources associated with this alternative would be the same as the Proposed Project.

Noise

Like the Proposed Project, development of the General Plan Referral Map Alternative would likely place residences (though potentially fewer in number) within the same noise exposure areas, resulting in the need for noise barriers and interior and exterior noise attenuation. Barriers would be similar to those discussed in Section 3.5 and shown in Figures 3.5-4 and 3.5-7. Therefore, both the Proposed Project and this alternative would result in similar traffic noise related impacts.

The General Plan Draft (Referral Map) proposes a 1.8-acre neighborhood commercial use adjacent to single- and multi-family uses. Commercial uses may include car washes, fast food restaurants, and auto repair facilities. Noises from these types of activities are considered normal environmental noises that are expected to occur within this type of land use. The San Diego Municipal Code generally regulates excessive noises resulting from these activities. Commercial uses that would involve noise-producing activities would have to demonstrate compliance with the existing performance standards provided in the County's Noise Ordinance. Thus, while exposure to traffic noise would be the same for this alternative and the Proposed Project, this alternative would introduce the potential for nuisance noise associated with a neighborhood commercial center.

Hazards/Hazardous Materials

The Proposed Project does not include the transport, emission, or disposal of hazardous materials. However, the introduction of a neighborhood commercial use would increase the potential for use of hazardous substances. Use of hazardous substances would be regulated through local, state and federal regulations. The potential for toxic impacts associated with the two on-site irrigation ponds, smudge pots, release of asbestos from demolition of the existing structures on-site, the removal of the existing septic tanks and possible historic well would be the same for this alternative as the Proposed Project. Development and implementation of a FPP would be required for this alternative as well as the Proposed Project. Overall, impacts associated with hazards and hazardous materials would be similar to the Proposed Project.

5.7.3 Conclusion

The General Plan Update Referral Map Alternative would allow the construction of a community with a 1.8-acre neighborhood commercial center and single and multi-family residences totaling 382 dwelling units.

Due to the fact that development footprint would be the same as the Proposed Project, impacts associated with significant and unmitigated aesthetics, and impacts to significant and mitigated biological resources, and cultural resources would be similar to the Proposed Project. This alternative would also result in similar impacts associated with geology and soils and hazards/hazardous materials (significant and mitigated). Given the reduction in the number of traffic trips, this alternative would have less impact associated with air quality and transportation/traffic, although they would remain significant and unmitigated. With the addition of the neighborhood commercial use, this alternative would have greater impacts associated with noise.

This alternative would attain all of the project objectives. However, Objectives 1 (variety of residential land uses) and 2 (increasing housing supply) would not be reached at the same level as the Proposed Project.

5.8 Alternatives Associated with Horse Ranch Creek Road

The following alternatives address realignment and/or reconfiguration of Horse Ranch Creek Road, compared with the Proposed Project. A matrix comparing the impacts of each of these alternatives with the Proposed Project is shown on Table 5-4.

5.8.1 Raised Elevation of Horse Ranch Creek Road Alternative

Under this alternative, the Proposed Project would be conditioned to elevate the profile of Horse Ranch Creek Road by roughly two to six feet over the area of concern in order to reduce the need for further excavation. All other aspects of the Proposed Project would remain the same.

5.8.1.1 Comparison of the Effects of the Raised Elevation Alternative

Aesthetics

Under the Raised Elevation Alternative, the only change from the Proposed Project would be raising the elevation of Horse Ranch Creek Road by two to six feet in certain locations. While raising the road would make it slightly more visible to viewers from SR-76 and future on and off-site residents, aesthetic impacts would be similar to the Proposed Project.

Air Quality

Development of this alternative would result in the same land uses under the Proposed Project and would therefore, generate the same emissions. Accordingly, air quality impacts associated with the Raised Elevation Alternative would be the same as the Proposed Project.

Transportation/Traffic

Development of the Raised Elevation Alternative would result in the same land uses under the Proposed Project, and would therefore, generate the same number of ADT. The elevated road would be subject to the same public road design standards as the Proposed Project and would be designed to meet sight distance requirements. Therefore, the implementation of this alternative would not result in an increase in traffic

or traffic safety standards compared to the Proposed Project. Accordingly, impacts under this alternative would be the same as the Proposed Project.

Biological Resources

The proposed development footprint would remain the same. Therefore, biological impacts associated with this alternative would be the same as those associated with the Proposed Project.

Geology and Soils

Implementation of the Proposed Project would result in the need for application of standard remediation/building techniques in response to on-site landslide hazard, liquefaction and settlement/collapse. The same remediation/building techniques would be required under this alternative; although, excavation would be somewhat reduced in those areas where the road would be raised. Overall geological impacts associated with this alternative would similar to those associated with the Proposed Project.

Cultural Resources

Under this alternative, Horse Ranch Creek Road would be elevated by two to six feet to reduce excavation in the vicinity of the discovered human remains. Elevating the road with fill material would lessen potential impacts to unknown cultural resources identified under the Proposed Project and would avoid any further disturbance of the location where the human remains were discovered in January. With respect to those remains, pursuant to CEQA Guideline 15126.4(b)(3), impacts relating to the remains will be mitigated by preservation in place, consistent with the discussion in the Draft EIR regarding potential discovery of remains, so there is not a remaining significant impact. Potential impacts associated with cultural resources in the vicinity of the Road have thus been mitigated to a less than significant level, consistent with the discussion in the Draft EIR, and this alternative would further reduce those impacts. However, this alternative would laterally extend the side slopes of Horse Ranch Creek Road, as a result of the increased fill, which could result in encroachment into the nearby on-site Loci. Overall, impacts to cultural resources under this alternative would be similar to those associated with the Proposed Project (reduced in some respects, potentially increased in some respects, but still less than significant).

Noise

Development of the Raised Elevation Alternative would be expected to result in similar noise impacts compared to the Proposed Project because development of this alternative would result in the same land uses. By elevating the road, noise impacts may increase due to the lack of interruption in the transmission path (e.g. elevated road would be above existing noise attenuation factors such as existing landscaping or topography). While the elevated road might increase noise and vibration impacts to the future adjacent residents off-site, sound barriers similar to those required for the Proposed Project would be expected to lower noise impacts to less than significant levels at residences. Overall, impacts associated with this alternative would be similar to those associated with the Proposed Project.

Hazards/Hazardous Material

Development of the Raised Elevation Alternative would result in the same land uses as the Proposed Project. Therefore, uses associated with the transport, emission, or disposal of hazardous materials would not change and impacts would be the same as the Proposed Project.

5.8.1.2 . Conclusion

The Raised Elevation of Horse Creek Ranch Road Alternative could reduce less than significant impacts to Cultural Resources so long as the raising of the roadway's elevation would not encroach into on-site Loci in proximity to the roadway due to increased slopes along Horse Ranch Creek Road. Environmental impacts would be similar for the issues of aesthetics, air quality, traffic/transportation, biology, geology and soils, noise and hazards. The Raised Elevation Alternative would meet all Proposed Project objectives.

5.8.2 Western Alignment for Horse Ranch Creek Road Alternative

Under this alternative, Horse Ranch Creek Road would be realigned approximately 450 feet west of the current alignment (approximately 300 feet from the western property line), in order to avoid additional excavation in proximity to the discovered human remains. This alternative would result in the loss of multi-family units and the relocation of the WWTP due to the realignment of the road to the west within PA1. The WWTP would be located along SR-76 slightly to the east of the current proposed location. With the alignment of Horse Ranch Creek Road moved to the west, this alternative would result in an 85 percent reduction of the proposed 164 multi-family units in PA1; thereby reducing the multi-family units in Planning Area 1 by approximately 140 units, from 164 units to approximately 24 units, and reducing the total number of housing units from 844 units to approximately 704 units (overall reduction of 17 percent). All other aspects of the Proposed Project would remain the same.

5.8.2.1 Comparison of the Effects of the Western Alignment Alternative

Aesthetics

Under the Western Alignment Alternative, the only deviation from the development of the Proposed Project would be the realignment of Horse Ranch Creek Road west by approximately 450 feet. Viewer response and sensitivity would not change as analyzed under the Proposed Project. Therefore, aesthetic impacts would be similar to the Proposed Project.

Air Quality

Development of the Western Alignment Alternative would result in the same land uses under the Proposed Project, but with a 17 percent reduction in units. Therefore, air emissions associated with construction and operation of the Proposed Project would decrease. While there would be a small reduction in the air emissions associated with this alternative, the significant air quality impacts would not be substantially lessened compared to the Proposed Project. Overall, air quality impacts would remain significant and unavoidable, similar to the Proposed Project.

Transportation/Traffic

Development of the Western Alignment Alternative would consist of 140 fewer multi-family units or a 17 percent reduction compared to the Proposed Project. As a result, this alternative would generate 1,120 less ADT. Caltrans was asked for preliminary feedback relating to this alternative. In their letter dated April 28, 2011, Caltrans explained that the "preferred design… for major roadways is to maintain signal spacing of a half-mile, particularly for new developments and roadway connections." (Caltrans Letter, April 28, 2011). This design preference is set forth in Section 205.1 of the Highway Design Manual which addresses the standard minimum criteria for locating access openings. Specifically, the section requires that "access openings should not be spaced closer than one-half mile to an adjacent public road intersection or to another private access opening that is wider than 30-feet." Caltrans has found that longer access spacing reduces delay and travel time and supports higher volume demands. (Caltrans Letter, April 28, 2011). Therefore, this alternative would be inconsistent with Caltrans roadway separation requirements.

Under the currently proposed location of SR-76/Horse Ranch Creek Road, traffic operation is expected to operate at a LOS C/D. A reduction in spacing resulting from the relocating of Horse Ranch Creek Road closer to Pankey Road would likely result in an increase in traffic delay and increase impacts to the operation of SR-76 requiring further improvements to SR-76. Additionally, traffic safety impacts due to an increased conflict with standard separation requirements could occur. While there would be a small reduction in the ADT associated with this alternative, street segment and intersection impacts would not be substantially lessened compared to the Proposed Project. However, the inconsistency with Caltrans standards and impacts to the operation of SR-76 would be greater than the Proposed Project. Overall, traffic impacts would be greater with this alternative compared to the Proposed Project.

Biological Resources

Development under this alternative would relocate Horse Ranch Creek Road into area planned for residential development under the Proposed Project. While specific environmental review has not been completed for this alternative, preliminary assessment based on EIR Figure 3.7-1b, the realignment would impact similar habitat as the proposed alignment. Therefore, biological impacts would be similar to the Proposed Project.

Geology and Soils

Implementation of the Proposed Project would result in the need for application of standard remediation/building techniques in response to on-site landslide hazard, liquefaction and settlement/collapse. The same remediation/building techniques would be required under this alternative. Therefore, overall geological impacts associated with this alternative would be the same as the Proposed Project.

Cultural Resources

The Western Alignment Alternative would realign Horse Ranch Creek Road 450 feet west. This would avoid further impacts to the area where human remains were discovered, but impacts relating to those remains are already mitigated to a less than

significant level by preservation in place. The grading activities associated with the Western Alignment Alternative would result in the same possibility of unearthing of previously unknown resources. A mitigation monitoring program, like the one included in the Proposed Project, would ensure that potentially significant impacts to Cultural Resources occurring as a result of this alternative would be mitigated to less than significant levels. Therefore, impacts to Cultural Resources associated with this alternative would be the same as those identified for the Proposed Project.

Noise

Development of the Western Alignment Alternative would result in a 17 percent reduction in units that could generate traffic noise. While there would be a slight reduction in noise levels associated with this alternative, the significant noise impacts would not be substantially lessened compared to the Proposed Project. The realigned road would result in noise and vibration impacts to the future adjacent residents; therefore, sound barriers similar to those required for the Proposed Project would be expected to lower noise impacts to less than significant levels at residences. Overall, noise impacts associated with this alternative would be similar to those associated with the Proposed Project.

Hazards/Hazardous Material

Development of the Western Alignment Alternative would result in the same mix of land uses, although the total number of units would be reduced compared to the Proposed Project. Therefore, uses associated with the transport, emission, or disposal of hazardous materials would not change. In addition, the risk of wildfire would be the same as the Proposed Project and an FPP would be required for this alternative. Therefore, impacts would be the same as the Proposed Project.

5.8.2.2 . Conclusion

The Western Alignment of Horse Ranch Creek Road Alternative would not reduce any significant impacts associated with the Proposed Project. Environmental impacts would be similar for the issues of aesthetics, air quality, biology, geology and soils, cultural resources, noise and hazards. Impacts to traffic/transportation, specifically safety related, would be increased over the Proposed Project due to conflicts with Caltrans standard specification requirements.

The Western Alignment Alternative would meet most of the Proposed Project objectives; however, the removal of the multi-family homes currently located in the southern portion of the Proposed Project would result in the project's inability to meet objectives relating to providing a variety of housing types (Objectives 1 and 2). Additionally, the realignment of Horse Ranch Creek Road closer to the existing Pankey Road would be inconsistent with Caltrans roadway separation requirements.

5.8.3 Reconfigured Alignment of Horse Ranch Creek Road Alternative

Under this alternative, the southern segment of Horse Ranch Creek Road (from Pankey Place south to SR-76), would be eliminated. The reconfiguration would increase the utilization of the existing Pankey Road/SR-76 intersection. As indicated by Caltrans, this alternative would require the following road improvements to accommodate the traffic

flow: dual left turn lanes for eastbound to northbound traffic at Pankey Road/SR-76; six-lanes of through traffic from I-15 east through the Pankey Road/SR-76 intersection; and the widening of the SR-76 over-crossing Horse Ranch Creek Road. Additionally, Pankey Place would be widened from a two-lane road to a Major 4-lane road (as defined by the County) to accommodate the additional traffic. The elimination of Horse Ranch Creek Road at this location would also remove access to the WWTP as currently proposed. Access to the WWTP would be provided either via entrance from SR-76 or via connection to an existing private road to the east. In order to accommodate the reconfigured roadways and access to the WWTP, the proposed 164 multi-family units would not be developed within Planning Area 1, reducing the total housing provided by the project from 844 units to 680 units (20 percent reduction).

5.8.3.1 Comparison of the Effects of the Reconfigured Alternative

Aesthetics

Under the Reconfigured Alignment Alternative, land uses for the Proposed Project would be reduced from 844 units to 680 units. The reduction of residential units may reduce visual effects related to the short-term construction period, as well as long-term cumulative impacts related to change in the surrounding viewshed; however, viewer response and sensitivity would not change as analyzed under the Proposed Project. Therefore, aesthetic impacts would be similar to the Proposed Project for this issue.

Air Quality

Under the Reconfigured Alignment Alternative, the 168 multi-family units, in the southern portion of the Project Site, would be eliminated, resulting in a 20 percent reduction in the total number of units. Therefore, air emissions associated with construction and operation of the Proposed Project would decrease. While there would be a small reduction in the air emissions associated with this alternative, the significant air quality impacts would not be substantially lessened compared to the Proposed Project. Overall, air quality impacts would remain significant and unavoidable, similar to the Proposed Project.

Transportation/Traffic

Development of the Reconfigured Alignment Alternative would consist of 168 fewer multi-family units or a 20 percent reduction compared to the Proposed Project. As a result, this alternative would generate 1,344 less ADT.

Under the Reconfigured Alignment Alternative, the southern segment of Horse Ranch Creek Road (from Pankey Place, south to SR-76), would be eliminated. The reconfiguration would direct traffic to Pankey Place via the Pankey Road/SR-76 intersection. Pankey Place would require widening from a two-lane road to a four-lane road to accommodate the additional traffic. The intersection of Pankey Road/SR-76 would need significant improvements to accommodate additional traffic not anticipated under the road configuration for the Proposed Project. Due to the funneling of project direct and cumulative traffic towards one intersection (Pankey Road/ SR-76) rather than two intersections as analyzed under the Proposed Project, traffic levels would be significant and potentially unmitigable due to the infeasibility of the road improvements required to reduce the impacts. While there would be a small reduction in the ADT

associated with this alternative, street segment and intersection impacts would not be substantially lessened compared to the Proposed Project. However, due to the significant impact to the Pankey Road/ SR-76 intersection, impacts would be greater than the Proposed Project. Overall, traffic impacts would be greater with this alternative compared to the Proposed Project.

Biological Resources

Under this alternative, the widening of Pankey Place would cause an increase in impacts to riparian and wetland vegetation habitat, above what was analyzed for the proposed project because the width of the roadway would be increased from two lanes to four lanes. Additionally, there would be an increase in indirect impacts to sensitive species due to increased construction associated with the road improvements. Therefore, biological impacts resulting from this alternative would be greater than those associated with the Proposed Project.

Geology and Soils

Implementation of the Proposed Project would result in the need for application of standard remediation/building techniques in response to on-site landslide hazard, liquefaction and settlement/collapse. The same remediation/building techniques would be required under this alternative although there would be a wider footprint. Therefore, overall geological impacts associated with this alternative would be similar to those associated with the Proposed Project.

Cultural Resources

Under this alternative, the southern segment of Horse Ranch Creek Road would be eliminated in order to further avoid potential cultural resources within the area where human remains were recently discovered. As noted above, impacts relating to such resources are already mitigated, however, by preservation in place. Grading activities associated with the Reconfigured Alignment Alternative may result in the possible unearthing of previously unknown resources. A mitigation monitoring program, like the one included in the Proposed Project, would ensure that potentially significant impacts to Cultural Resources occurring as a result of this alternative would be mitigated to less than significant levels. Therefore, impacts to Cultural Resources associated with this alternative would be the same as those identified for the Proposed Project.

Noise

Under the Reconfigured Alignment Alternative, the southern segment of Horse Ranch Creek Road, would be eliminated and there would be a 20 percent reduction in units, which could otherwise generate traffic noise. While there would be a slight reduction in noise levels associated with this alternative, the significant noise impacts would not be substantially lessened compared to the Proposed Project. The reconfigured road would also result in noise and vibration impacts to the future adjacent residents; therefore, sound barriers similar to those required for the Proposed Project would be expected to lower noise impacts to less than significant levels at residences. Overall, impacts associated with this alternative would be similar, to those associated with the Proposed Project.

Hazards/Hazardous Material

Development of the Reconfigured Alignment Alternative would result in the same mix of land uses, although the total number of units would be reduced compared to the Proposed Project. Therefore, uses associated with the transport, emission, or disposal of hazardous materials would not change. In addition, the risk of wildfire would be the same as the Proposed Project and an FPP would be required for this alternative. Therefore, impacts would be the same as the Proposed Project.

5.8.2.2 . Conclusion

The Reconfigured Alignment Road Alternative would result in similar impacts for the issues of aesthetics, air quality, geology and soils, cultural resources, noise, and hazards. Traffic/Transportation impacts would be increased under this alternative due to the elimination of the segment and intersection of Horse Ranch Creek Road and SR-76. Project and cumulative traffic would be directed to one intersection along SR-76 and likely cause the segments and intersections to operate at failing levels. Biological impacts would also be increased due to road improvements and increased traffic. These improvements would increase direct and indirect impacts to sensitive wetland habitats and species.

The Reconfigured Alignment Alternative would meet the majority of the Proposed Project's objectives. The removal of the multi-family homes currently located in the southern portion of the Proposed Project would result in the project's inability to meet objectives relating to providing a variety of housing types (Objectives 1 and 2), and preserve sensitive habitat (Objective 3).

5.8.4 Matrix of Impacts

Table 5-4 provides a comparison of the impacts associated with the three Horse Ranch Creek Road Alternatives as compared to the Proposed Project.

TABLE 5-4
COMPARISON OF HORSE RANCH CREEK ROAD ALTERNATIVE IMPACTS TO PROPOSED PROJECT IMPACTS

Environmental Issue	Raised Road	Western Alignment	Reconfigured Alignment
Aesthetics	Similar	Similar	Similar
Air Quality	Similar	Similar	Similar
Traffic/Transportation	Similar	Greater	Greater
Biology	Similar	Similar	Greater
Geology and Soils	Similar	Similar	Similar
Cultural	Similar	Similar	Similar
Noise	Similar	Similar	Similar
Hazards	Similar	Similar	Similar

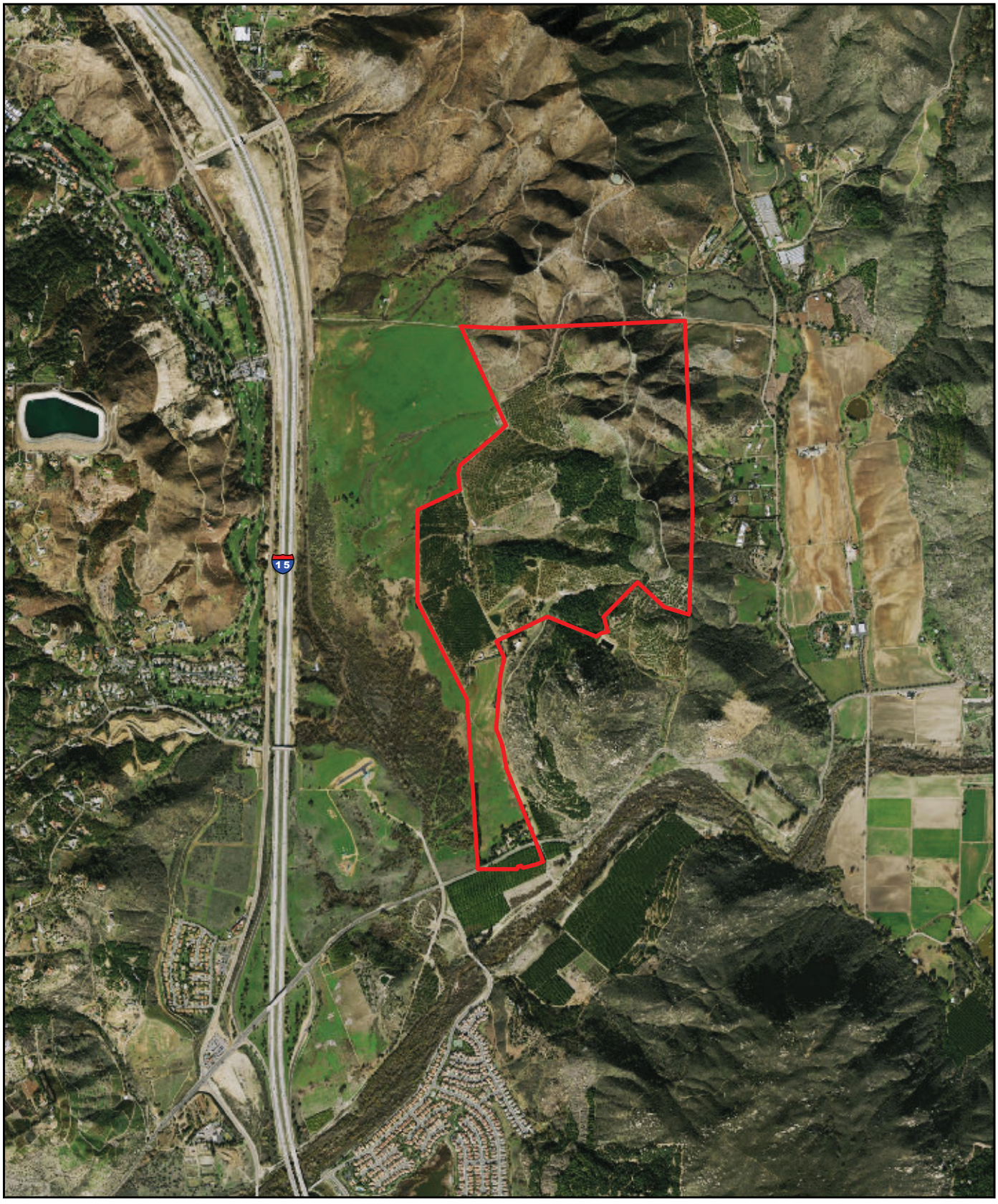
5.9 Environmentally Superior Alternative

Although the No Project (No Development) Alternative and the No Project (Development Consistent with the Adopted General Plan) Alternative would result in reduced environmental impacts compared to the Proposed Project, Section 15126.6(e)(2) of the

State CEQA Guidelines requires identification of an alternative other than the No Project Alternative as the environmentally superior alternative. As such, the Reduced Grading Alternative would be considered the environmentally superior alternative due to its potential for maximizing retention of the natural landform and steep hillsides and preservation of biological and agricultural resources.

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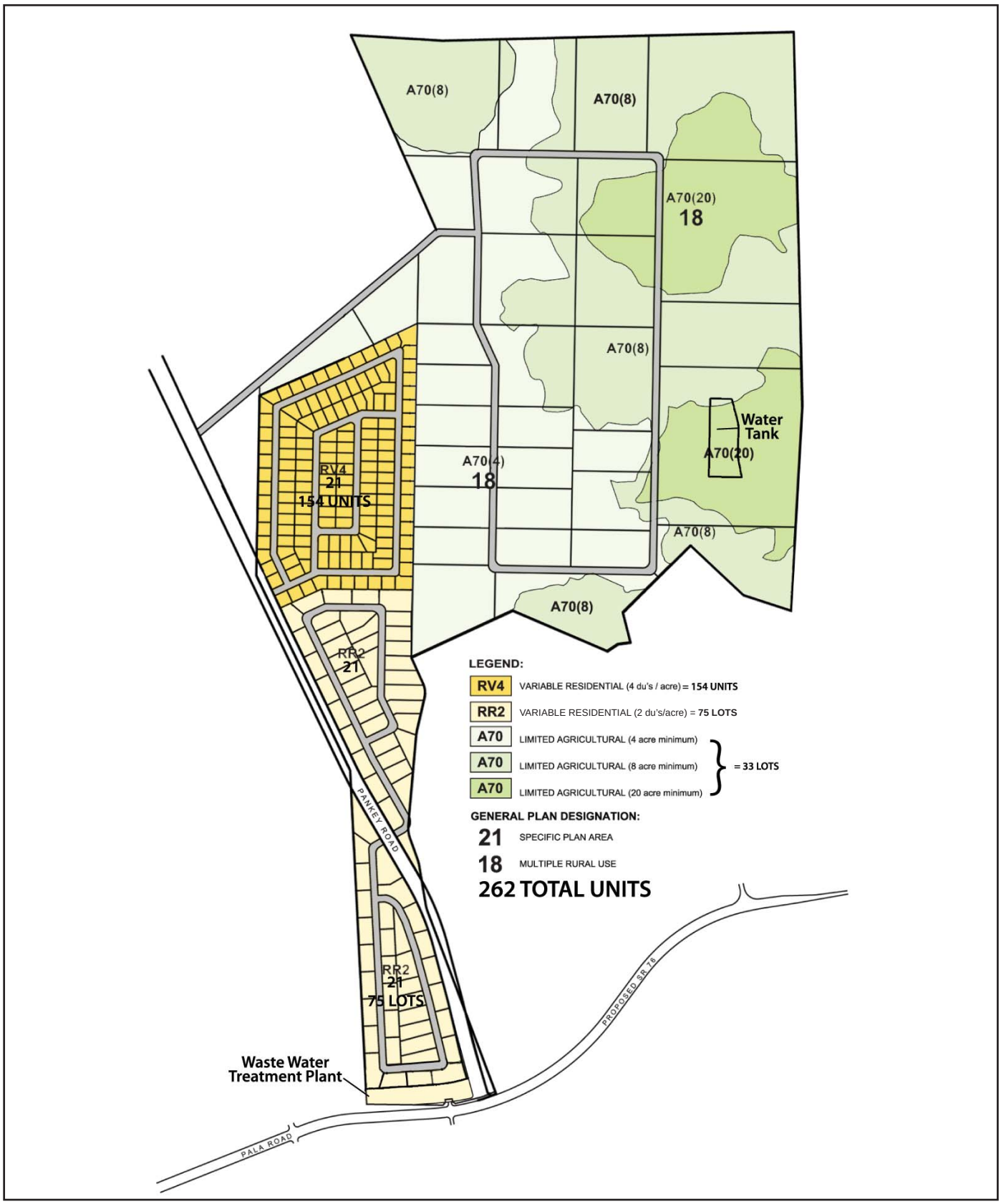
Project Boundary

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FIGURE 5-1

Alternative #1, No Development



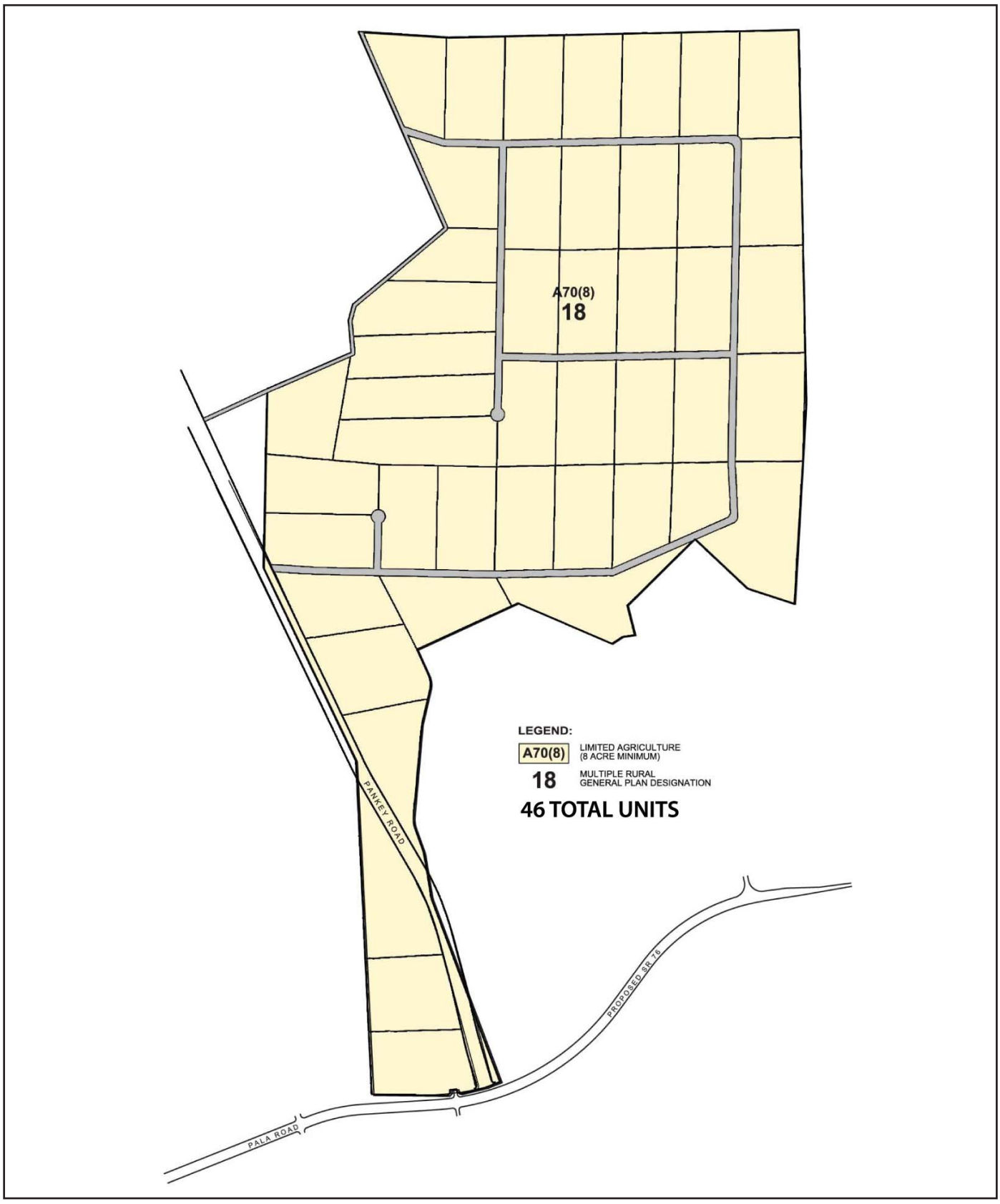
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FIGURE 5-2

Alternative #2 Existing General Plan

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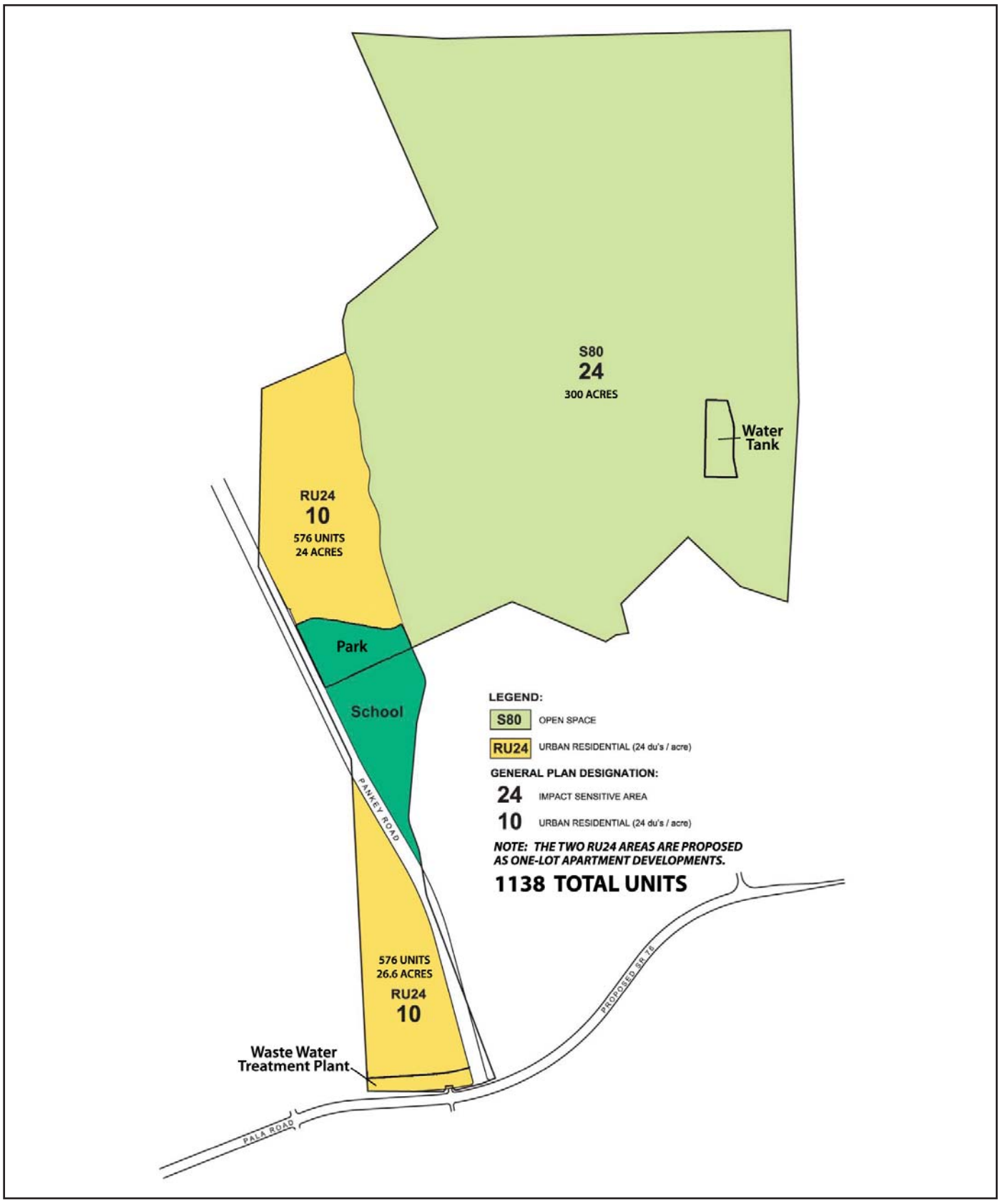
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FIGURE 5-3

Alternative #3 Groundwater Dependent

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FIGURE 5-4
Alternative #4 Reduced Grading

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Map Source: Rick Engineering Company, June 2009

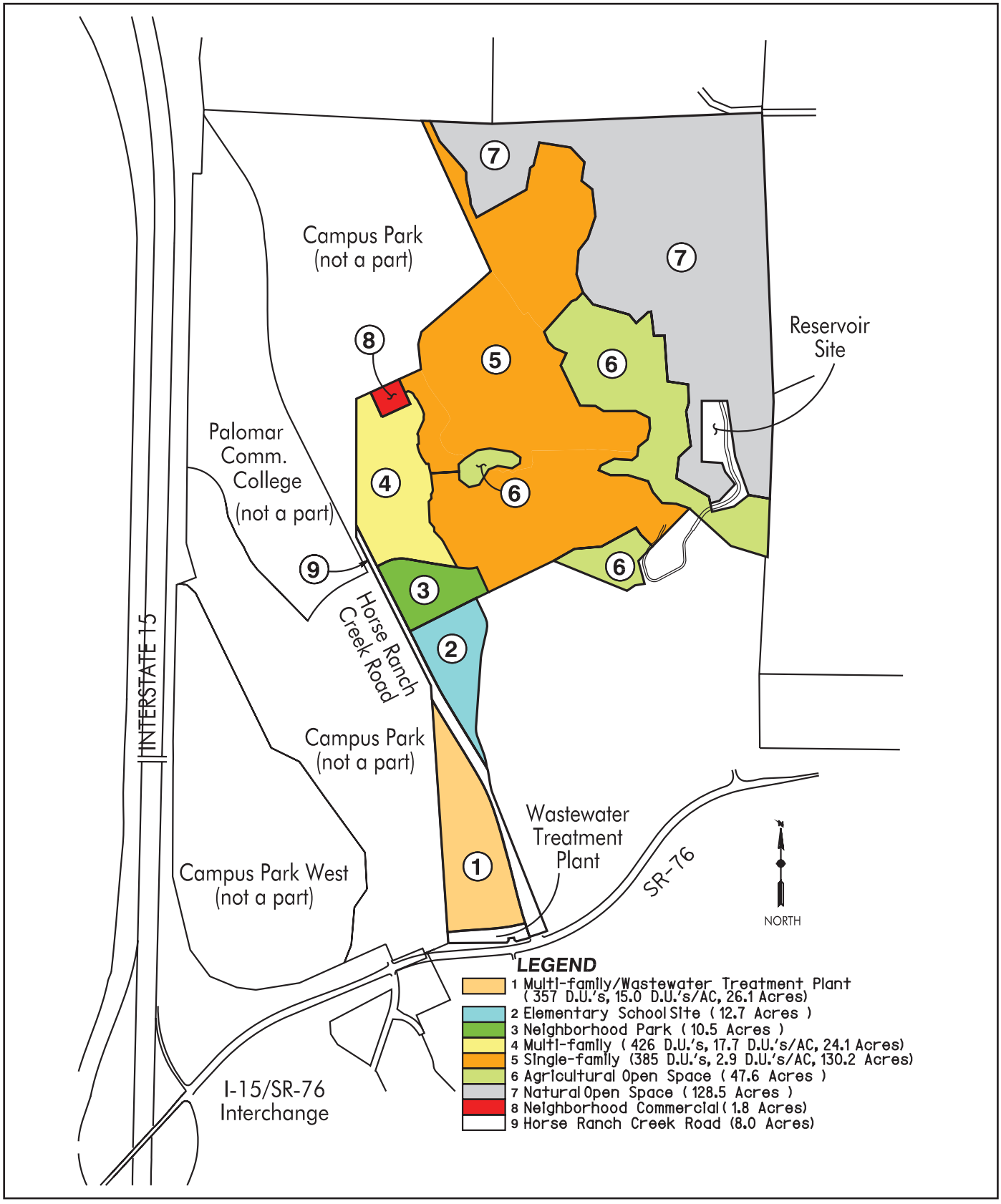


FIGURE 5-5

General Plan Update Draft Land Use Map Alternative

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Map Source: Rick Engineering Company, June 2009

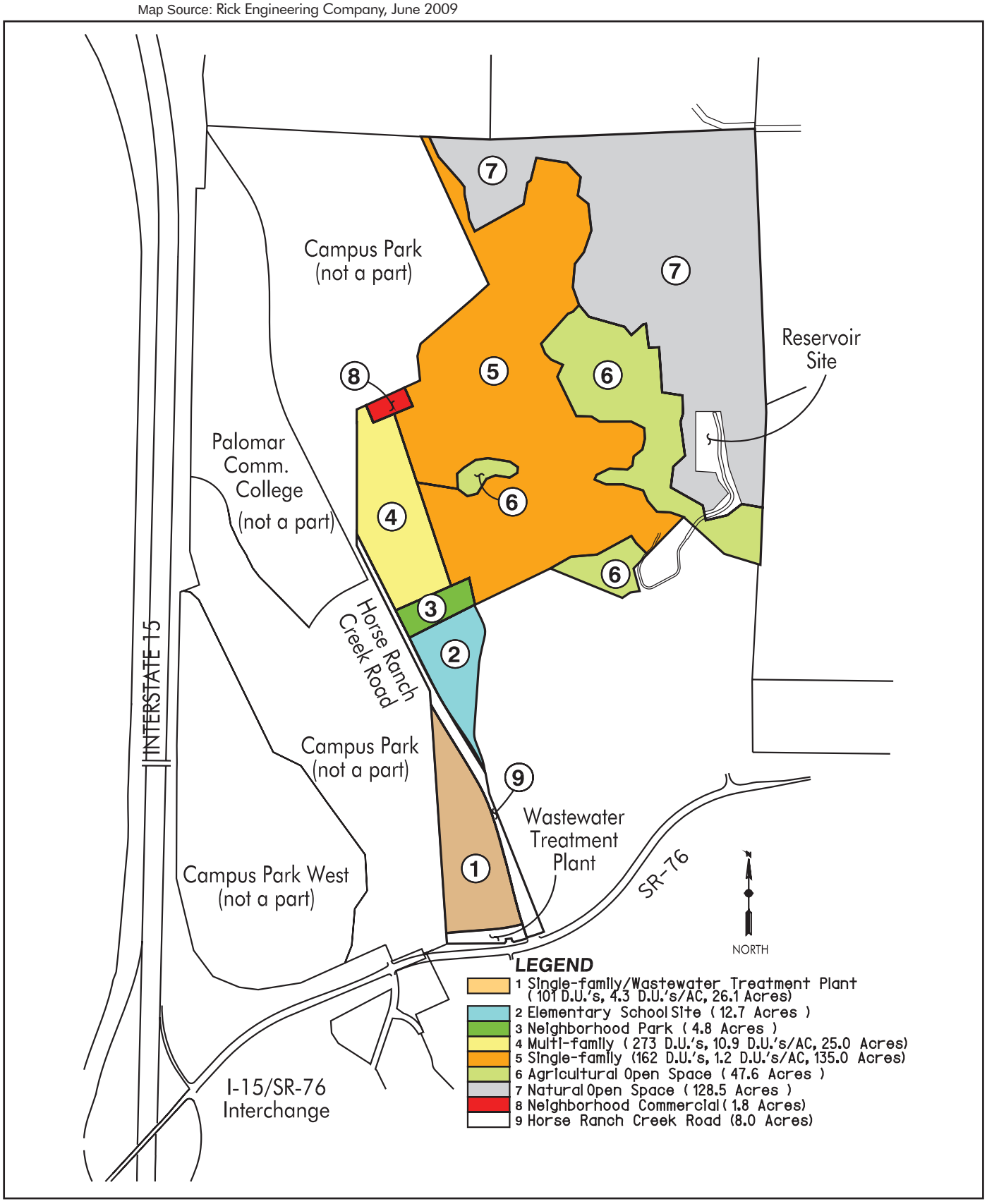


FIGURE 5-6

General Plan Update Referral Map Alternative

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TABLE 5-1
COMPARISON SUMMARY OF ALTERNATIVES AND THE PROPOSED PROJECT

Issue	No Project (No Development) Alternative	No Project (Consistent w/ Adopted General Plan Alternative	Groundwater Dependent Alternative	Reduced Grading Alternative	General Plan Update Draft Land Use Map (March 2008) Alternative	General Plan Update Referral Map (May 2008) Alternative
Aesthetics	Impacts would be reduced from significant and unmitigable cumulative impacts to less than significant levels	Cumulative impacts would remain significant and unmitigable	Impacts would be reduced from significant and unmitigable cumulative impacts to less than significant levels	Cumulative impacts would remain significant and unmitigable	Cumulative impacts would remain significant and unmitigable	Cumulative impacts would remain significant and unmitigable
Air Quality	Impacts would be reduced from significant and unmitigable to less than significant levels	Impacts would be reduced from significant and unmitigable to less than significant levels	Impacts would be reduced from significant and unmitigable impacts to less than significant levels	Impacts would remain significant and unmitigable	Impacts would be greater than Proposed Project and remain significant and unmitigable	Impacts would be less than Proposed Project but remain significant and unmitigable

TABLE 5-1
COMPARISON SUMMARY OF ALTERNATIVES AND THE PROPOSED PROJECT
(CONTINUED)

Issue	No Project (No Development) Alternative	No Project (Consistent w/ Adopted General Plan Alternative	Groundwater Dependent Alternative	Reduced Grading Alternative	General Plan Update Draft Land Use Map (March 2008) Alternative	General Plan Update Referral Map (May 2008) Alternative
Transportation/ Traffic	Impacts would be reduced from significant and unmitigable to less than significant levels	Impacts would be less than Proposed Project; however, like the Proposed Project, the timing of the Caltrans widening project (SR-76) could result in significant and unmitigable impacts.	Impacts would be less than Proposed; at no time would impacts be considered significant and unmitigable	Based on the timing of the Caltrans widening project (SR-76) impacts could remain significant and unmitigable	Impacts would be greater than Proposed Project; based on the timing of the Caltrans widening project (SR-76) impacts could remain significant and unmitigable	Impacts would be less than Proposed Project; however, like the Proposed Project, the timing of the Caltrans widening project (SR-76) could result in significant and unmitigable impacts
Biological Resources	Impacts would be less than Proposed Project	Impacts would be greater than Proposed Project	Impacts would be greater than Proposed Project	Impacts would be less than Proposed Project	Impacts would be the same as Proposed Project	Impacts would be the same as Proposed Project
Agricultural Resources	Impacts would be less than Proposed Project	Impacts would be greater than Proposed Project	Impacts would be greater than Proposed Project	Impacts would be less than Proposed Project	Impacts would be the same as Proposed Project	Impacts would be the same as Proposed Project
Geology and Soils	Impacts would be less than Proposed Project	Impacts would be the same as Proposed Project	Impacts would be the same as Proposed Project	Impacts would be the same as Proposed Project	Impacts would be the same as Proposed Project	Impacts would be the same as Proposed Project

TABLE 5-1
COMPARISON SUMMARY OF ALTERNATIVES AND THE PROPOSED PROJECT
(CONTINUED)

Issue	No Project (No Development) Alternative	No Project (Consistent w/ Adopted General Plan Alternative	Groundwater Dependent Alternative	Reduced Grading Alternative	General Plan Update Draft Land Use Map (March 2008) Alternative	General Plan Update Referral Map (May 2008) Alternative
Cultural Resources	Impacts would be less than Proposed Project	Impacts would be the same as Proposed Project	Impacts would be the same as Proposed Project	Impacts would be the same as Proposed Project	Impacts would be the same as Proposed Project	Impacts would be the same as Proposed Project
Noise	Impacts would be less than Proposed Project	Impacts would be less than Proposed Project	Impacts would be less than Proposed Project	Impacts would be the same as Proposed Project	Impacts would be greater than Proposed Project	Impacts would be greater than Proposed Project
Hazards/Hazardous Materials	Impacts would be less than Proposed Project	Impacts would be the same as Proposed Project	Impacts would be the same as Proposed Project	Impacts would be the same as Proposed Project	Impacts would be the same as Proposed Project	Impacts would be the same as Proposed Project

TABLE 5-2
COMPARISON OF OPERATIONAL EMISSIONS FOR THE PROPOSED PROJECT AND GENERAL PLAN UPDATE LAND USE ALTERNATIVE (pounds/day)

		Proposed Project			Development Consistent with General Plan Update Draft Land Use Map			
Season	Pollutant	Area Source Emission	Operational (Vehicle) Emission	Total Emission	Area Source Emission	Operational (Vehicle) Emission	Total Emission	SDAPCD Significance Threshold[2]
Summer	ROG	54	37	**91**	71	53	**124**	75
	NOx	16	33	49	19	49	68	250
	CO	30	386	416	34	573	**607**	550
	SOx[1]	0	1	1	0	1	1	250
	PM10	0	151	**151**	0	226	**226**	100
	PM2.5	0	29	30	0	44	44	55
Winter	ROG	51	35	**86**	67	52	**119**	75
	NOx	22	49	71	26	73	99	250
	CO	11	382	393	13	569	**582**	550
	SOx[1]	0	1	1	0	1	1	250
	PM10	0	151	**151**	1	226	**227**	100
	PM2.5	0	29	29	1	44	45	55

SDAPCD = San Diego Air Pollution Control District
[1]Emissions calculated by URBEMIS 2007 are for SO_2.
[2]Thresholds for ROG and $PM_{2.5}$ were obtained from the SCAQMD.

TABLE 5-3
COMPARISON OF OPERATIONAL EMISSIONS FOR THE PROPOSED PROJECT AND GENERAL PLAN UPDATE REFERRAL MAP ALTERNATIVE (pounds/day)

		Proposed Project			Development Consistent with General Plan Update Referral Map			
Season	Pollutant	Area Source Emission	Operational (Vehicle) Emission	Total Emission	Area Source Emission	Operational (Vehicle) Emission	Total Emission	SDAPCD Significance Threshold[2]
Summer	ROG	54	37	**91**	36	33	69	75
	NOx	16	33	49	13	30	43	250
	CO	30	386	416	26	345	371	550
	SOx[1]	0	1	1	0	1	1	250
	PM10	0	151	**151**	0	137	**137**	100
	PM2.5	0	29	30	0	27	27	55
Winter	ROG	51	35	**86**	34	31	65	75
	NOx	22	49	71	16	44	60	250
	CO	11	382	393	9	343	352	550
	SOx[1]	0	1	1	0	1	1	250
	PM10	0	151	**151**	0	137	**137**	100
	PM2.5	0	29	29	0	27	27	55

SDAPCD = San Diego Air Pollution Control District
[1]Emissions calculated by URBEMIS 2007 are for SO_2.
[2]Thresholds for ROG and $PM_{2.5}$ were obtained from the SCAQMD.

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CHAPTER 7.0 LIST OF EIR PREPARERS AND PERSONS AND ORGANIZATIONS CONTACTED

This environmental impact report was prepared by the County of San Diego, Department of Land Use and Planning. The following professional staff participated in its preparation.

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CHAPTER 8.0 LIST OF MITIGATION MEASURES AND ENVIRONMENTAL DESIGN CONSIDERATIONS

8.1 Comprehensive List of Mitigation Measures

8.1.1 Mitigation for Impacts to Aesthetics

The following would be required to mitigate impacts to aesthetics.

M-A-1 Direct impacts resulting from short-term construction would remain significant. There is no feasible mitigation available to lessen these short-term effects.

M-A-2 Design measures have been incorporated into the Proposed Project that would reduce direct impacts to existing visual character and quality. However, there is no feasible mitigation available to lessen the cumulative effects.

M-A-3 Design measures have been incorporated into the Proposed Project that would reduce direct impacts to existing visual character and quality. However, there is no feasible mitigation available to lessen the cumulative effects.

8.1.2 Mitigation for Impacts to Air Quality

The following would be required to mitigate air quality impacts:

M-AQ-1 The Proposed Project was not considered in SANDAG growth projections used as a basis for RAQS and the SIP. While the Proposed Project contains smart growth features, which would serve to reduce motor vehicle use, a major goal of the RAQS Transportation Control Measures (TCMs), this would not eliminate this inconsistency with RAQS for the SDAB. This inconsistency can only be rectified when SANDAG updates the RAQS based on the growth projections after the Proposed Project has been approved.

M-AQ-2 During the architectural coatings (painting) phase of construction, the applicant shall use interior coatings with a VOC content less than or equal to 50 grams per liter; residential exterior coatings with a content less than or equal to 100 grams per liter; and non-residential exterior and interior coatings with a content less than or equal to 250 grams per liter.

M-AQ-3 The Proposed Project design would promote walking, bicycle riding, and horseback riding as alternative forms of transportation to motorized vehicles and would reduce the projected operational emissions. However, this will not completely reduce emissions to a level below significance. No additional feasible mitigation is available, thus impacts would remain significant and unmitigatable.

M-AQ-4 To utilize Toxic-Best Available Control Technology (T-BACT) and mitigate for impacts, the applicant shall ensure that 10 percent of the construction

fleet uses any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters and/or CARB certified Tier I, II, or III equipment.

M-AQ-5 The Proposed Project was not considered in SANDAG growth projections used as a basis for RAQS and the SIP. While the Proposed Project contains smart growth features, which would serve to reduce motor vehicle use, a major goal of the RAQS TCMs, this would not eliminate this inconsistency with RAQS for the SDAB. This inconsistency can only be rectified when SANDAG updates the RAQS based on the growth projections after the Proposed Project has been approved.

M-AQ-6 To ensure the use of T-BACT and mitigate for impacts, the applicant shall have 10 percent of the construction fleet use any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters and/or CARB certified Tier I, II, or III equipment.

M-AQ-7 There is no feasible mitigation available to reduce this impact, thus impacts would be significant and unmitigable.

8.1.3 Mitigation for Impacts to Transportation/Traffic

The following would be required to mitigate traffic impacts for affected intersections, street segments and freeway segments.

M-TR-1 The applicant shall install a traffic signal at the intersection of Old Highway 395 and Reche Road to the satisfaction of the Director of DPW.

M-TR-2 Direct impacts to study area street/State Route segments shall be mitigated through the construction of one additional travel lane in each direction. The Caltrans SR-76 project proposes the widening of SR-76 from Via Monserate to Gird Road and SR-76 from the I-15 SB ramp to I-15 the NB ramp. Should the Caltrans project not be completed prior to the Proposed Project, the applicant shall make a fair share contribution to be allocated to the widening of SR-76, if feasible.

M-TR-3 Cumulative impacts to study area intersections shall be mitigated through applicant participation in the TIF program.

M-TR-4 Cumulative impacts to study area street/State Route segments shall be mitigated through applicant participation in the TIF program.

8.1.4 Mitigation for Impacts to Biological Resources

The following would be required to mitigate significant impacts to biological resources:

M-BR-1 To mitigate indirect construction-related impacts on the arroyo toad, the owner/permittee shall, using a qualified biologist, implement the following mitigation measure(s):

a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area and identify locations for placement of protective fencing. The project biologist shall continue to monitor grading activities.

b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downs lope side of disturbed areas, to prevent soil loss.

c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist.

d. A storm drain system and detention basins shall be constructed to restrict excess water flow from proposed roads and structures associated with the Meadowood project. Filter devices shall be installed at the appropriate points to ensure that run-off is cleansed before reaching the basins. All water-catchment features shall be located above graded and natural slopes.

e. Nighttime lighting shall be shielded and directed away from riparian and upland habitat adjacent to the development.

M-BR-2 Permanent direct impacts to a total of 14.5 acres on- and off-site, of suitable habitat for California gnatcatcher shall be mitigated on-site at a ratio of 2:1 for a total of 29.0 acres. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to gnatcatcher habitat by 0.7 acre and mitigation by 1.4 acres, for a total mitigation requirement of 27.6 acres. A total of 74.5 acres of habitat shall be preserved in the proposed on-site open space easement. The mitigation land shall also cover impacts to designated Critical Habitat for the California gnatcatcher as detailed in the Conceptual Resource Management Plan (Appendix F-3).

Temporary direct impacts to a total of 0.3 acre on- and off-site shall be mitigated through revegetation of the coastal sage scrub with the same species present within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

Take authorization of the California gnatcatcher and removal of coastal sage scrub habitat shall be obtained through the Section 7 Consultation with the USFWS or through the County Habitat Loss Permit Ordinance and compliance with the Coastal Sage Scrub NCCP.

M-BR-3a Indirect impacts on the California gnatcatcher shall be mitigated by the following measures to be implemented by the project applicant:

a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area.

b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downslope side of disturbed areas, to prevent soil loss.

c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist.

d. Nighttime lighting shall be shielded and directed away from coastal sage scrub habitat adjacent to the development. This shall be implemented through a Lighting Plan.

e. Permanent fencing and signage shall be placed along the trails and/or between the development open space interface in compliance with County standards and as shown on the Landscape Concept Plans. .

M-BR-3b Direct impacts on the California gnatcatcher shall be mitigated by the following measures to be implemented by the project applicant:

a. Direct impacts to California gnatcatcher shall be mitigated in accordance with M-BR-2.

b. A qualified biologist shall supervise the placement of orange construction fencing or equivalent along the boundary of the development area as shown on the approved grading plans. The location and design for fencing shall be recommended and subsequently installed by a qualified biologist.

c. To avoid impacts to nesting gnatcatchers, vegetation clearing and grubbing within 500 feet of coastal sage scrub shall no occur in potential nesting habitat during the breeding season from February 15 through August 31. If project construction (other than clearing and grubbing of sensitive habitats) is necessary adjacent to preserved on- and off-site habitat during the gnatcatcher breeding (or sooner if a Wildlife Agency-approved biologist demonstrates to the satisfaction of the Wildlife Agencies that all nesting is complete), a Wildlife Agency-approved biologist shall conduct pre-construction surveys in the adjacent habitat to determine the location of any active gnatcatcher nests in the area. The survey shall begin not more than three days

prior to the beginning of construction activities. The Agencies shall be notified if any nesting gnatcatchers are found. During construction, no activity shall occur within 500 ft (152.4 m) of active gnatcatcher nesting territories, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. Exceptions to this measure includes cases where surveys confirm that adjacent habitat is not occupied or where noise studies confirm that construction noise levels are below 60 dBA hourly Leq along the edge of adjacent habitat. If construction activities are not completed prior to the breeding season and noise levels exceed this threshold, noise barriers shall be erected to reduce noise impacts to occupied habitat to below 60 dBA hourly Leq and/or the culpable activities will be suspended.

M-BR-4 Impacts to least Bell's vireo habitat shall be mitigated at a ratio of 3:1 for a total of 11.1 acres to be purchased off-site. This mitigation shall be incorporated into the Section 7 consultation. The habitat shall be a southern willow scrub or willow riparian forest habitat which can be occupied by least Bell's vireo as detailed in the Conceptual Wetlands Mitigation Plan (Appendix F-4). If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to vireo habitat by 0.7 acre and mitigation by 2.1 acres for a total mitigation requirement of 9.1 acres. This mitigation shall be incorporated into the Section 7 consultation.

Temporary direct impacts to 2.2 acres shall be mitigated through revegetation of the riparian habitat with the same species present within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

M-BR-5a Indirect impacts to least Bell's vireo shall be mitigated by the following measures to be implemented by the project applicant:

a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area.

b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downslope side of disturbed areas, to prevent soil loss.

c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist.

d. Nighttime lighting shall be shielded and directed away from riparian habitat adjacent to the development. This shall be implemented through a Lighting Plan.

M-BR-5b Direct impacts to least Bell's vireo shall be mitigated by the following measures to be implemented by the project applicant:

a. Direct impacts to least Bell's vireo habitat shall be mitigated in accordance with M-BR-4

b. A qualified biologist shall supervise the placement of orange construction fencing or equivalent along the boundary of the development area as shown on the approved grading plans. The location and design for fencing shall be recommended and subsequently installed by a qualified biologist.

c. To avoid impacts to nesting vireos, vegetation clearing and grubbing shall not occur within 500 feet of riparian habitat during the breeding season from March 15 to September 15. If project construction (other than clearing and grubbing of sensitive habitats) is necessary adjacent to preserved on- and off-site habitat during the vireo breeding (or sooner if a Wildlife Agency-approved biologist demonstrates to the satisfaction of the Wildlife Agencies that all nesting is complete), a Wildlife Agency-approved biologist shall conduct pre-construction surveys in the adjacent habitat to determine the location of any active vireo nests in the area. The survey shall begin not more than three days prior to the beginning of construction activities. The Agencies shall be notified if any nesting vireos are found. During construction, no activity shall occur within 500 ft (152.4 m) of active vireo nesting territories, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. Exceptions to this measure includes cases where surveys confirm that adjacent habitat is not occupied or where noise studies confirm that construction noise levels are below 60 dBA hourly Leq along the edge of adjacent habitat. If construction activities are not completed prior to the breeding season and noise levels exceed this threshold, noise barriers shall be erected to reduce noise impacts to occupied habitat to below 60 dBA hourly Leq and/or the culpable activities will be suspended.

M-BR-6 Impacts to southwestern willow flycatcher habitat shall be mitigated at a ratio of 3:1 for a total of 11.1 acres to be purchased off-site as detailed in the Conceptual Wetlands Mitigation Plan (Appendix F-4). If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to southwestern willow flycatcher habitat by 0.7 acres and mitigation by 2.1 acres, for a total mitigation requirement of 9.1 acres. This mitigation shall be incorporated into the Section 7 consultation.

Temporary direct impacts to 2.2 acres of suitable habitat shall be mitigated through revegetation of the riparian habitat with the same

species present within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

M-BR-7a Indirect impacts on the southwestern willow flycatcher shall be mitigated by the following measures to be implemented by the project applicant:

a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area.

b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downslope side of disturbed areas, to prevent soil loss.

c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist.

d. Nighttime lighting shall be shielded and directed away from riparian habitat adjacent to the development. This shall be implemented through a Lighting Plan.

M-BR-7b Direct impacts on the southwestern willow flycatcher shall be mitigated by the following measures to be implemented by the project applicant:

a. Direct impacts to southwestern willow flycatcher habitat shall be mitigated in accordance with M-BR-6.

b. A qualified biologist shall supervise the placement of orange construction fencing or equivalent along the boundary of the development area as shown on the approved grading plans. The location and design for fencing shall be recommended and subsequently installed by a qualified biologist.

c. To avoid impacts to nesting southern willow flycatchers, vegetation clearing and grubbing within 500 feet of riparian habitat shall not occur from May 1 to September 1. If project construction (other than clearing and grubbing of sensitive habitats) is necessary adjacent to preserved on- and off-site habitat during the flycatcher breeding (or sooner if a Wildlife Agency-approved biologist demonstrates to the satisfaction of the Wildlife Agencies that all nesting is complete), a Wildlife Agency-approved biologist shall conduct pre-construction surveys in the adjacent habitat to determine the location of any active flycatcher nests in the area. The survey shall begin not more than three days prior to the beginning of construction activities. The Agencies shall be notified if any nesting flycatchers are found. During construction, no

activity shall occur within 500 ft (152.4 m) of active flycatcher nesting territories, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. Exceptions to this measure includes cases where surveys confirm that adjacent habitat is not occupied or where noise studies confirm that construction noise levels are below 60 dBA hourly Leq along the edge of adjacent habitat. If construction activities are not completed prior to the breeding season and noise levels exceed this threshold, noise barriers shall be erected to reduce noise impacts to occupied habitat to below 60 dBA hourly Leq and/or the culpable activities will be suspended

M-BR-8 Permanent direct impacts to 62.2 acres of foraging habitat for birds of prey and other special status species shall be mitigated through preservation of 122.4 acres of open space on-site within a regional open space network as detailed in the Conceptual Resource Management plan (Appendix F-3).

Temporary impacts would be mitigated through revegetation of foraging habitat with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

Indirect impacts shall be mitigated by the following measures:

a. Shielding lighting away from the open space.

b. Monitoring noise levels during construction.

c. Use of range construction fencing, and silt fencing.

d. Permanent fencing and signage shall be placed along the trails and/or between the development open space interface in order to be compliant with County standards and as shown on the Landscape Concept Plans.

M-BR-9 Impacts to the western spadefoot shall be mitigated by the purchase of 11.1 acres of riparian forest and scrub habitat and the 122.4 acres of open space on-site within a regional open space network as detailed in the Conceptual Resource Management Plan (Appendix F-3). If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to western spadefoot habitat by 0.7 acres and mitigation by 2.1 acres, for a total mitigation requirement of 9.1 acres.

Additionally, prior to grading, a written relocation plan shall be prepared and approved by the County and CDFG. In accordance with the plan, western spadefoot toads shall be trapped and relocated. The timing and duration of the relocation program shall be based on the activity period of the western spadefoot (generally associated with rainfall and temperature) and proposed construction schedule.

Trapping shall occur along the existing pitfall traps located along the western and southern property boundaries and monitored prior to and

during proposed construction activities. Any western spadefoot found in the traps shall be collected, noted and relocated to predetermined receptor sites within the region. Trapping and relocation shall be conducted by a biologist familiar with the biological natural history of the western spadefoot and possesses a CDFG Memorandum of Understanding (MOU) for conducting these activities. At the end of the relocation effort, the biologist shall prepare a summary report noting the number of western spadefoot relocated, the location of the area to which they were moved, and other pertinent facts. The report shall be submitted to the County and CDFG.

M-BR-10 Permanent and temporary impacts to the 14 special status wildlife species identified on-site shall be mitigated through preservation of 122.4 acres of open space on-site within a regional open space network as detailed in the Conceptual Resource Management Plan (Appendix F-3).

M-BR-11 Impacts to nesting birds shall be mitigated through the following measures:

a. Native and naturalized vegetation clearing shall not occur during the breeding season from -February 15 to -September 15; However, Project construction activities may occur within this period with written concurrence from the Director of the Department of Planning and Land Use (DPLU), the USFWS, and the CDFG that nesting birds would be avoided. If vegetation removal is to take place during the nesting season, a biologist shall be present during vegetation clearing operations to search for and flag active nests so that they can be avoided.

b. To avoid impacts to nesting raptors, any vegetation clearing or grubbing within 500 feet of trees suitable for raptor nesting shall not occur from February 1 to July 15. However, Project construction activities may occur within this period with written concurrence from the Director of the Department of Planning and Land Use (DPLU), the USFWS, and the CDFG that nesting birds would be avoided. A County-approved biologist shall conduct pre-construction surveys in the adjacent habitat to determine the location of any active raptor nests in the area. The survey shall begin not more than ten days prior to the beginning of construction activities. During construction, no activity shall occur within 500 ft (152.4 m) of active raptor nests, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. The project proponent may seek approval from the Director of DPLU if nesting activities cease prior to July 15.

c. Potential impacts to nesting California gnatcatcher, least Bell's vireo, and southern willow flycatcher will be implemented through agency permitting and with M-BR-3b(c), M-BR-5b(c), and M-BR-7b(c).

M-BR-12 General indirect impacts associated with external community lighting shall be mitigated through the requirement that all communal lighting

be shielded and directed away from the urban/natural edge. The Proposed Project shall be designed to be in compliance with the San Diego County Light Pollution Code (Sections 59.101-59.115). A lighting plan shall be included in the grading plans which shows required lighting adjacent to the open space as being shielded, unidirectional, low pressure sodium illumination (or similar), and directed away from preserve areas using appropriate placement and shields.

M-BR-13 Permanent impacts to coastal sage scrub and disturbed coast sage scrub in the amount of 12.6 acres on-site and 1.9 acres off-site shall be mitigated at the ratio of 2:1 totaling 29.0 acres within the 122.4-acre proposed on-site open space easement as detailed in the Conceptual Resource Management Plan (Appendix F-3). (Actual amount of coastal sage scrub preserved on-site is 74.5 acres). If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to disturbed coastal sage scrub by 0.7 acres and mitigation by 1.4 acres, for a total mitigation requirement of 27.6 acres.

Temporary impacts in the amount of 0.3 acres shall be mitigated through revegetation with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

M-BR-14 Permanent impacts to southern mixed chaparral shall be mitigated at the ratio of 0.5:1 totaling 1.1 acres within the 122.4 acre proposed on-site open space easement as detailed in the Conceptual Resource Management Plan (Appendix F-3) (Actual amount of southern mixed chaparral preserved on-site is 17.5 acres).

M-BR-15 Permanent impacts to coast live oak shall be mitigated at the ratio of 3:1 totaling 0.9 acres within the 122.4 acre proposed on-site open space easement as detailed in the Conceptual Resource Management Plan (Appendix F-3). (Actual amount of coast live oak woodland preserved on-site is 1.7 acres).

M-BR-16 Permanent impacts to non-native grassland shall be mitigated at the ratio of 0.5:1 totaling 7.7 acres within the 122.4 acre proposed on-site open space easement as detailed in the Conceptual Resource Management Plan (Appendix F-3). (Actual amount of non-native grassland preserved on-site is 22.0 acres).

M-BR-17 Permanent impacts to pastureland shall be mitigated at the ratio of 0.5:1 totaling 15.1 acres of non-native grassland. A portion of the mitigation shall be on-site within the proposed open space easement. An additional 2.7 acres of mitigation land is required and shall be preserved off-site as detailed in the Conceptual Resource Management Plan (Appendix F-3). If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to pastureland by 16.7 acres and mitigation by 8.3 acres, for a total mitigation requirement of 6.8 acres.

M-BR-18 Impacts willow/mule fat scrub, southern willow scrub, southern arroyo willow riparian forest, and freshwater marsh off-site shall be mitigated through dedication, restoration, creation and/or enhancement of wetlands at a ratio of 3:1 for a total of 12.3 acres or as defined through required state and federal wetland permits as detailed in the Conceptual Wetland Mitigation Plan (Appendix F-4). The Conceptual Wetlands Mitigation Plan will be updated to account for the impacted Jurisdictional Vegetated Wetlands separately from the impacted Vegetation Communities Impacts.

If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to willow/mule fat scrub, southern willow scrub, southern arroyo willow riparian forest, and freshwater marsh by 1 acre and mitigation by 3 acres, for a total mitigation requirement of 9.3 acres Temporary impacts shall be mitigated through revegetation with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

M-BR-19 Permanent Impacts to jurisdictional wetlands shall follow the terms and conditions of permits and agreements with ACOE and CDFG.

Permanent impacts shall be mitigated at a ratio of 3:1 and shall consist of purchase and dedication of replacement habitat, creation of wetlands, and revegetation of disturbed riparian habitat. Mitigation measures for impacts to ACOE jurisdictional wetlands, CDFG vegetated riparian habitat, and County wetlands are listed as follows:

- ACOE jurisdiction: Permanent impacts to 0.83 acre on-site and 2.29 acres off-site, for a total of 3.12 acres of ACOE jurisdictional waters and wetlands shall be mitigated with 9.36 acres of ACOE jurisdictional waters and wetlands. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to ACOE jurisdiction by 0.11 acre and mitigation by 0.33 acres, for a total mitigation requirement of 9.25 acres.
- CDFG jurisdiction: Permanent impacts to 0.93 acres on-site and 2.29 acres off-site, for a total of 3.22 acres of CDFG jurisdictional waters and vegetated riparian habitat shall be mitigated with 9.66 acres of CDFG jurisdictional waters and vegetated riparian habitat. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to CDFG jurisdiction by 0.11 acre and mitigation by 0.33 acres, for a total mitigation requirement of 9.25 acres.
- RPO jurisdiction: Permanent impacts to 2.29 acres of RPO wetlands off-site shall be mitigated with 6.87 acres of RPO wetlands. with Horse Ranch Creek, this would reduce impacts to RPO jurisdiction by 0.11 acre and mitigation by 0.33 acres, for a total mitigation requirement of 9.25 acres.

The Conceptual Wetlands Mitigation Plan will be updated to account for the impacted Jurisdictional Vegetated Wetlands separately from the impacted Vegetation Communities Impacts.

M-BR-20 Temporary impacts to 2.04 acres of jurisdictional wetlands shall be mitigated through revegetation with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce temporary impacts by 0.4 acre.

8.1.5 Mitigation for Impacts to Geology and Soils

The following would be required to mitigate significant impacts associated with geology and soils:

M-GE-1 The applicant shall raise the grade while also removing and re-compacting the alluvium above the groundwater table to increase the overburden pressure over the liquefiable deposits as recommended by the geotechnical engineer.

M-GE-2 Mitigation of rockfall potential shall consist of the following:

- The boulders identified as having a high potential of rockfall in the Response to County of San Diego Review Comments for Rockfall prepared by Geocon Incorporated dated March 31, 2011 shall be broken and removed from the slope, or alternatively rock bolted to the slope as part of the grading of the site.

- Boulders identified as having a less than significant rockfall potential shall be tested by applying pressure with an excavator. If the boulders move they shall be mitigated using the same techniques described for boulders with high potential for rockfall. Boulders identified as having a less than significant rockfall potential shall be monitored during grading after any heavy rains if they should occur. If any undermining on the downhill side of any of the boulders has occurred, removal and/or breaking of the boulder(s) as recommended shall be performed to mitigate the rockfall hazard.

- A letter of certification shall be provided by a California Registered Professional Engineer or Certified Engineering Geologist to the *[DPLU, PCC]*, which states that the identified rockfall hazards at the site have been mitigated to a level of less than significant and any proposed buildings are safe for human occupancy.

- The above certification letter shall be provided prior to approval of any building plans and issuance of any building permit. The [DPLU, PCC] shall review the rockfall hazard certification report for compliance with this condition.

8.1.6 Mitigation for Impacts to Cultural Resources

The following would be required to mitigate significant impacts to cultural resources:

M-CR-1 A County-approved archaeologist and a Luiseño Native American monitor shall monitor grading in the vicinity of the mapped location of the Monserate Adobe, as well as the area north of SR-76. A Monitoring Discovery Plan shall be prepared prior to commencement of construction activity, to be put in use in the event historic deposits are discovered. All historic artifacts recovered during all phases of survey, testing, and grading monitoring shall be curated according to current professional repository standards. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San Diego County that meets federal standards per 36 CFR Part 79, to be accompanied by payment of the fees necessary for permanent curation.

All prehistoric artifacts recovered during all phases of survey, testing, and grading monitoring shall be curated with a Luiseño Native American Tribe. The collections and associated records shall be transferred to a Luiseño Native American Tribe within San Diego County.

If human remains are encountered, all ground disturbance activities in the immediate vicinity of the discovery shall be halted and all requirements under Public Resources Code section 5097.98 and County Guidelines for Cultural Resources shall be followed.

M-CR-2a To preserve the integrity of CA-SDI-682, the applicant shall cap Loci A and B per County of San Diego standards, landscaped as part of the overall development and placed in an open space easement. A Preservation Plan describing the methods and ultimate disposition of the capped site area has been prepared and is included as Appendix H of the Cultural Resources Report. The location of the conservation open space easement is shown in Figure 4 of the Preservation Plan. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, they will be responsible for mitigation associated with Locus B which entails capping, temporary fencing and open space easement dedication.

M-CR-2b For the protection of archaeological site CA-SDI-682, Loci A and Loci B, the applicant shall prepare and implement a temporary fencing plan during any grading activities within one hundred feet. The fencing plan shall be prepared in consultation with a County-approved archaeologist and a Luiseño Native American representative to the satisfaction of the Director of the Department of Planning and Land Use. The fenced area should include a buffer sufficient to protect the archaeological site. The fence shall be installed under the supervision of the approved archaeologist prior to commencement of grading or brushing and be removed only after grading operations have been completed.

M-CR-3 A County-approved archaeologist and a Luiseño Native American representative shall monitor grading in the vicinity of Loci C, as well as the area north of existing SR-76. A Monitoring Discovery Plan shall be prepared prior to commencement of construction activity, to be put in use in the event archeological deposits are discovered. All artifacts recovered during all phases of survey, testing, and grading monitoring shall be

curated with a Luiseño Native American Tribe ~~according to current professional repository standards~~. The collections and associated records shall be transferred ~~including title,~~ to a Luiseño Native American Tribe ~~n appropriate curation facility~~ within San Diego County ~~that meets federal standards per 36 CFR Part 79, to be accompanied by payment of the fees necessary for permanent curation~~.

If human remains are encountered, all ground disturbance activities in the immediate vicinity of the discovery shall be halted and all requirements under Public Resources Code section 5097.98 and County Guidelines for Cultural Resources shall be followed.

M-CR-4 A County-approved archaeologist and a Luiseño Native American representative shall monitor grading and subsurface excavation in off-site areas. All artifacts recovered during all phases of survey, testing and grading monitoring shall be curated with a Luiseño Native American Tribe ~~according to current professional repository standards~~. The collections and associated records shall be transferred ~~including title,~~ to a Luiseño Native American Tribe ~~n appropriate curation facility~~ within San Diego County ~~that meets federal standards per 36 CFR Part 79, to be accompanied by payment of the fees necessary for permanent curation~~.

If human remains are encountered, all ground disturbance activities in the immediate vicinity of the discovery shall be halted and all requirements under Public Resources Code section 5097.98 and County Guidelines for Cultural Resources shall be followed.

M-CR-5 A County-approved archaeologist and a Luiseño Native American representative shall monitor grading and subsurface excavation in on- and off-site areas not covered by CR-1 and CR-3. All artifacts recovered during all phases of survey, testing, and grading monitoring shall be curated with a Luiseño Native American Tribe ~~according to current professional repository standards~~. The collections and associated records shall be transferred ~~including title,~~ to a Luiseño Native American Tribe ~~n appropriate curation facility~~ within San Diego County ~~that meets federal standards per 36 CFR Part 79, to be accompanied by payment of the fees necessary for permanent curation~~.

If human remains are encountered, all ground disturbance activities in the immediate vicinity of the discovery shall be halted and all requirements under Public Resources Code section 5097.98 and County Guidelines for Cultural Resources shall be followed.

8.1.7 Mitigation for Impacts to Noise

The following would be required to mitigate significant noise impacts

M-N-1 The Proposed Project shall construct noise attenuation barriers ranging from three to ten feet along the edge of the residential pads, as shown in Figures 3.4-4 and 3.4-7. Barriers shall be free of cracks and holes. The transmission loss through a barrier should be at least 10 decibels greater

than the estimated barrier attenuation (Federal Highway Administration 1979:34). If a barrier attenuates noise levels by 10 decibels at a receiver location, the barrier transmission loss must be at least 20 decibels to prevent audible noise from traveling through the barrier and adding to the acoustical environment. Examples of acceptable barrier materials include, but are not limited to, masonry block, wood frame with stucco, 0.5-inch-thick plexiglass, or 0.25-inch-thick plate glass. If transparent barrier materials are used, no gaps shall occur between the panels.

Figure 3.4-6 shows the barriers that would be required if the Campus Park project was constructed before the Proposed Project. As shown in Figure 3.4-6, several noise barriers at the southwest portion of Planning Area 1 as shown on Figure 3.4-4 would not be required with development of the Campus Park project.

M-N-2 A noise protection easement shall be placed on those lots where exterior noise levels exceed 60 CNEL to assure that at such time as architectural plans are available, and prior to the issuance of building permits, an interior acoustical analysis shall be conducted in accordance with the State Building Code and County standards. If interior allowable noise levels are met by requiring that windows be unopenable or closed, the design for the structure must also specify a ventilation or air-conditioning system to provide a habitable interior environment, as stated in the State Building Code. For exterior balconies, the acoustical analysis will determine the height and make up of acoustical barriers, also in accordance with State Building Code and County standards.

M-N-4 To reduce noise levels from the WWTP, the Proposed Project shall construct a nine-foot barrier at the property line south of Planning Area 1 and north of SR-76 and a seven-foot barrier proposed south of the WWTP site. The seven-foot barrier shall consist of a six-foot wall on top of a one-foot landscaped berm.

8.1.8 Mitigation for Impacts to Hazards and Hazardous Materials

The following would be required to mitigate significant impacts related to hazards and hazardous materials:

M-HZ-1 Prior to grading, irrigation water shall be removed from the two on-site irrigation ponds and soil samples from the bottom of the ponds shall be collected and analyzed for potential agricultural residues, to the satisfaction of the Director of DEH. If contamination is present, evidence shall be provided to the satisfaction of the Director of DEH that all contaminated soils from the irrigation ponds have been remediated under the oversight of the DEH's SAM Program or removed and properly disposed of at an appropriately permitted facility, in accordance with government agency regulations.

M-HZ-2 Prior to grading, surficial soil in the vicinity of the smudge pots and elsewhere on the property where minor surficial staining is evident shall be excavated, removed from the site, and properly disposed of at an

appropriately permitted facility, in accordance with government agency regulations and to the satisfaction of the County DEH.

M-HZ-3a Prior to issuance of a building permit that includes demolition of on-site structures and prior to commencement of demolition or renovation activities, a facility survey shall be performed to determine the presence or absence of asbestos containing materials (ACMs). Suspect materials that will be disturbed by the demolition or renovation activities shall be sampled and analyzed for asbestos content, or assumed to be asbestos containing. The survey shall be conducted by a person certified by Cal/OSHA pursuant to regulations implementing subdivision (b) of Section 9021.5 of the Labor Code, and shall have taken and passed an EPA-approved Building Inspector Course. Should regulated asbestos containing materials be found, it shall be handled in compliance with the San Diego County Air Pollution Control District Rule 361.145 – Standard for Demolition and Renovation. Evidence of completion of the facility survey shall consist of a signed, stamped statement from the person certified to complete the facility survey and shall be submitted to County DEH indicating that the survey has been completed and that either regulated asbestos is present or absent. If present, the letter shall describe the procedures that shall be taken to remediate the hazard.

M-HZ-3b Prior to issuance of a building permit that includes demolition of on-site structures and prior to commencement of demolition or renovation activities, a survey shall be performed by a California Department of Health Services (DHS) certified lead inspector/risk assessor to determine the presence or absence of lead based paint (LBP). All lead containing materials scheduled for demolition must comply with applicable regulations for demolition methods and dust suppression. Lead containing materials shall be managed in accordance with applicable regulations including, at a minimum, the hazardous waste disposal requirements (Title 22 California Code of Regulations [CCR] Division 4.5), the worker health and safety requirements (Title 8 California Code of Regulations Section 1532.1), and the State Lead Accreditation, Certification, and Work Practice Requirements (Title 17 CCR Division 1, Chapter 8). The survey must be submitted to and deemed complete by the County DEH.

8.2 Environmental Design Considerations/Conditions of Approval Required to Ensure Implementation of Design Features

8.2.1 Aesthetics

To reduce aesthetics impacts, the Proposed Project includes design guidelines contained within the Community Design Element of the Meadowood Specific Plan Amendment. The design guidelines provide detailed site planning, architecture, landscape and grading measures for all residential, roadways and recreational uses. Implementation of these design measures would ensure long-term application and continued conformance with other design guidelines including the Fallbrook Design Guidelines, I-15 Corridor Guidelines and Scenic Roadway preservation. The Community Design Element is included in its entirety in Appendix C-2.

8.2.2 Air Quality

To reduce potential nuisance impacts and to ensure compliance with SDAPCD rules and regulations, standard dust and emission control during grading operations shall be implemented. The standard emissions control measures listed below are considered part of the project design:

- All unpaved construction areas shall be sprinkled with water or other acceptable SDAPCD dust control agents at least twice daily and during dust-generating activities to reduce dust emissions. Additional watering or acceptable SDAPCD dust control agents shall be applied during dry weather or windy days until dust emissions are not visible.
- Apply soil stabilizers to inactive areas.
- A 15-mile-per-hour speed limit on unpaved surfaces shall be enforced.
- On dry days, dirt and debris spilled onto paved surfaces shall be swept up immediately to reduce resuspension of particulate matter caused by vehicle movement. Approach routes to construction sites shall be cleaned daily of construction-related dirt in dry weather.
- Disturbed areas shall be hydroseeded, landscaped, or developed as quickly as possible and as directed by the County of San Diego and/or SDAPCD to reduce dust generation.

To reduce potential impacts associated with operation related emissions from project generated traffic and on-site source emissions, the Proposed Project promotes walking, bicycle riding, or horseback riding as alternative forms of transportation to motorized vehicles by including the following features into the specific plan:

- Complete sidewalk coverage.
- Street trees to provide shade.
- Internal trail system with connections to a regional system.
- Bike routes with paved shoulders to most major destinations.
- Mixed residential uses and routes that are visually interesting.
- Pedestrian and bicyclist safety through lighting, signalization and signage, bike lanes (as appropriate), and crosswalks.

To reduce potential impacts associated with the generation of objectionable odors, the on-site WWTP includes the following design features:

- The preliminary treatment building, equalization basins, and solids dewatering facilities shall be enclosed and the air would be conveyed to either wet scrubbers or activated carbon odor control units.
- Odor control units shall matter causing unpleasant odors which are perceptible by the average person at or beyond the lot line of the WWTP.
- Odor treatment units shall be required to provide a dilution ratio of one volume of odorous air to eight volumes of clean air.

- Wastewater treatment processes such as aeration and disinfection basins that are not enclosed within buildings shall be covered.

To reduce potential impacts associated with global climate change, the Proposed Project includes the following design measures:

Vehicle Emissions

- Bike lanes, wide trails, and pathways are designed throughout the subdivision to promote non-motorized transportation.
- The design of the Proposed Project encourages residents to walk and bike through their neighborhoods to the on-site school, park and town center, commercial areas, and college located in adjacent proposed projects.
- Circulation within the Proposed Project is accomplished using a system of roadways combined with a trail and sidewalk system for bike and pedestrian use. Interior roads link through the Proposed Project, Campus Park, and the Campus Park West properties, allowing residents easy access to the planned town center and commercial areas located in these other projects.
- The Proposed Project will be conditioned to participate, along with the other projects in the vicinity, in the contribution of funds for the acquisition, design, and construction of a future transit node in the location of the I-15/SR-76 quadrant.

Electricity Generation

- Homes comply with the U.S. Environmental Protection Agency's Energy Star criteria, which results in homes that are at least 30 percent more energy efficient than required by Title 24.
- Outdoor and indoor shaded areas have been implemented into the design of the multi-family planning areas to reduce energy use.
- Minimization of site lighting to that necessary for security, safety, and identification.

Water Use

- The Proposed Project shall use either reclaimed water or groundwater to irrigate common areas and retained agricultural groves.
- By utilizing the new stormwater regulations, more efficient irrigation will be used reducing the Proposed Project's water demand.
- Installation of low water usage appliances.
- The Proposed Project will be required to develop an off-set program to achieve a net zero project-wide water demand.

Solid Waste

- Meet or exceed the requirements of the County's Construction and Demolition Debris Ordinance (Sections 68.508 through 68.518 of the County Code of Regulatory Ordinances) that requires recycling of 90 percent of inert and 70 percent of other materials.
- Recycling bins as well as trash bins shall be provided to each resident.

8.2.3 Transportation/Traffic

To reduce potential traffic impacts:

- The Proposed Project will prepare a Traffic Control Plan. This plan shall be approved by the County Department of Public Works prior to the start of any clearing or grading activities, and shall be implemented during construction of the Proposed Project.
- Horse Ranch Creek Road has been designed per General Plan Update "Boulevard" standards.

8.2.4 Biological Resources

To reduce potential indirect effects of invasive plants on any biological resources, the landscape plant palette for the proposed slopes adjacent to natural areas shall include only native and low-fuel plant species. No invasive (non-native weedy species) plants shall be introduced adjacent to natural open space.

To reduce potential impacts associated with conformance with local ordinances and Natural Community Conservation Plans, the Proposed Project is consistent with the proposed subregional NCCP. Specifically, the Proposed Project is designed to conform to the proposed "take authorized" and "preserve" areas developed for the proposed North County MSCP.

To reduce impacts to regional wildlife movement, the Proposed Project has been designed to avoid the three mapped wildlife movement corridors in the area, as follows:

- Local wildlife and migratory bird movement within the island of riparian habitat along Horse Ranch Creek shall be avoided by constructing Pala Mesa Road south of the main drainage. Vegetation disturbed by excavation for Pala Mesa Road will be revegetated. In addition, the proposed Pala Mesa Road shall use an existing bridge for Pankey Road to continue to allow access for small wildlife to the small patch of riparian vegetation to the southwest.
- The proposed water tank location has been designed around the existing water tank to reduce any new visual or physical barriers to wildlife movement along corridor 1. Similarly, the access road to the water tanks shall follow an existing road.
- The development area on the Project Site have been designed to avoid corridor 1 by limiting development to the lower elevations consisting of mostly agriculture vegetation and leaving the natural vegetation on the ridge intact.

To reduce impacts to the existing off-site wetland area located on the Campus Park project site, west of the Proposed Project, an on-site 100' wetland buffer shall be dedicated along the riparian woodland west of the southwestern boundary of the Project Site.

To reduce impacts to wildlife habitat, all trails in the open space preserve shall be located within existing trails/dirt roads. Any existing trails/dirt roads not included in the proposed trail system shall be closed and restored to natural habitat.

To prevent bullfrog use of the water storage and detention basins associated with the wastewater treatment plant an exclusion fence shall be installed around the perimeter. The fence will have small diameter holes of suitable size to prevent bullfrogs from passing through. The basins will be checked periodically during the focused monitoring for exotic species. If bullfrogs are observed in the basins they will be removed. Control and eradication efforts shall be implemented at the most appropriate times of year, usually after heavy rains when the basins will be inundated, and will reflect current field conditions and observations regarding the bullfrogs. The County Department of Parks and Recreation as well as the DEH will be contacted to determine the need and manner of exotic species eradication efforts.

8.2.5 Geology and Soils

To reduce the risk of exposure of people or structures to geologic hazards:

- The project design shall address seismic and geologic hazards through conformance with the UBC and the County Zoning Ordinance.
- The project design shall comply with all recommendations found in Section 7 of the geotechnical report.

To reduce the potential for rockfall from Rosemary's Mountain, the project design incorporates standard design measures including open space buffers and tree plantings.

- To reduce the potential for erosion, the project design shall include erosion control measures during construction and a landscaping plan that comply with current San Diego County and Fallbrook community rules and regulations to prevent soil erosion on- and off-site.

To reduce hazards associated with a project located on expansive soils:

- Comply with the improvement requirements identified in the 1997 Uniform Building Code, Division III—Design Standard for Design of Slab-On-Ground Foundations to Resist the Effects of Expansive Soils and Compressible Soils.
- Complete removal and recompaction of the compressible deposits, which are found in several locations across the site, shall be required in order to support structural improvements.

Remedial grading recommendations (Geotechnical Report; Section 7) are provided for areas where groundwater is encountered.

To reduce the potential for hazards associated with cut and fill slopes:

- Slopes shall be constructed at inclinations no steeper than 2:1. Cut or fill slopes comprised of granular soils should be stable up to heights of approximately 50 feet. Slope stability analyses were based on assumed direct shear strength parameters and are considered conservative. As such, the analyses indicate factors of safety in excess of 1.5 for both deep seated and surficial stability.
- Cut slopes shall be observed during grading by an engineering geologist to observe the exposed slope face to assess if adverse geologic conditions exist. Additional remedial grading may be recommended at that time.

- The outer 15 feet of fill slopes should be composed of properly compacted granular "soil" fill to reduce the potential for surface sloughing.
- All fill slopes shall be overbuilt at least 3 feet horizontally, and cut to the design finish grade. As an alternative, fill slopes may be compacted by backrolling at vertical intervals not to exceed 4 feet and then trackwalking with a D-8 bulldozer, or equivalent, such that the soils are uniformly compacted to at least 90 percent relative compaction to the face of the finish slope.
- All slopes shall be planted, drained, and properly maintained to reduce erosion.

To reduce the potential for adverse impacts associated with seepage and perched water:

- Subdrains are recommended to collect the perched water that migrates along the contact between natural ground and fill surfaces. The subdrain outlet points shall be located according to the recommendations of the Geotechnical Report.
- The lower 20 feet of the subdrains shall consist of non-perforated PVC pipe. The perforated/non-perforated joint shall have a concrete cutoff wall built at locations indicated by the Geotechnical Report. The subdrains shall outlet at the toe of fill slopes or connected to the storm drain system. Subdrains that outlet at the toe of slopes or onto surface grades shall be provided with a concrete outlet headwall at the outlet point.
- Final grading plans shall show locations of all proposed subdrains. Upon completion of remedial excavations and subdrain installation, the project engineer shall survey drain locations and prepare an "as built" map depicting surveyed locations and elevations of the drainpipes.

8.2.6 Noise

To reduce potential noise from construction of the Proposed Project, construction activities shall comply with the County of San Diego Noise Abatement and Control Ordinance.

To reduce potential impacts associated with neighboring Rosemary's Mountain Rock Quarry, the Proposed Project will provide a notice prior to sale of all lots within the 50 dB(A) $L_{eq(1)}$ contour of the quarry stating the following:

> This property is located adjacent to Rosemary's Mountain Rock Quarry. Noise levels due to operations at the Quarry are projected to exceed 50 decibels one-hour Leq at this property, but will not exceed 60 decibels one-hour Leq.

8.2.7 Hazards

To reduce potential impacts associated with interference with Emergency Air Support, the Proposed Project shall implement measures contained in the Community Design Guidelines of the Meadowood Specific Plan Amendment which includes 35-foot height limitation on all structures.

To reduce potential significant hazard to the public or the environment as a result of existing agricultural uses, the Proposed Project shall remove and dispose of all above ground storage tanks according to applicable regulations prior to development.

To reduce potential significant impacts associated with the 49.3 acres of retained groves, the Proposed Project includes the requirement that all applicable pesticide use permits are obtained from the County of San Diego Department of Agriculture Weights and Measures and that applicable permit conditions are complied with for pesticide use on the agriculture open space areas.

To reduce impacts associated with existing on-site septic systems and historic wells, the Proposed Project includes a design measure requiring the abandonment and removal of all on-site septic systems, as well as the locating and removal of the historic water well in accordance with all applicable regulations and under permit and approval from the County of San Diego Department of Health.

To reduce fire hazards, the Proposed Project includes project design features including the creation of fuel modification zones, guidelines relating to the use of ignition resistant building materials, road requirements, placement and flow of fire hydrants, and the provision of fire access. All project design measures relating to fire safety are detailed in the Fire Protection Plan included in Appendix K-2.

To reduce impacts associated with vector breeding resulting from standing water in stormwater BMPs, the Proposed Project includes the following design measures:

- Hydrodynamic separators shall be designed with the applicable measures to exclude vectors from enclosed sources of standing water in structural BMPs.
- Detention basins shall be designed to completely drain in 24 to 72 hours in order to prevent basins from becoming sources for vectors.

8.2.8 Hydrology and Water Quality

To reduce impacts to water quality, the Proposed Project includes short-term (construction) and long-term erosion control measures to ensure that chemicals or compounds would not significantly contaminate surface waters to below standards as established by the RWQCB. All potential Site Design BMPs, Low Impact Development requirements, Source Control BMPs and Treatment Control BMPs are detailed in the SWMP included in Appendix M-1.

To reduce impacts associated with runoff and drainage, the Proposed Project design includes the implementation of seven detention basins and the energy dissipaters to manage the velocities of run-off exiting the Project Site. In addition, the hydromodification management component that is associated with the detention facilities would reduce the effect of the Proposed Project's changes to runoff characteristics. Implementation of these design measures would assure that post-development run-off does not exceed pre-development run-off. Details of the design measures are included in the Drainage and Hydromodification Studies, located in Appendices M-2 and M3, respectively.

8.2.9 Public Services

To reduce impacts to schools:

- Prior to the issuance of building permits for the Proposed Project the developer shall pay school impact fees pursuant to Government Code Section 65970 et seq. to Fallbrook Union High School District, Fallbrook Union Elementary School District, and Bonsall Union Elementary School District.

To reduce impacts to fire services, the Proposed Project:

- Shall improve Pala Mesa Drive from the existing bridge crossing I-15 to the Project Site via Street R, as well as a northward extension of Street D to Pala Mesa Heights Road. Additionally, fire access to Rice Canyon via a northeasterly extension of Street E is included in the Proposed Project's circulation plan
- The Proposed Project includes fire protection measures as detailed in the Fire Protection Plan, included as Appendix K-2.

To reduce impacts from solid waste, the Proposed Project shall:

- Deposit waste at a permitted waste facility and therefore, will comply with Federal, State, and local statutes and regulations related to solid waste.
- Meet or exceed the requirements of the County's Construction and Demolition Debris Ordinance (Sections 68.508 through 68.518 of the County Code of Regulatory Ordinances) that requires recycling of 90 percent of inert and 70 percent of other materials.
- Provide recycling bins as well as trash bins for each resident.
- Conform to the applicable County recycling activities.

8.2.10 Utilities

The Proposed Project will be conditioned to obtain water and wastewater services from a MWD, as determined by LAFCO.

To reduce impacts associated with the extension of utilities to the Project Site, the Proposed Project includes the following design measures:

- The Proposed Project shall use either reclaimed water or groundwater to irrigate common areas and retained agricultural groves.
- By utilizing the new stormwater regulations, more efficient irrigation will be used; therefore, reducing the Proposed Project's water demand.
- The Proposed Project shall install low water usage appliances.
- The Proposed Project shall offset the remainder of its delivered water requirement by participating in an offset program with the SDCWA or MWD. The project will be required to develop an off-set program in conjunction with annexation into SDCWA or MWD. The Proposed Project shall provide net zero demand on Water Authority supplies, regardless of the existence of off-set programs.
- The on-site WWTP shall be located a minimum of 250 feet from any residences.

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Michael Baker
INTERNATIONAL

Appendix B:
2019 Addendum

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County of San Diego

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PLANNING & DEVELOPMENT SERVICES
5510 OVERLAND AVENUE, SUITE 310, SAN DIEGO, CA 92123
www.sdcounty.ca.gov/pds

AN ADDENDUM TO THE PREVIOUSLY CERTIFIED EIR MEADOWOOD SPECIFIC PLAN AND VESTING TENTATIVE MAP, PDS2004 3810-04-001, PDS2004-VTM-5354RPL4, PDS2004-VSTP-04-006

FOR PURPOSES OF CONSIDERATION MEADOWOOD MAJOR GRADING AND IMPROVEMENT PLANS AND SITE PLAN MINOR DEVIATIONS PDS2016-LDGRMJ-30100, PDS2016-LDMJIP-50028, PDS2017-LDMJIP-50037, PDS2017-LDMJIP-50038, PDS2019-STP-04-005M1, PDS2019-STP-04-006M1, PDS2019-STP-04-007M1

October 15, 2019

CEQA Guidelines, Section 15164(b) states that an Addendum to a previously certified EIR may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 or 15163 calling for the preparation of a subsequent or supplemental EIR have occurred.

Discussion:
There are some minor changes and additions, which need to be included in an Addendum to the previously adopted Negative Declaration to accurately cover the new project. The additions are underlined, and deletions are struck out. The changes and additions consist of the following:

1. To the Project Name add: MEADOWOOD MAJOR GRADING & IMPROVEMENT PLANS, & 3 SITE PLAN MINOR DEVIATIONS

2. To the Project Numbers add PDS2016-LDGRMJ-30100, PDS2016-LDMJIP-50028, PDS2017-LDMJIP-50037, PDS2017-LDMJIP-50038, PDS2019-STP-04-005M1, PDS2019-STP-04-006M1, PDS2019-STP-04-007M1

3. To the first paragraph add as indicated: "The EIR for this project is comprised of this form along with the Environmental Review Update Checklist Form for Projects with a Previously Approved Environmental Document dated January 11, 2012 which includes the following forms attached."

   A. An Addendum to the previously adopted Negative Declaration with an Environmental Review Update Checklist Form for Projects with a Previously Approved Environmental Document dated January 11, 2012.

   B. An Ordinance Compliance Checklist

County of San Diego

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KATHLEEN A. FLANNERY
ASSISTANT DIRECTOR

October 15, 2019

Environmental Review Update Checklist Form for Projects with Previously Approved Environmental Documents

FOR PURPOSES OF CONSIDERATION MEADOWOOD MAJOR GRADING AND IMPROVEMENT PLANS AND SITE PLAN MINOR DEVIATIONS PDS2016-LDGRMJ-30100, PDS2016-LDMJIP-50028, PDS2017-LDMJIP-50037, PDS2017-LDMJIP-50038, PDS2019-STP-04-005M1, PDS2019-STP-04-006M1, PDS2019-STP-04-007M1

The California Environmental Quality Act (CEQA) Guidelines Sections 15162 through 15164 set forth the criteria for determining the appropriate additional environmental documentation, if any, to be completed when there is a previously certified environmental impact report (EIR) covering the project for which a subsequent discretionary action is required. This Environmental Review Update Checklist Form has been prepared in accordance with CEQA Guidelines Section 15164(e) to explain the rationale for determining whether any additional environmental documentation is needed for the subject discretionary action.

1. Background on the previously certified EIR:

   An EIR for the Meadowood Project, GPA04-002; SP04-001; R04-004; VTM5354RPL4; VS04-005, S04-006, S04-007; P08-023 and Log No. ER 04-02-004 (2012 FEIR) was certified by the Board of Supervisors on January 11, 2012. The certified 2012 FEIR found significant effects to air quality (construction), biology, cultural resources, noise, and geology. These effects were determined to be mitigated or avoided to a level below significance. The 2012 FEIR also determined that significant impacts to aesthetics, air quality (operational), and traffic would remain significant and unavoidable. A Statement of Overriding Considerations pursuant to CEQA Guidelines Section 15091 (a)(3) was adopted. The 2012 EIR is included as Attachment A of this Addendum.

2. Lead agency name and address:
   County of San Diego, Planning & Development Services
   5510 Overland Avenue, Suite 110
   San Diego, CA 92123

   a. Contact Kenneth J. Brazell, Project Manager
   b. Phone number: (858) 694-2728
   c. E-mail: kenneth.brazell@sdcounty.ca.gov

3. Project applicant's name and address:
   Pardee Homes
   13400 Sabre Springs Parkway, Suite 200
   San Diego, CA 92128

4. Summary of the activities authorized by present permit/entitlement application(s):

   The updated Meadowood Vesting Tentative Map (Updated Plan) project entails the modifications of the lot layout and circulation within the approved project footprint in addition to the construction of an off-site storm drain access road and storm drainpipe outside of the project footprint. The updated map would redistribute dwelling-units within Planning Areas 1, 3, 4 and 5, as permitted by the Meadowood Specific Plan. The Updated Plan also results in changes to the locations of parks, trails, and circulation roadways, as well as the removal of the on-site wastewater treatment plant (WWTP), as detailed below. Approval of the Updated Plan would not change the number of units authorized by the approved project, nor would it result in additional entitlements beyond that previously approved. All changes meet the standards for substantial conformance with regard to the approved Specific Plan and Vesting Tentative Map.

5. Does the project for which a subsequent discretionary action is now proposed differ in any way from the previously approved project?

   YES ☒ NO ☐

   If yes, describe **ALL** differences.

   The 2012 FEIR analyzed environmental impacts associated with implementation of a Vesting Tentative Map (VTM), and associated discretionary actions, as proposed under the Meadowood Specific Plan SPA 04-001 (approved project). The approved project contains seven separate planning areas within the project site, each of which consists of a specific land use designation. Specifically, the approved project allows housing development within Planning Area 1, Planning Area 4, and Planning Area 5, totaling 844 dwelling units. Additionally, per the Meadowood Specific Plan Table 5-1, dwelling units may be moved to Planning Area 3 if the park is moved to an alternate location. The proposed action would implement an updated Vesting Tentative Map (Updated Plan), which would redesign the development layout within the project site in accordance with the Meadowood Specific Plan. The Updated Plan would not relocate or introduce any new planning areas (see Table 1). Rather, the Updated Plan would redistribute land uses within the seven planning areas, resulting in the same overall dwelling unit count as the original project (844 dwelling units).

Table 1 provides a comparison of the dwelling units allowed under the approved project and proposed under the Updated Plan. It should be noted that acreages reported in Table 1 are based on final engineering plans as reflected in the Substantial Conformance Review (SCR) graphics dated August 19, 2019. Refer to Figure 1 for the overall land use comparison of the approved project and the Updated Plan.

Table 1
Land Use Comparison

Planning Area	Approved Project per Specific Plan Table 5-1 Land Use Summary	Updated Plan per SCR graphics dated 8/19/ 2019	Difference between Approved Project and Updated Plan
PA-1[a]	26.1 acres 164 DU WWTP 0.59-acre cultural open space	25.6 acres 52 DU (9.2 acres) Park (8.8 acres) Open Space (7.6 acres)	Decrease of 0.5 acre Decrease of 112 DU Removal of WWTP Addition of sewer lift station & Passive Open Space. Relocation of Active Park to PA-1 (south). Increase in size of cultural open space area by 0.39 acre
PA-2	12.7 acres School Site (or 42 DU)	12.8 acres School Site (or 42 DU)	Increase in 0.1 acre
PA-3[a]	10.1 acres; 8.43-acre Park[b]	5.8 acres 49 DU	Decrease of 4.3 acres Increase of 49 DU Relocation of Park to PA-1 (south)
PA-4	24.0 acres 325 DU	32.6 acres 371 DU	Increase of 46 DU Increase of 8.6 acres
PA-5	132.5 acres 355 DU	131.6 acres 372 DU	Increase of 17 DU Decrease of 0.9 acres
PA-6[c]	47.5 acres (47.7 acres Dedicated Agricultural Open Space)	47.7 acres. Consistent with Dedicated Agricultural Open Space)	No Change
PA-7[d]	128.5 acres 122.3 acres Recorded Open Space	122.3 acres, consistent with Recorded Open Space	No Change
TOTAL[e]	Development areas: 205.4acres 844 DU	Development Areas: 208.4 acres 844 DU	Increase of 3 acres

[a]Per the Meadowood Specific Plan Table 5-1, dwelling units may be moved to PA-3 if the park is moved to an alternate location.
[b]10.1 acres refers to total lot size for PA-3; under the approved project, PA-3 was required to contain 8.43 acres of useable Park space
[c]PA-6 is now consistent with the recorded Agricultural Open Space easement which totals 47.7 acres
[d]PA-7 acreage is now consistent with the recorded Biological Open Space Easement which totals 122.3 acres
[e]The increase in development area acreage is modified to due final engineering design versus preliminary design associated with the VTM. The overall project footprint remains within the originally analyzed project footprint as shown on Figure 9.
DU = dwelling unit
WWTP = wastewater treatment plant

Overall, the Updated Plan would result in the following changes to the seven planning areas as identified in the approved project:

- Planning Area 1: change of land use designation for the southern portion of the planning area (south of Street R) from Multi-family and WWTP to Park and Open Space/Other, resulting in the addition of an active park, passive open space, a larger

cultural open space area, and a sewer lift station. Planning Area 1 dwelling units would be reduced by 112 for a total unit count of 52 dwelling units.

- Planning Area 2: increase in the size of the proposed school site by 0.1 acre.
- Planning Area 3: change of land use designation from Park to Multi-family, resulting in the removal of 8.43 acres of Park and the addition of 49 dwelling units to the planning area; gross acreage of the planning area decreases by 4.3 acres for a total of 5.8 acres.
- Planning Area 4: addition of 46 dwelling units; gross acreage of the planning area increases to 32.6 acres.
- Planning Area 5: addition of 17 dwelling units; gross acreage of the planning area reduced to 131.6 acres.
- Planning Area 6: acreage now consistent with the dedicated agricultural open space at 47.7 acres.
- Planning Area 7: acreage now consistent with the recorded Open Space Easement totaling 122.3 acres, consistent with the conclusion of Formal Section 7 Consultation with U.S. Fish and Wildlife Service (USFWS).

As shown in Figure 2, the Updated Plan would conform to the approved project and would not result in changes to overall dwelling unit count. The changes to the project described herein are allowed as detailed in Section 9.3 of the Specific Plan which describes the conditions that would require an amendment to the Specific Plan and what changes and modifications to the project would be allowed without a formal amendment. As stated in the Specific Plan:

> *Proposed modifications and revisions that are in substantial conformance with the Specific Plan Amendment text and exhibits may be considered minor modifications and shall not require another amendment to the Specific Plan Amendment and General Plan/Community Plan Amendment. The Planning Director shall have the authority to determine if the revision is minor in nature and in substantial conformance with the Specific Plan Amendment in accordance with the Director's authority. In all cases, revisions or minor modifications must be found to be in substantial conformance with the issues, goals and policies of the Specific Plan Amendment….*
>
> *… County staff is authorized, upon request of the developer, to allow changes to the Proposed Project without amending this Specific Plan Amendment provided any such change is not expressly prohibited by the Specific Plan Amendment and County staff determines no new significant impact will be created or no increase in a previously identified significant environmental effect will occur as a result of the requested change(s).*

Grading Conformance

Implementation of the Updated Plan would result in changes to the grading calculations for the project. The Updated Plan would result in an increase in cut and fill quantities but would remain a balanced grading operation. Total cut and fill quantities would increase by 410,200 cubic yards to 2,810,200 cubic yards. The increase in volumes of cut and fill are due to more detailed final engineering and evaluation of on-site soil conditions including bulking and reconfiguration of the site BMP basins. However, the overall grading balancing is retained, and grading cross-sections and design are consistent between the plans. As shown in Figure 3, the Updated Plan limits of grading would be in conformance with the approved project and all proposed grading under the Updated Plan would be consistent with the approved project. As shown in Figure 4, grading conformance cross sections, the Updated Plan would be in

conformance with the approved project and grading elevation changes would not exceed a 10 percent variance from the approved project and would be considered a minor change in substantial conformance to the Specific Plan.

Rockfall Hazards Mitigation Conformance

The method for mitigating potential rockfall hazards would be modified under the Updated Plan. The 2012 FEIR (Mitigation Measure M-GE-2) required boulders with a high potential for rock fall to be removed or bolted to slopes and other boulders would be tested to ensure they do not pose rockfall hazards. Due to hillside conditions that would require extensive habitat disturbances in order to carry out the testing of boulders, it was found that the recommendations for mitigating rockfall hazards in the 2012 FEIR would not be feasible. Specifically, the equipment needed to test boulders would require significant disturbance and some grading within an off-site area not evaluated in the original EIR for impacts. Additionally, grading and disturbance in this area would further impact tribal cultural resources encountered in the general area. In order to avoid these impacts, Geocon prepared an Alternate Recommendations for Rockfall Potential for the Meadowood project dated December 7, 2017, that describes the updated mitigation approach (Attachment B-1) and additional memo dated July 5, 2018 provided an update to the proposed wall location (Attachment B-2). As detailed in these memos, rockfall hazards would be addressed through installation of a rockfall barrier installed at the base of rosemary's mountain to a height of six feet above the ground surface within the right-of-way of Horse Ranch Creek Road. Refer to Attachment B-1 for a graphic of the proposed barrier. Landscape screening associated with the rockfall barrier is shown on the streetscape landscape plans as it will be located within the public right-of-way. These minor changes would implement a required mitigation measure of the 2012 FEIR. This change was found to be consistent with the Specific Plan Section 9.3 because the change is minor in nature and is proposed in order to protect biological and cultural resources. Specifically, Section 9.3 of the Specific Plan states, "Changes in design features such as paving, lighting, landscape treatments, fencing, signage, or alterations to elevations, floor plans, and/or site plans that do not change residential structure heights or number of stories" The addition of a rockfall wall along Horse Ranch Creek Road would fall within the category of minor changes in design features.

Streets Conformance

Internal roadways within the project site would be reduced from 16 roads to a total of 14 under the Updated Plan, resulting in a reduction of 1,491 total linear feet of roadway, from 19,100 linear feet to 17,609 linear feet, or a reduction of 7.8 percent. As shown in Figure 5, the Updated Plan street and circulation layout conforms to the approved project and would not result in a variance greater than 10 percent which would be considered a minor change in substantial conformance to the Specific Plan.

Open Space Conformance

The Updated Plan would not change the Biological Open Space or Agricultural Open Space required for the project. Per the Open Space Easement recorded for the Meadowood Project on October 30, 2014, the project site contains 122.3 acres of Biological Open Space. Per the Agricultural Preserve Easement recorded for the Meadowood Project on October 3, 2017, the project site totals 47.7 acres. These recorded open space areas remain unchanged.

Open space slope acreages would decrease by 10 acres from 52.5 acres to 42.5 acres. Open space (other) would increase by 14 acres, from 4.8 acres to 16.2 acres. Overall open

space within the project site would increase by 2.1 acres, resulting in an overall 1 percent total increase. As shown in Figure 6, the Updated Plan open space conforms to the approved project and would not result in a variance greater than 10 percent. The cultural open space within Planning Area 1 south is included within the Open Space other category on the SCR graphics. The cultural open space area is planned to be enlarged from 0.59 acre to approximately 1 acre. Open space acreages within these areas will be defined as part of the Final Map process and an updated cultural open space easement will be recorded prior to final map, after County approval of proposed easement area changes. All changes to open space acreages would be within a 10 percent change, which would be in substantial conformance to the Specific Plan.

Bio-retention Basin Conformance

The Updated Plan would require revisions to the layout of storm water Bio-retention basins throughout the project site. Landscape plans for the project site will reflect the updated locations of bio-retention basins. As shown in Figure 7, although the locations of the Bio-retention basins would change, the Updated Plan would design stormwater Best Management Practices (BMPs) in accordance with appropriate stormwater regulations in place at the time of approval.

Parks and Trails Conformance

The Updated Plan would result in an addition of park acreage and linear feet of trails within the project site. Total trail length throughout the project site would increase by 10,619 linear feet, from 32,700 linear feet to 43,319 linear feet, resulting in an increase of 32 percent. In addition, net public and private park acreage within the project site would increase by 3.9 acres, from 5.7 acres to 8.1 acres. The active public park would be moved from Planning Area 3 to Planning Area 1 and the size of the public park would increase from 5.2-acre net (10.1-acre gross) to 7.6 acre net (8.8 acre gross). Final acreages of the active park in Planning Area 1, and the passive open space areas surrounding the active park will be defined on the Final Map. As shown in Figure 8, the Updated Plan trail connectivity and parks conform to the approved project, and the Updated Plan provides a net increase in public park acreage as desired by the County of San Diego Parks and Recreation Department. All changes related to parks and trails comply with the original park and trail requirements and now more acreage and linear feet of park and trail amenities as desired by the County of San Diego Parks and Recreation Department. All changes are consistent with County requirements and would be in substantial conformance to the Specific Plan.

Biological Opinion Conformance

A USFWS Biological Opinion for the Meadowood Project was issued on July 12, 2018, which addresses the potential effects of the proposed project on the federally endangered least Bell's vireo and arroyo toad and on designated critical habitat for the federally threatened coastal California gnatcatcher, in accordance with Section 7 of the Endangered Species Act of 1973. As part of the proposed project, the implementation of the conservation measures listed in the BO will offset, avoid, and minimize impacts to listed species listed above. As shown in Figure 9, the Updated Plan Biological Opinion conformance map shows that the Updated Plan development footprint falls within the same limits of disturbance as previously analyzed. Biological impacts associated with the construction of the off-site storm drain access road and storm drainpipe would be mitigated consistent with the original project mitigation measures as detailed in Section IV, Biological Resources, including the requirement for revegetation of disturbed slopes consistent with a County-approved

Revegetation Plan. Additionally, the project redesign is consistent with what has been provided to the USFWS and documented in the USFWS Biological Opinion.

Water and Wastewater Conformance

Under the Updated Plan, potable water would be delivered to the site from Valley Center Municipal Water District (VCMWD) and no wastewater treatment plant would be constructed on-site. Wastewater would be delivered either to VCMWD or to Rainbow Municipal Water District wastewater treatment plants and 100 percent of wastewater would be recycled and reused by the respective districts. Recycled water would no longer be used as an irrigation water supply source for the project and common area landscape areas will now require potable water use for irrigation. Additional details on the water use and conservation efforts under the Updated Plan are provided in Section XVIII Utilities and Service Systems. Changes related to water and wastewater would not result in any new or more severe impacts and would be in substantial conformance to the Specific Plan.

SDG&E 69kV Relocation

San Diego Gas and Electric (SDG&E) maintains an existing 69-kilovolt (kV) aerial system running east to west through the Meadowood project site that would be relocated from its present position to an alignment that runs to the south along the widened parkway of Horse Ranch Creek Road, east along the south edge of "Meadowood Street," and connecting southeast to the existing aboveground 69kV pole. The blue line in Figure 10 shows the location of the proposed undergrounding portion of the relocation and the yellow lines show the aboveground portion of the relocation.

The VTM approved for the Meadowood project showed an easement for public utilities in favor of SDG&E along this general relocation route but did not specifically identify relocation of the 69kV line. The Approved VTM identified overhead utilities would be constructed along the proposed utility line relocation route, running parallel Horse Ranch Creek Road. Under the Approved VTM, approximately 2,100 feet of the 69kV line was approved to be on a combination of wood or steel poles, while 2,400 feet would be undergrounded.

The Updated Plan would specifically authorize relocation of the existing 69kV aerial system running east–west through the Meadowood project site, with overhead lines running along Horse Ranch Creek Road and the 69kV line being undergrounded along an east-west relocation route south of Meadowood Street (Figure 10). This relocation is consistent with the relocation route identified on the approved VTM. The 69-kV line would be undergrounded starting at Horse Ranch Creek Road and Meadowood Street and would follow an east west easement located south of Meadowood Street. The SDG&E easement would be located just south of the proposed County trail easement located adjacent to Meadowood Street. As the line heads east, it would veer south to the rear of residential lots adjacent to Meadowood Street. Further east, the SDG&E easement would cross the proposed County trail easement; however, no conflicts have been identified with this easement crossing location. At this point, the undergrounded 69 kV line would veer east and begin an aboveground length connecting to the existing aboveground 69 kV pole and line. The aboveground portion of the utility lines along Horse Ranch Creek Road are consistent with the original VTM easement location. The underground portion of the utility line relocation would be approximately 2,508 linear feet, more than the originally estimated 2,400 feet of undergrounding. The proposed SDG&E alignments would include a 20-foot SDG&E easement within which no planting or irrigation would be allowed in order to allow for maintenance vehicle access. Figure 10 shows the

proposed 69kV system compared to the existing alignment. All proposed grading would be within the limits of disturbance of the Approved VTM, as evaluated in the Final EIR.

Off-Site Storm Drain Access Road and Storm Drainpipe

The Updated Plan includes an off-site County easement for the construction of a storm drain access road and storm drainpipe on approximately 0.2 acre adjacent to Horse Creek Ranch Road (Figure 11) that was not analyzed in the original EIR. Installation of the access road, on Palomar College property, was requested by the San Diego County Flood Control District during review of final engineering and improvement plans for the Meadowood project. The road would allow vehicular access to existing and proposed storm drainpipe outfalls for maintenance, repair, construction, and inspection. Vehicular access would be provided from Horse Creek Ranch Road. From the roadway access point, the access road would be graded at an approximate slope of 11 percent to the northwest for approximately 180 feet, extending to the proposed storm drain culvert, and at an approximate slope of 10 percent to the southeast for approximately 170 feet to an existing storm drain culvert. The access road would be approximately 16 feet wide. Approximately 850 cubic yards of fill would be placed and graded at a 2:1 slope along the westerly edge of the access road. All temporarily impacted slopes would be revegetated consistent with the County grading ordinance and Meadowood revegetation requirements for temporary off-site impacts as shown in the Revegetation Plan and associated revegetation landscape plans for off-site temporary impacts. Approximately 50 cubic feet of cut would be removed at the northwesterly edge of the access road, south of the proposed culvert area. Changes related to grading for the storm drain access road would not result in any new or more severe impacts and would be in substantial conformance to the Specific Plan.

Noise Wall Conformance

Details on the noise wall changes are provided in Attachment C of this memo and summarized here. Noise impacts were previously assessed in the Noise Technical Report for the Meadowood Project EIR. Based on the previous analysis, portions of the project site would be affected by future traffic noise from Interstate 15 (I-15), State Route 76 (SR-76), the future alignments of Pala Mesa Drive and Street R, and the proposed Horse Ranch Creek Road. It was determined that all Planning Areas would require noise barriers ranging from 3 to 10 feet in height to reduce noise levels to comply with the County noise standards. The required noise walls for the original project design were refined (and reduced) based on an evaluation using grading plans for the original project design. Since the project has been redesigned, a noise evaluation was completed for the Updated Plan based on the revised grading plan (see Attachment C). The noise wall requirements for the original project compared to the Updated Plan are presented in Table 2. The noise evaluation determined that the Updated Plan based on the revised grading plan would not require any noise walls. These changes are within a 10 percent change compared to the original project.

Table 2 Comparison of Noise Barrier Requirements					
Planning Area	Barrier Height (feet)	Original Project Grading Plans		Updated Plan Grading Plans	
		Noise Barrier Length (feet)	Number of Lots Affected	Noise Barrier Length (feet)	Number of Lots Affected
Planning Area 1	4	1,942	14	0	0
	8	1,742	29	0	0
Planning Area 5	3	950	14	0	0
	4	1,320	16	0	0
	5	0	0	0	0
TOTAL		**5,954**	**73 (9% of lots)**	**0**	**0 (0% of lots)**
Percent Change = 9% reduction in the number of lots that require noise barriers					

Conclusion

The Updated Plan is reflected on project-related improvement and grading plans. This Addendum to the 2012 FEIR provides an evaluation of the proposed changes to project development associated with the Updated Plan and supports the determination that, pursuant to CEQA Guidelines Sections 15162 through 15164, implementation of the Updated Plan would not trigger the requirement for a subsequent or supplemental EIR. Overall, as detailed below, implementation of the Updated Plan would not result in any new impacts nor add to the severity of any of the significant impacts previously identified in the 2012 FEIR.

6. **SUBJECT AREAS DETERMINED TO HAVE NEW OR SUBSTANTIALLY MORE SEVERE SIGNIFICANT ENVIRONMENTAL EFFECTS COMPARED TO THOSE IDENTIFIED IN THE PREVIOUS ND OR EIR**. The subject areas checked below were determined to be new significant environmental effects or to be previously identified effects that have a substantial increase in severity either due to a change in project, change in circumstances or new information of substantial importance, as indicated by the checklist and discussion on the following pages.

☒ NONE

☐ Aesthetics
☐ Agriculture and Forest Resources
☐ Air Quality
☐ Biological Resources
☐ Cultural Resources
☐ Geology & Soils
☐ Greenhouse Gas Emissions
☐ Hazards & Hazardous Materials
☐ Hydrology & Water Quality
☐ Land Use & Planning
☐ Mineral Resources
☐ Noise
☐ Population & Housing
☐ Public Services
☐ Recreation
☐ Transportation/Traffic
☐ Tribal Cultural Resources
☐ Utilities & Service Systems
☐ Mandatory Findings of Significance

DETERMINATION:

On the basis of this analysis, Planning & Development Services has determined that:

☒ No substantial changes are proposed in the project and there are no substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previously certified EIR due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Also, there is no "new information of substantial importance" as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, the previously certified EIR is adequate upon completion of an ADDENDUM.

☐ No substantial changes are proposed in the project and there are no substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous EIR or ND due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Also, there is no "new information of substantial importance" as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, because the project is a residential project in conformance with, and pursuant to, a Specific Plan with a EIR completed after January 1, 1980, the project is exempt pursuant to CEQA Guidelines Section 15182.

☐ Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous ND due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3). However, all new significant environmental effects or a substantial increase in severity of previously identified significant effects are clearly avoidable through the incorporation of mitigation measures agreed to by the project applicant. Therefore, a SUBSEQUENT ND is required.

☐ Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous ND or EIR due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, a SUBSEQUENT or SUPPLEMENTAL EIR is required.

Kenneth J. Brazell
Signature

October 15, 2019
Date

Kenneth J. Brazell
Printed Name

Project Manager
Title

Map Source: Placeworks

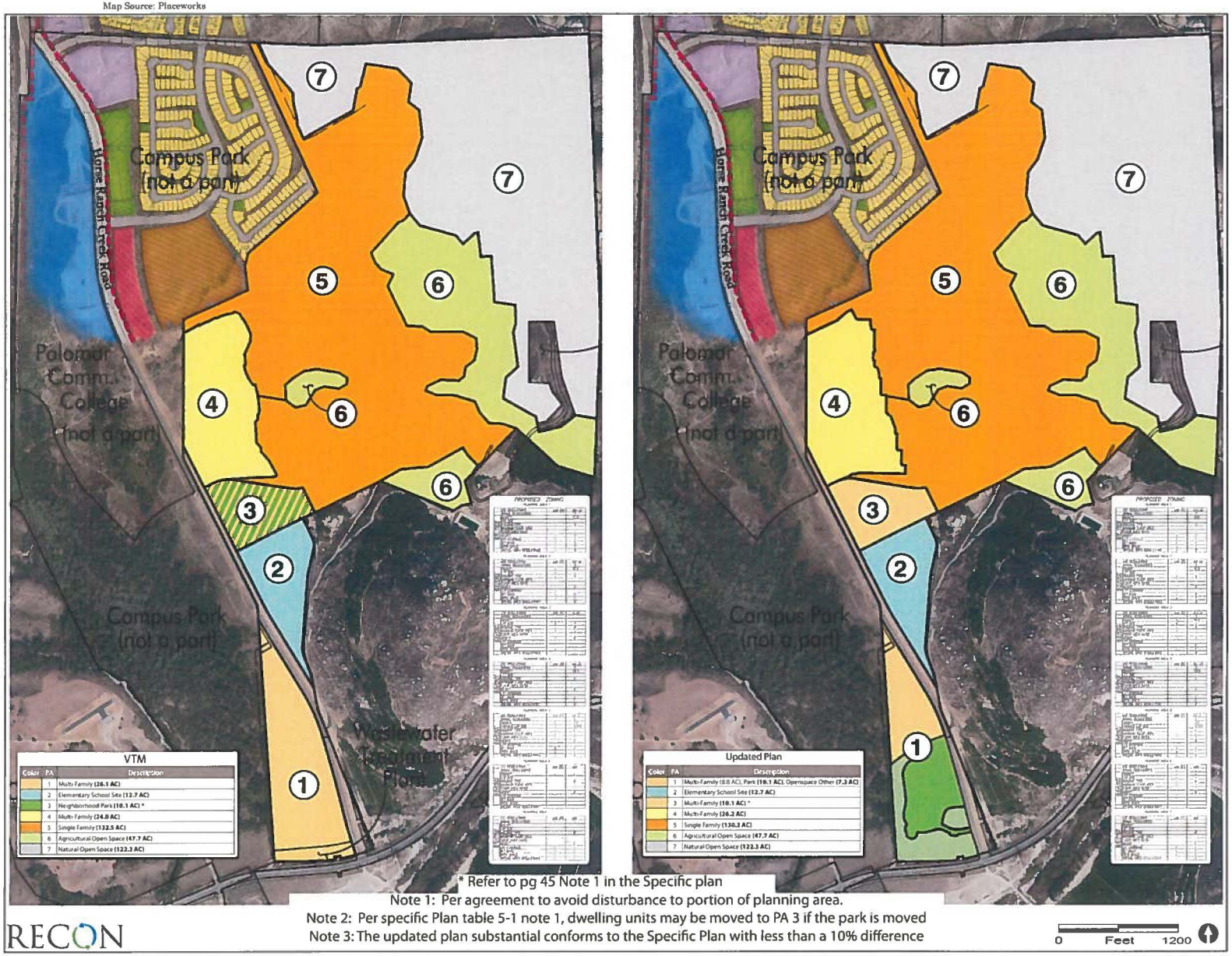
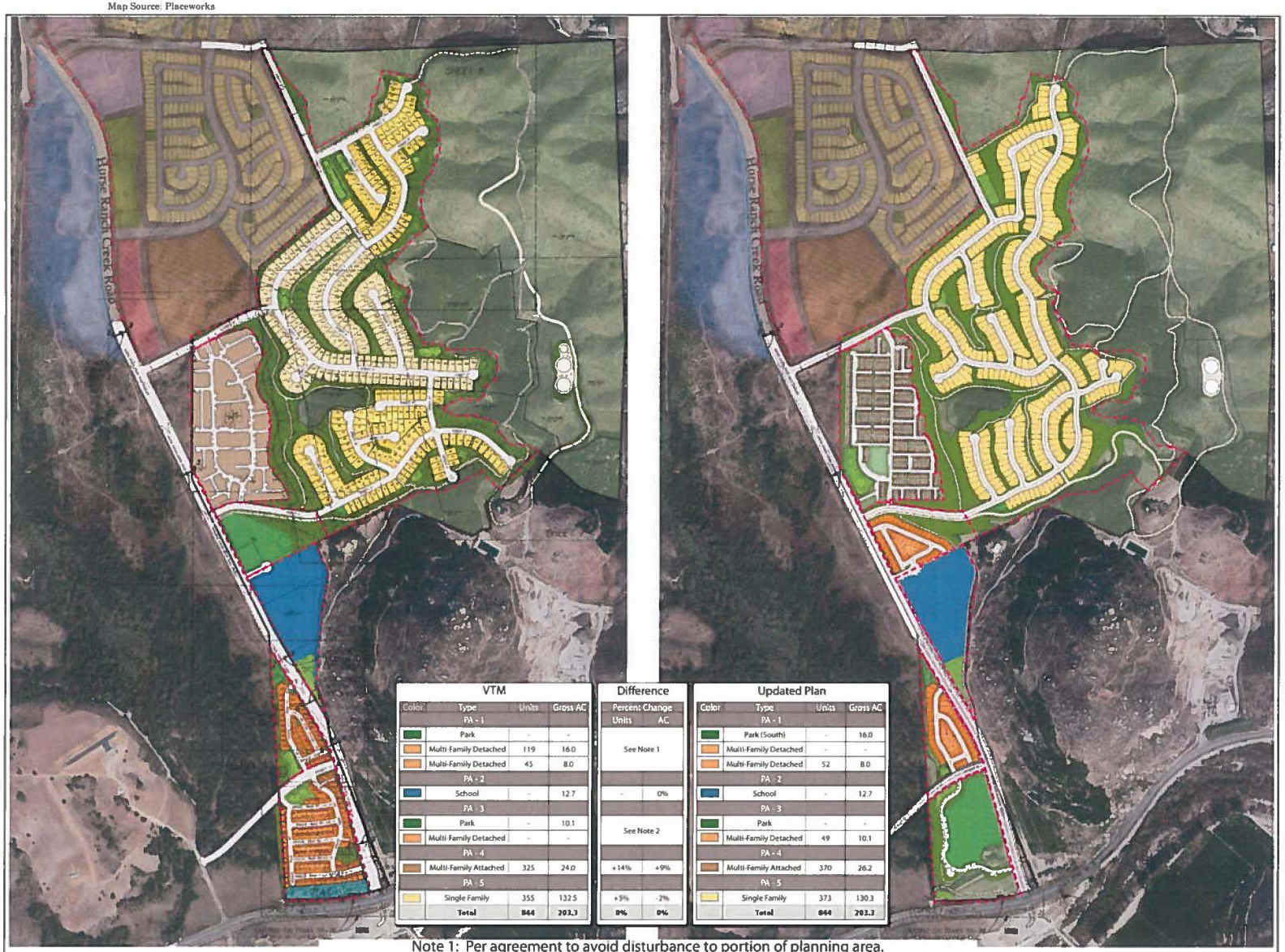


FIGURE 1
Land Use Plan Conformance

Map Source: Placeworks



VTM			
Color	Type	Units	Gross AC
	PA - 1		
	Park	-	-
	Multi-Family Detached	119	16.0
	Multi-Family Detached	45	8.0
	PA - 2		
	School	-	12.7
	PA - 3		
	Park	-	10.1
	Multi-Family Detached	-	-
	PA - 4		
	Multi-Family Attached	325	24.0
	PA - 5		
	Single Family	355	132.5
	Total	844	203.3

Difference		
Percent Change		
Units	AC	
See Note 1		
-	0%	
See Note 2		
+14%	+9%	
+5%	-2%	
0%	0%	

Updated Plan			
Color	Type	Units	Gross AC
	PA - 1		
	Park (South)	-	16.0
	Multi-Family Detached	-	-
	Multi-Family Detached	52	8.0
	PA - 2		
	School	-	12.7
	PA - 3		
	Park	-	-
	Multi-Family Detached	49	10.1
	PA - 4		
	Multi-Family Attached	370	26.2
	PA - 5		
	Single Family	373	130.3
	Total	844	203.3

Note 1: Per agreement to avoid disturbance to portion of planning area.
Note 2: Per specific Plan table 5-1 note 1, dwelling units may be moved to PA 3 if the park is moved
Note: The updated site plan conforms to the approved VTM with less than a 10% difference

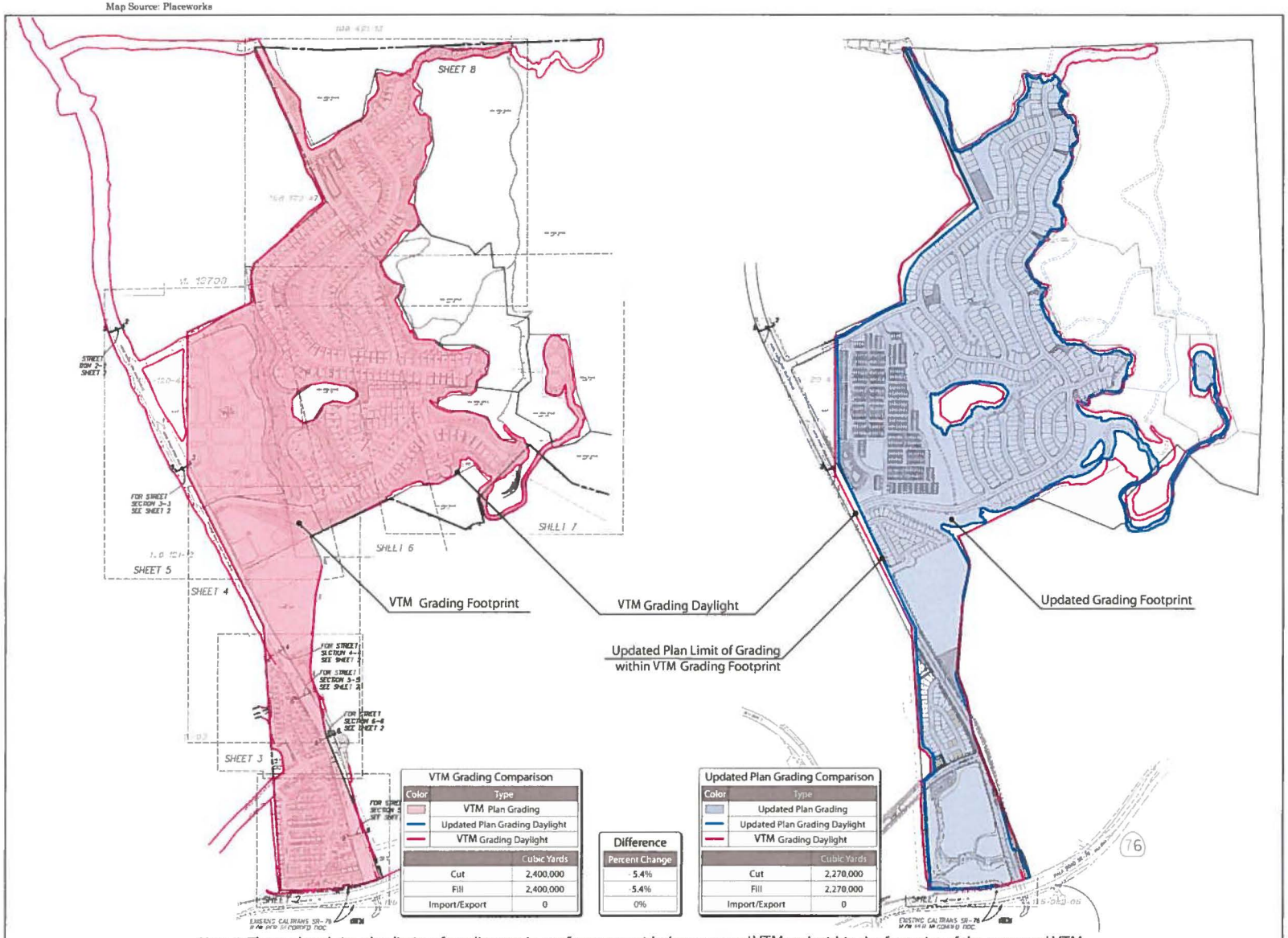
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FIGURE 2
Site Plan Conformance

Map Source: Placeworks



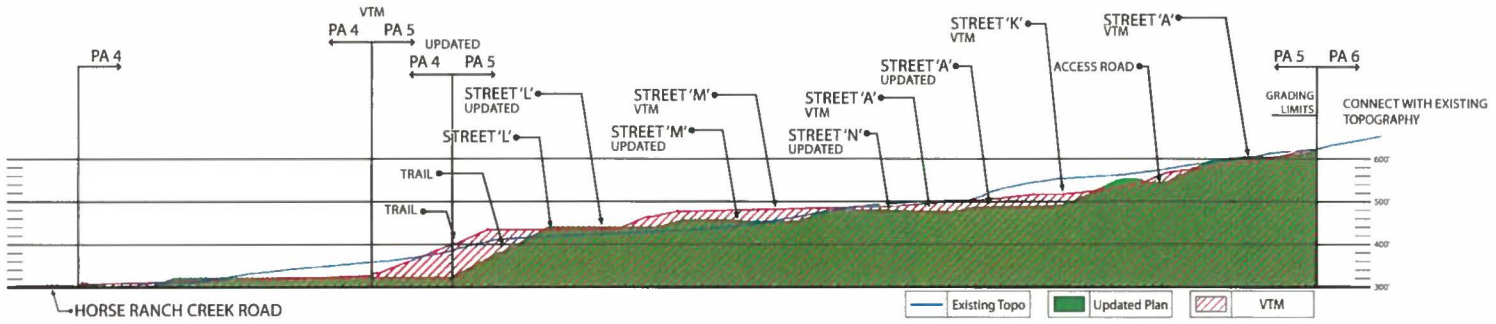
Note 1: The updated site plan limits of grading are in conformance with the approved VTM and within the footprint of the approved VTM
Note 2: The updated site plan balances onsite, with no export or import of dirt required and reduces the amount of grading required
Note: Calculations are Approximate

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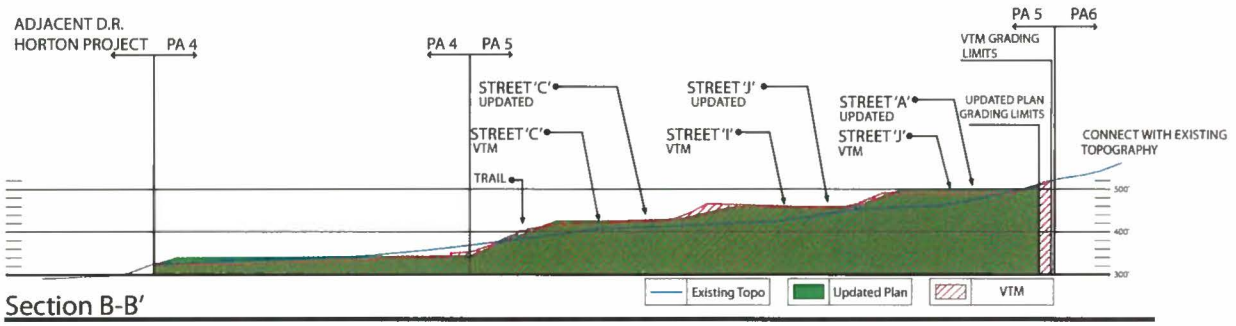
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FIGURE 3
Grading Conformance

Map Source: Placeworks

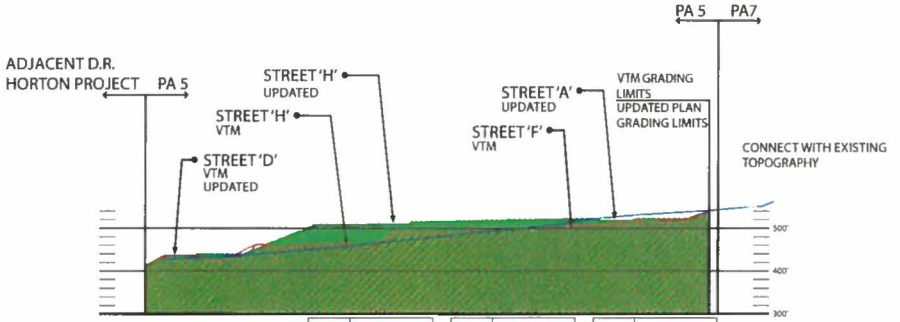


Section A-A'



Section B-B'





Section C-C'

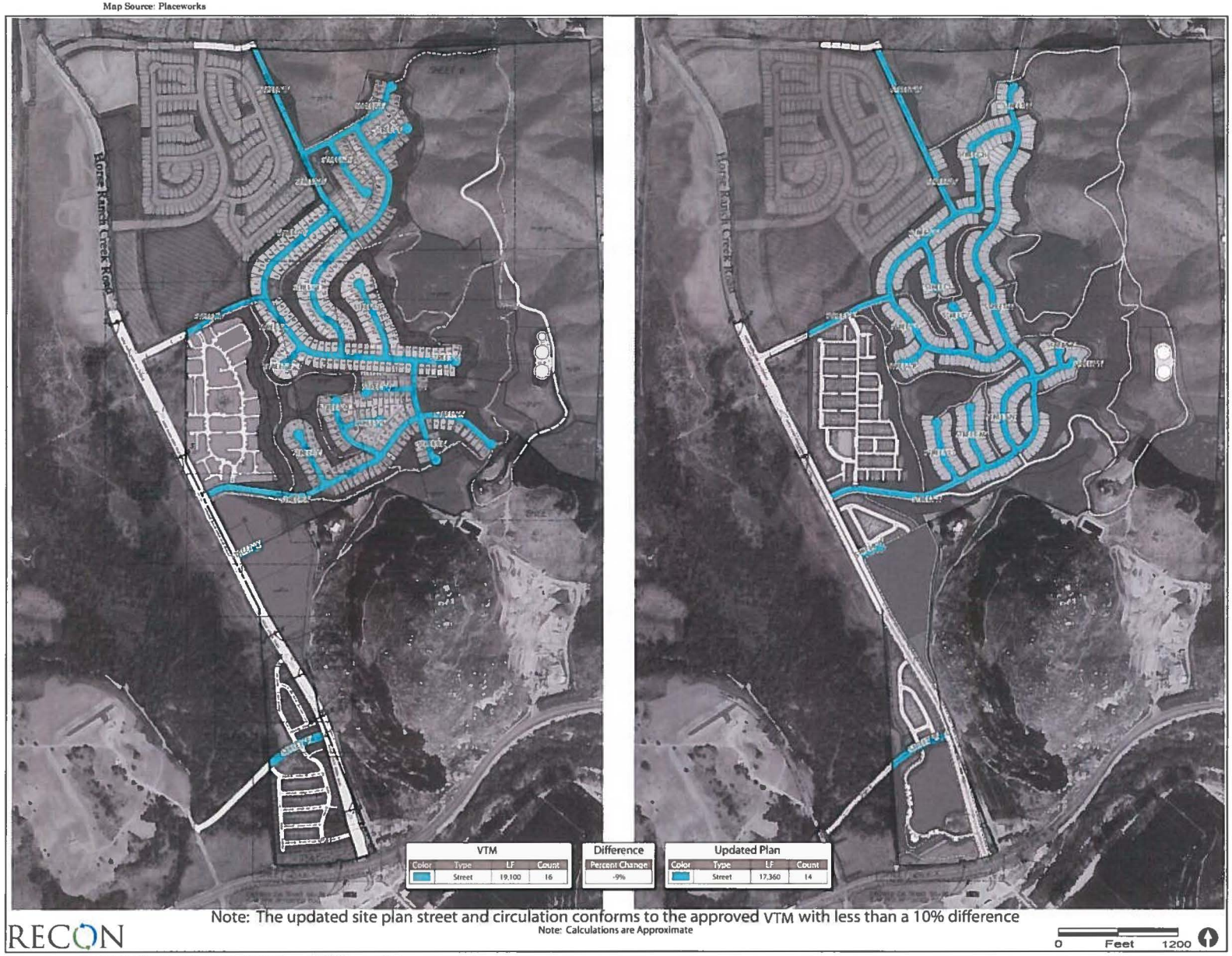
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Note 1: The updated site plan is in conformance with the approved VTM and within less than a 10% grade differential change

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FIGURE 4
Grading Conformance
Cross Sections

Map Source: Placeworks



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FIGURE 5
Street and Access Conformance

Map Source: Placeworks

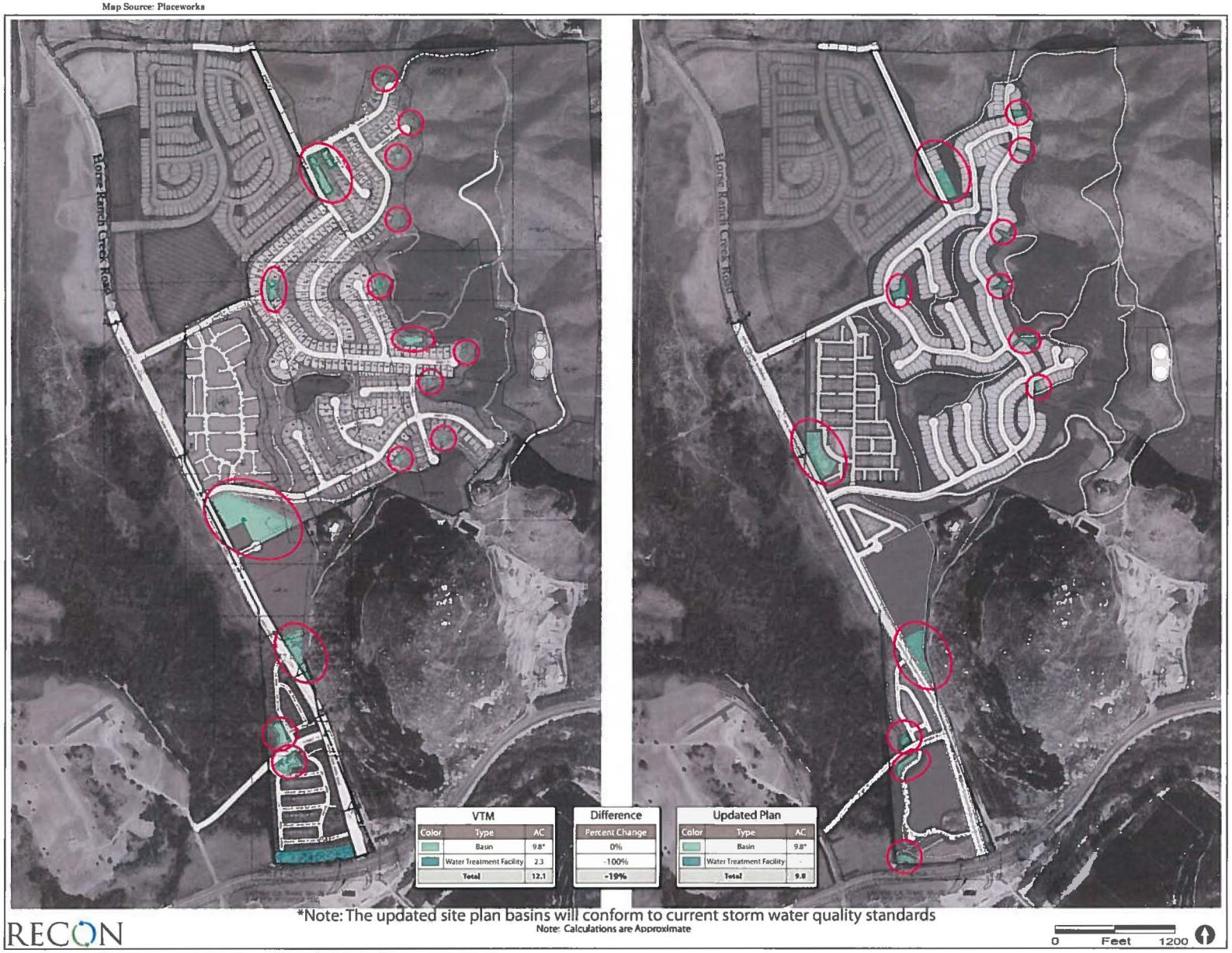


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FIGURE 6
Open Space Conformance

Map Source: Placeworks



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FIGURE 7
Basin Conformance

Map Source: Placeworks



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FIGURE 8
Trail and Access Conformance

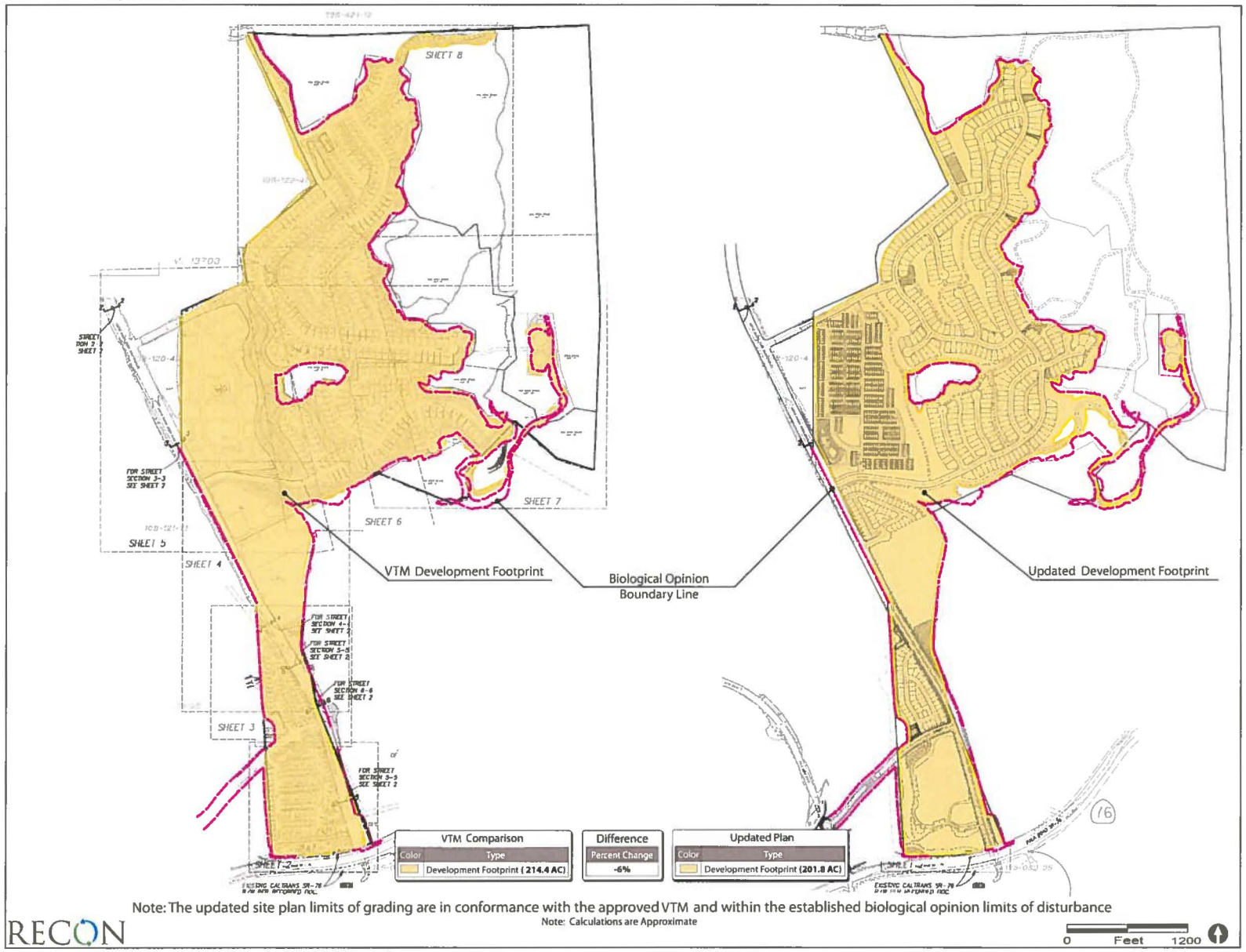


FIGURE 9
Biological Opinion
Conformance

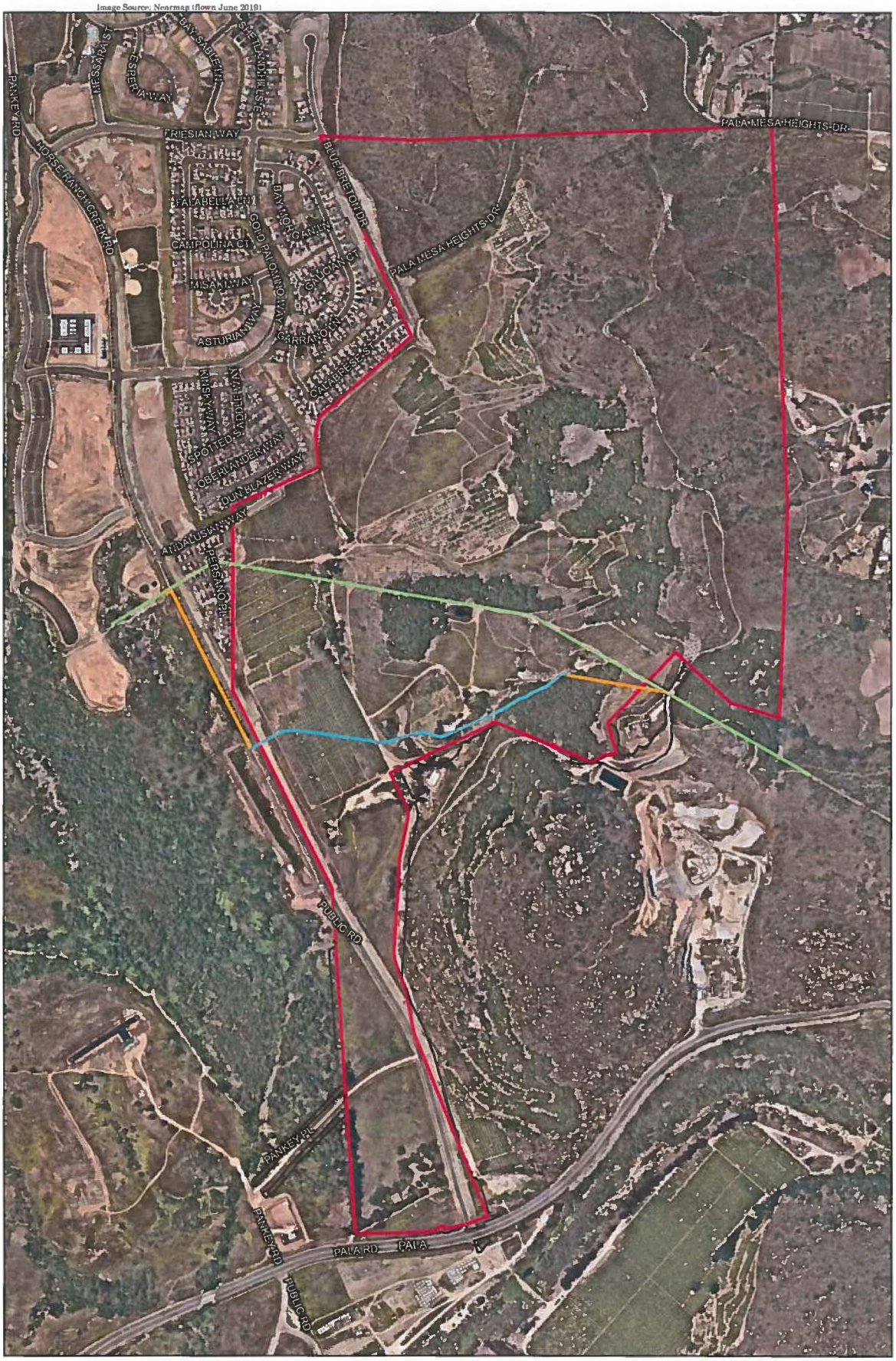


FIGURE 10

Proposed SDG&E 69kV System Compared to the Approved VTM

Image Source: NearMaps (flown June 2019)



Off-Site Flood Control Access Road
Access Road Slope
Proposed Storm Drain Pipe
Proposed Riprap Area

0 Feet 60

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FIGURE 11
Off-Site Flood Control Access Road

INTRODUCTION

CEQA Guidelines Sections 15162 through 15164 set forth the criteria for determining the appropriate additional environmental documentation, if any, to be completed when there is a previously adopted Negative Declaration or a previously certified EIR for the project.

CEQA Guidelines, Section 15162(a) and 15163 state that when a Negative Declaration has been adopted or an EIR certified for a project, no Subsequent or Supplemental EIR or Subsequent Negative Declaration shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in light of the whole public record, one or more of the following:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:
    a. The project will have one or more significant effects not discussed in the previous EIR or Negative Declaration; or
    b. Significant effects previously examined will be substantially more severe than shown in the previously adopted Negative Declaration or previously certified EIR; or
    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
    d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous Negative Declaration or EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

CEQA Guidelines, Section 15164(a) states that an Addendum to a previously certified EIR may be prepared if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a Subsequent or Supplemental EIR have occurred.

CEQA Guidelines, Section 15164(b) states that an Addendum to a previously adopted Negative Declaration may be prepared if only minor technical changes or additions are necessary.
If the factors listed in CEQA Guidelines Sections 15162, 15163, or 15164 have not occurred or are not met, no changes to the previously certified EIR or previously adopted ND are necessary.

The following responses detail any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial

importance" that may cause one or more effects to environmental resources. The responses support the "Determination," above, as to the type of environmental documentation required, if any.

ENVIRONMENTAL REVIEW UPDATE CHECKLIST

Table 3 below provides a summary of the impacts assessed in this addendum in comparison to the impacts assessed in the 2012 FEIR.

Table 3
Impact Assessment Summary

Environmental Issues	2012 FEIR Finding	2018 Addendum Finding	New Mitigation?
Aesthetics	Significant and Unmitigated	No new impacts	No
Agricultural Resources	Less than Significant	No new impacts	No
Air Quality	Significant and Unmitigated	No new impacts	No
Biological Resources	Less than Significant with Mitigation	No new impacts	No
Cultural Resources	Less than Significant with Mitigation	No new impacts	No
Geology and Soils	Less than Significant with Mitigation	No new impacts	No
Greenhouse Gas Emissions	Less than Significant	No new impacts	No
Hazards and Hazardous Materials	Less than Significant with Mitigation	No new impacts	No
Hydrology and Water Quality	Less than Significant	No new impacts	No
Land Use and Planning	Less than Significant	No new impacts	No
Mineral Resources	Less than Significant	No new impacts	No
Noise	Less than Significant with Mitigation	No new impacts	No
Population and Housing	Less than Significant	No new impacts	No
Public Services	Less than Significant	No new impacts	No
Recreation	Less than Significant	No new impacts	No
Transportation/Traffic	Significant and Unmitigated	No new impacts	No
Tribal Cultural Resources	Not included	No new impacts	No
Utilities and Service Systems	Less than Significant	No new impacts	No

I. AESTHETICS – Since the previous EIR was certified, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to aesthetic resources including: scenic vistas; scenic resources including, but not limited to, trees, rock outcroppings, or historic buildings within a state scenic highway; existing visual character or quality of the site and its surroundings; or day or nighttime views in the area?

YES ☐ NO ☒

Section 2.1.3 of the 2012 FEIR provides an analysis of visual impacts associated with the approved project.

Change in Visual Patterns (Issue 1): The 2012 FEIR determined that while the proposed patterns of development would contrast with the existing agricultural and rural setting surrounding the project site, the approved project would result in less than significant visual impacts through implementation of the Community Design Guidelines included in the Meadowood Specific Plan Amendment. Specifically, the Specific Plan includes site planning, architectural guidelines, and a landscape plan, the implementation of which would reduce potential significant impacts associated with the visual inconsistency of the built-out project site compared to surrounding lands. Visual quality impacts associated with buildout of the project were, therefore, determined to be less than significant. Impacts associated with short-term construction of the project would

be significant (Impact A-1). While the approved project incorporates features to enhance the visual quality of development and avoid inconsistency with the existing visual character of the project area, the 2012 FEIR determines that there is no mitigation available to lessen the short-term effects of project construction and impacts would remain significant and unmitigable.

Change in Visual Quality (Issue 2): The 2012 FEIR determined that due to the conservation of 122.4 acres of existing natural habitat as permanent open space, sensitive grading, clustering of homes, conservation of major drainages, and retention of 47.7 acres of existing groves, project impacts to the quality of the existing visual resources would be less than significant.

Change in Visual Environment of Scenic Highway/Vista (Issue 3): The 2012 FEIR includes a visual assessment of Key Observation Points to determine whether construction of the project would degrade views of Interstate 15 (I-15) (County designated Third Priority Scenic Route and a State "Eligible" Scenic Highway), and other public roadways and trails. As reflected in visual simulations (2012 FEIR Figures 2.1-20 through 2.1-26) public views would not be adversely affected due to implementation of the architectural and design guidelines contained within the Specific Plan. The locations of the viewpoints utilized in the 2012 FEIR are shown in Figure 12.

Light and Glare (Issues 4 and 5): The project site is located within Zone B, as it is outside of a 15-mile radius of the Palomar Observatory and the Mount Laguna Observatory. The 2012 FEIR determines that through project compliance with County regulations (Light Pollution Code) and design guidelines contained within the Specific Plan, lighting impacts would be less than significant.

Conformance with Regulations (Issue 6): The 2012 FEIR determines that the project would comply with all applicable visual goals and policies, including the applicable state and County Scenic Highway policies, the Fallbrook Community Plan and Community Beautification and Design Goals, the I-15 Corridor Scenic Preservation Guidelines, and the County RPO requirements. Table 2.1-1 of the 2012 FEIR outlines the proposed project's conformance with the I-15 Corridor Scenic Preservation Guidelines. Through such conformance, impacts associated with noncompliance would be less than significant.

Cumulative Impacts: The cumulative study area for aesthetic impacts is comprised of the project site's viewshed, which was determined through the analysis of aerial photographs and topographic maps. Details of the project viewshed are discussed in the 2012 FEIR subsection 2.1.4. Overall, the 2012 FEIR determines that the construction of the project along with other known cumulative projects within the cumulative project area would result in the introduction of a suburban element into the primarily agricultural area. This change in the composition of the project area would result in significant cumulative impact (Impact A-2). Additionally, the cumulative effects of the proposed project along with the other identified cumulative project would result in a significant impact to views from public trails (Impact A-3). While the approved project incorporates features to enhance the visual quality of development and avoid inconsistency with the existing visual character of the project area, the 2012 FEIR determines that there is no mitigation available to lessen the cumulative effects of project construction and impacts would remain significant and unmitigable.

Updated Plan

While the Updated Plan would result in an overall change to the layout of the residential uses within the planning areas of the project site, overall construction of the Updated Plan would be confined to the same development footprint compared to the approved project with the exception

of the construction of the off-site storm drain access road and storm drain pipe (see Figure 11). Grading changes within the project footprint would be consistent in terms of overall design and cross-sections. There would be no increase in the area of development and no change in the amount or location of biological or agricultural open space areas that would be preserved. Overall cut and fill quantities have been refined showing an increase in the total volume of cut and fill after considering site specific soil conditions, bulking factors, and reconfiguration of site BMP basins. While the overall volumes have increased, grading would continue to be balanced and the ultimate location of graded areas would not substantially change. Additionally, there would be a reduction in required blasting of rock. As a result of these changes to the grading approach, it is estimated that approximately 15 acres of exposed rock that would not support landscaping will be present within project slope areas. These exposed rock areas would be visually consistent with the existing surrounding visual environment as the natural landscape is includes a substantial amount of exposed rock. The additional areas of exposed rock and unvegetated slopes would not represent a significant visual impact due to their consistency with the existing surrounding geology.

Aesthetic impacts associated with construction of the storm drain access road would combine with temporary aesthetic impacts identified for overall project grading/construction due to the presence of construction equipment, which would contrast with existing conditions due to removal of existing vegetation and the introduction of new, visually dominant elements such as cut or fill slopes, construction fencing, construction equipment, and construction materials stockpiling and storage. Construction activities would disrupt the existing visual character of the area but would be typical of other construction activities of this size. Temporary impacts associated with grading slopes for the storm drain access road would be revegetated with similar species that currently exist on the slope including coastal sage scrub, thereby lessening the overall visual impact. All off-site revegetated areas would be monitored and managed for five years to ensure naturalized habitat is established. Revegetation of these off-site slopes is detailed in the project's Revegetation Plan. Furthermore, mitigation measures, identified in the Final EIR, would be implemented to reduce significant visual impacts during construction to the greatest degree feasible. Although significant impacts would remain after implementation of these measures, a Statement of Overriding Considerations was adopted for the Meadowood project, which provides beneficial justification for the significant unmitigated impacts. The off-site access road would not require major revisions to the previous EIR due either to new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Therefore, the construction of the storm drain access road would not create a new significant impact and no new mitigation would be required.

In order to address potential rockfall hazards associated with Rosemary's Mountain, the Updated Plan would construct a rockfall barrier at the base of the mountain, along the east side of Horse Ranch Creek Road, north and south of Pankey Place (Street R) in PA-1 and along the southeastern edge of PA-2, south of the detention basin as shown in the Attachment B-2. While this wall was not originally anticipated in the 2012 EIR, it was found that the original recommendation to remove boulders of concern would have resulted in destruction of habitat within a sensitive area. This mitigation alternative was identified to address potential rockfall hazards while minimizing environmental damage. The rockfall barrier would extend to the height of six feet above the ground surface with one foot of wall embedded into the ground. Landscaping (vines) would be planted along these walls in order to screen them from view and soften their appearance. Construction of the rockfall barrier would not represent a visual substantial change that would result in new significant impacts.

The development parameters (i.e., structure height limits) and design guidelines contained within the Specific Plan would remain the same under the Updated Plan. While the Updated Plan includes additional dwelling units in Planning Areas 3, 4, and 5, all applicable Specific Plan design standards would continue to apply, and the project grading footprint and cross-sections would not substantially change. The Updated Plan would require a balance of 2,810,200 cubic yards of cut and fill, while the approved VTM called for a balance of 2,400,000 cubic yards of cut and fill. While the Updated Plan would result in increased overall grading quantities, the grading operation would continue to be balanced with no import or export and ultimate elevations would substantially conform to the original grading plan and elevations. The main reason for updated grading quantities is due to more refined engineering design including reconfigured BMP basins and more accurate accounting for bulking. Overall net park and trail acreage would increase by approximately 42 and 32 percent, respectively. The visual pattern and composition of the project would be similar to the previous visual pattern and composition of the approved project. Of the visual simulations completed for the original project, two views were identified that would provide the best opportunity to visualize changes resulting from the Updated Plan (Views 6 and 7 as identified on Figure 12). Updated photo simulations were prepared for Views 6 and 7 to reflect the Updated Plan. Figure 13a shows the current site conditions and the Updated view with the Updated Plan from View 6. Figure 13b compares the approved project view to the Updated Plan view. Figure 14a shows the current site conditions from View 7 in addition to the view that would result with the Updated Plan. Figure 14b compares the approved project view to the Updated Plan view. It should be noted that since the visual simulations were prepared, there were minor revisions to the Updated Plan design layout in Planning Area 5. Changes affected roadway configuration within the northernmost portion of Planning Area 5, but overall grading elevations and visibility of the project site as shown on the photo simulations would not change. As shown in Figures 13b and 14b, the view of the project site would be substantially the same as under the original project design. Furthermore, due to the distance of these views from Interstate 15 and the small window of time that motorists would experience these views, there would be no discernable visual change between the approved project and the Updated Plan. Updated Plan would not adversely affect surrounding views. Overall, the Updated Plan would not significantly change views into the project site compared to the approved project.

The relocation and construction of the aerial SDG&E 69kV system would not result in new previously undisclosed impacts nor add to the significant unavoidable short-term construction impacts identified in the Final EIR. Overhead utility lines along Horse Ranch Creek Road were anticipated with the original project and shown on the approved VTM. Similar to the original plan, the Updated Plan would provide an aboveground 69kV line along Horse Ranch Creek Road and would underground the 69-kV line through the development area and would connect to an existing aboveground line to the east. Additionally, all grading and construction activities required for the construction of the power lines would occur within the approved development footprint pursuant to the VTM. Therefore, there would be no overall increase or severity of visual impacts associated with the construction of the system beyond that previously discussed in the Final EIR. Based on the above, the proposed 69 kV utility line relocation would not substantially increase the previously identified significant unmitigated impacts.

The Updated Plan would continue to implement the site planning, architectural guidelines, and landscape plans as previously approved; as a result, buildout of the Updated Plan would result in less than significant impacts associated with Issues 1, 2 and 3. The Updated Plan is required to adhere to all County regulations resulting in less than significant impacts to Issues 4, 5, and

6. Like the approved project, visual impacts relative to short-term construction (Impact A-1) would remain significant with no feasible mitigation.

The impact analysis related to the 2012 FEIR Issues 1 through 6 would apply to the Updated Plan as there are no conditions as delineated in CEQA Guidelines Section 15162, which trigger the requirement for a new analysis. There would be no new impacts nor an overall increase in the severity of visual impacts associated with the Updated Plan. Impacts A-1 through A-3 would remain significant and unmitigable.

Map Source: Placeworks

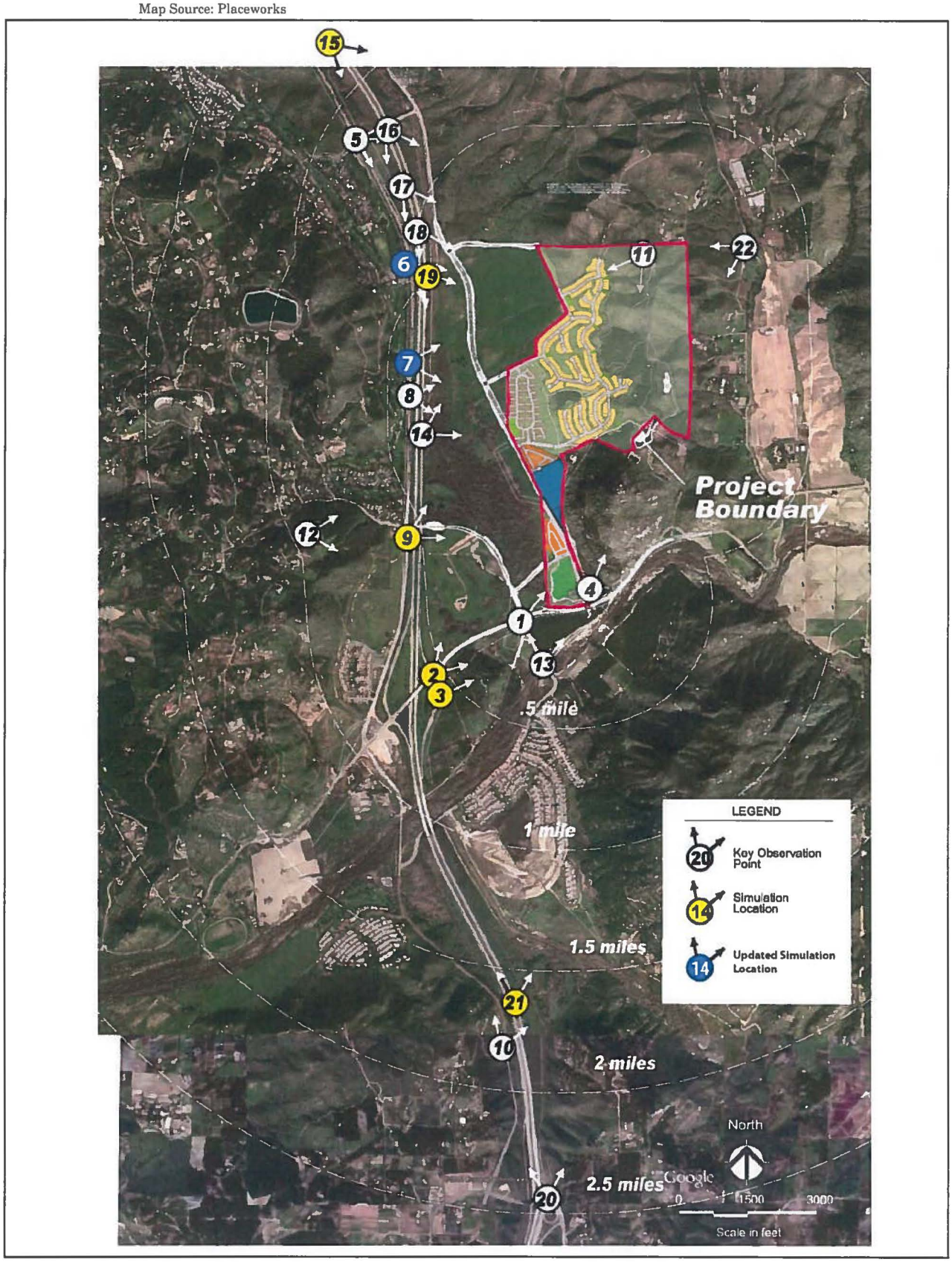


FIGURE 12
View Simulation Locations

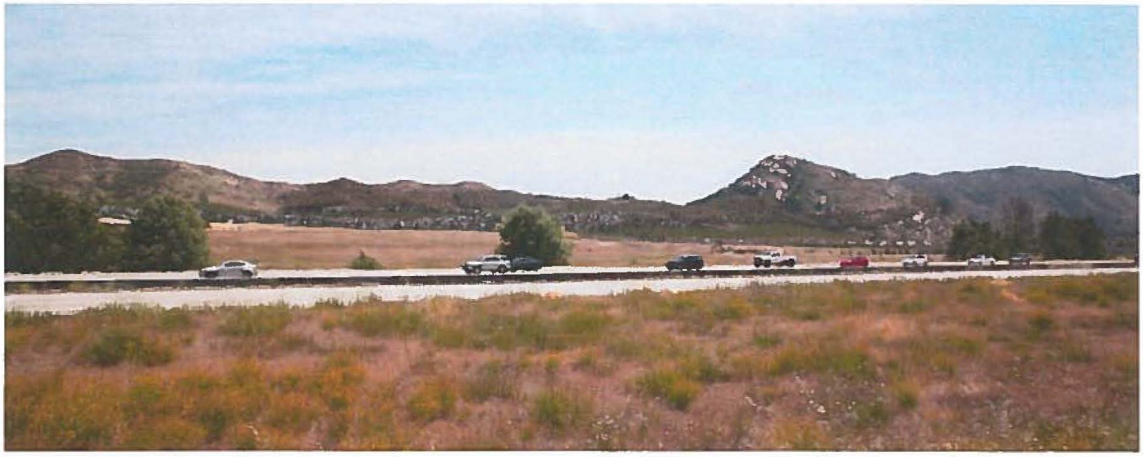
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Map Source: Placeworks



Current Site Conditions

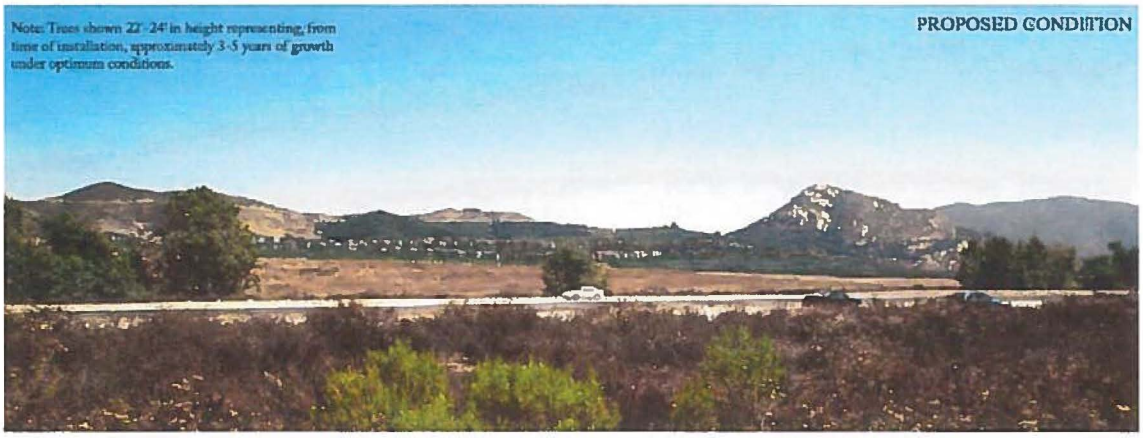


Updated View 2018-7-27
Note: The updated site plan is in conformance to the approved VTM view simulations, with no significantly distinguishable changes from the approved view simulations.

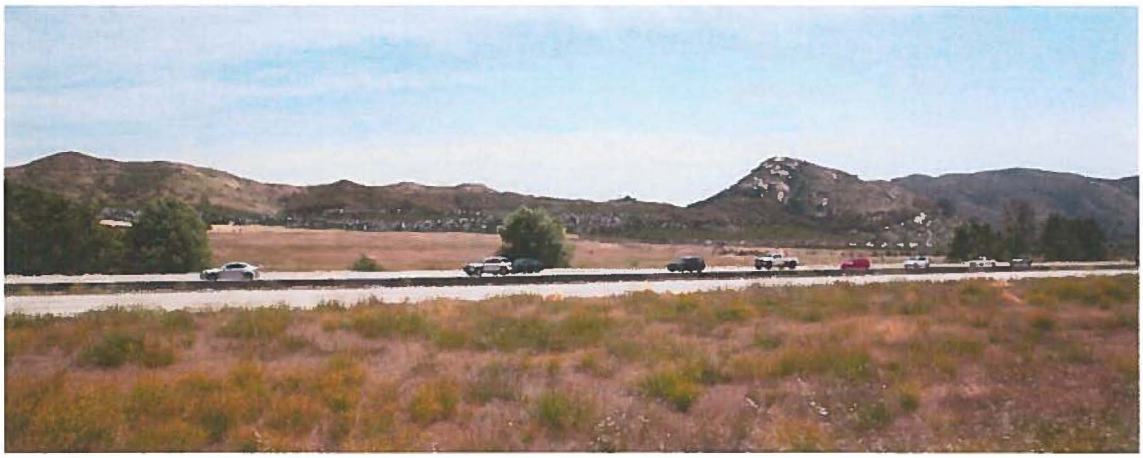
FIGURE 13a
Photo Simulation Comparison View 6

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Map Source: Placeworks



Approved Project View (Refer to approved EIR FIGURE 2.1-22)



Updated View 2018-7-27

Note: The updated site plan is in conformance to the approved VTM view simulations, with no significantly distinguishable changes from the approved view simulations.

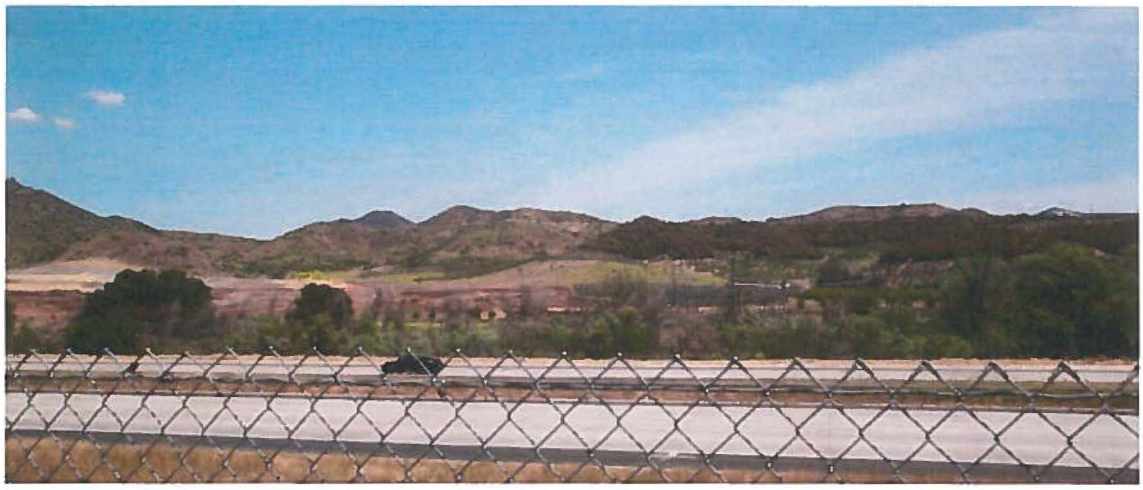
FIGURE 13b

Photo Simulation Comparison View 6

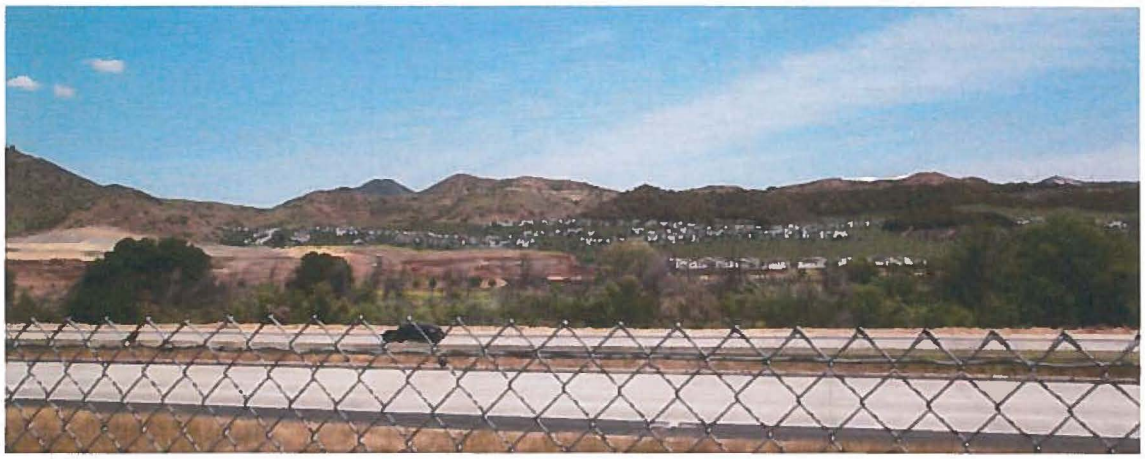
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Map Source: Placeworks



Current Site Conditions



Updated View 2018-7-27

Note: The updated site plan is in conformance to the approved VTM view simulations, with no significantly distinguishable changes from the approved view simulations.

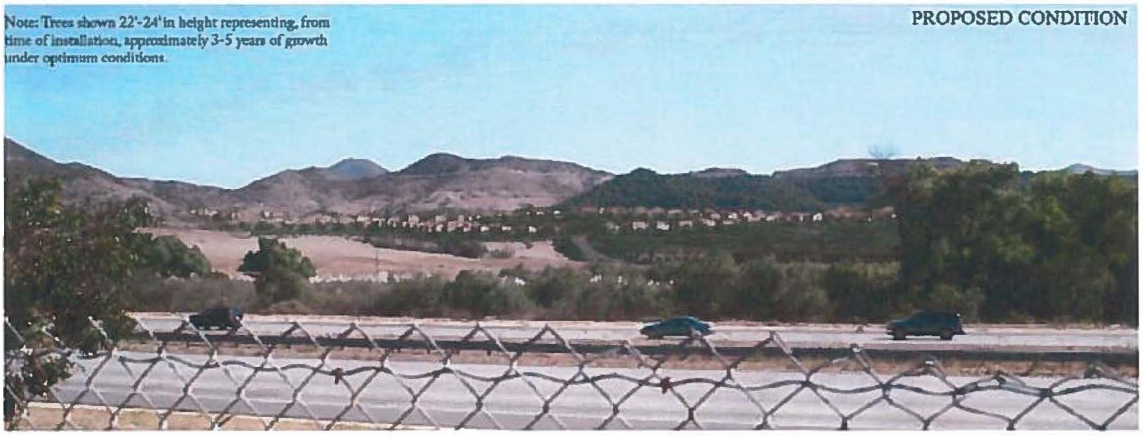
FIGURE 14a

Photo Simulation Comparison View 7

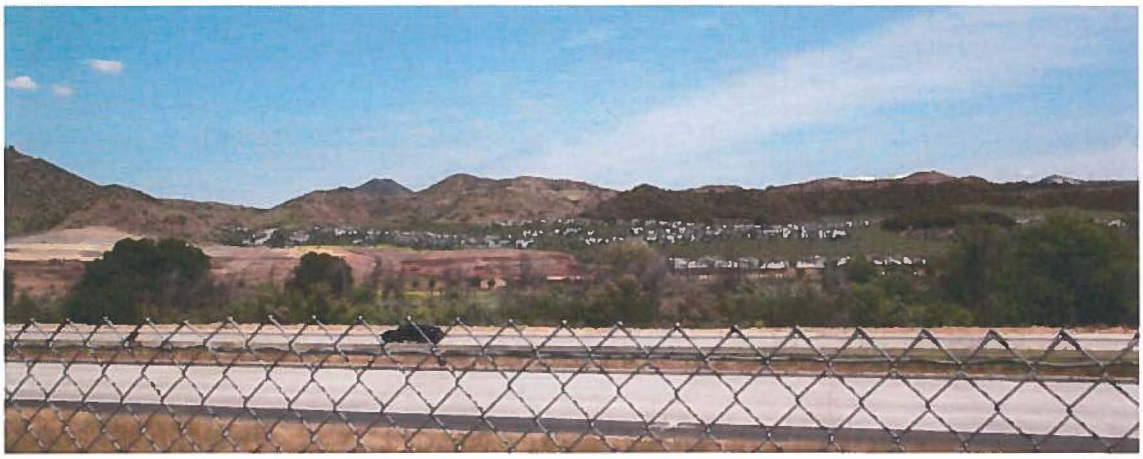
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Map Source: Placeworks



Approved Project View (Refer to approved EIR FIGURE 2.1-23)



Updated View 2018-7-27

Note: The updated site plan is in conformance to the approved VTM view simulations, with no significantly distinguishable changes from the approved view simulations.

FIGURE 14b

Photo Simulation Comparison View 7

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II. AGRICULTURE AND FORESTRY RESOURCES – Since the previous EIR was certified, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to agriculture or forestry resources including: conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use, conflicts with existing zoning for agricultural use or Williamson Act contract, or conversion of forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

YES	NO
☐	☒

Section 4.7.3 of the 2012 FEIR provides an analysis of agricultural and forestry resources associated with the approved project.

Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Issue 1): Although impacts to agricultural resources were identified as potentially significant during the Initial Study or Notice of Preparation (NOP) process, it was concluded after further analysis that no impacts to agricultural resources would result. Specifically, the Land Evaluation & Site Assessment (LESA) Model analysis prepared for the project resulted in a score that indicates that the project site does not represent a significant agricultural resource, and impacts were determined to be less than significant.

Conflict with existing zoning for agricultural use or a Williamson Act Contract (Issue 2): the 2012 FEIR determined that the proposed rezoning of the entire site to the S-88 Specific Planning Area Use Regulation would not represent a significant impact to agriculture because it would not result in a conflict with zoning for agricultural use, as agriculture is allowed in any zone within the County. In addition, there were no Williamson Act Contract lands within or adjacent to the project site. Impacts were determined to be less than significant.

Involve other changes in the existing environment (Issue 3): The 2012 FEIR determined that while the project could result in "edge effect" impacts to adjacent agriculture, these impacts are reduced through the implementation of project design measures, including the creation of a buffer composed of both agricultural and biological open space. Impacts were determined to be less than significant.

Conflict with an applicable plan, policy, or regulation (Issue 4): The 2012 FEIR determined that the project would not conflict with any applicable plans. Polices, or regulations pertaining to agricultural resources, including the Williamson Act, the San Diego County General Plan Policies, San Diego County General Plan, Regional Land Use Element, Conservation Element, Open Space Element, the San Diego County Agricultural Enterprises and Consumer Information Ordinance, and LAFCO Policy L-101.

Cumulative Impacts: The 2012 FEIR determined that, since the project site would not have a direct impact on significant agricultural resources, it would not have the potential to contribute to a cumulative impact.

Updated Plan

The present action would not result in any revisions to the previously analyzed project that would change the conclusions associated with agricultural resources. The construction of the access road would not result in any revisions to the previously analyzed project that would change the conclusions associated with agricultural resources, as the proposed area to be graded for construction of the storm drain access road does not contain existing agricultural operations or land previously used for agricultural purposes.

The relocation of the SDG&E power lines would not result in any revisions to the previously analyzed project that would change the conclusions associated with agricultural resources. Construction of the power lines would not change the agricultural open space dedications, as the agricultural open space would remain at 47.7 acres per the Agricultural Preserve Easement recorded on October 3, 2017. No portions of the area to be graded for the power lines would encroach upon the agricultural preserve. Therefore, there would be no overall increase or severity of agricultural impacts beyond that previously discussed in the Final EIR.

III. AIR QUALITY – Since the previous EIR was certified or previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to air quality including: conflicts with or obstruction of implementation of the San Diego Regional Air Quality Strategy (RAQS) or applicable portions of the State Implementation Plan (SIP); violation of any air quality standard or substantial contribution to an existing or projected air quality violation; a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard; exposure of sensitive receptors to substantial pollutant concentrations; or creation of objectionable odors affecting a substantial number of people?

YES	NO
☐	☒

Section 2.2 of the 2012 FEIR provides an analysis of air quality impacts associated with the approved project.

RAQS/SIP Impacts (Issue 1): The 2012 FEIR determined that the project would conflict with the RAQS for the San Diego Air Basin (SDAB), as the densities included in the project were not consistent with the adopted San Diego County General Plan or Fallbrook Community Plan, and the project was not considered in the development of the RAQS for the SDAB. Thus, impacts associated with conflicts with the RAQS and SIP were determined to be significant (AQ-1). The 2012 FEIR determined that there were no feasible mitigation measures to mitigate this impact, and impacts would be significant and unmitigable.

Air Quality Standards (Issue 2): The 2012 FEIR analyzed air quality impacts and concluded that operational impacts would occur from traffic and on-site source emissions (Impact AQ-3), requiring adoption of Mitigation Measure M-AQ-3. However, even with implementation of this mitigation measure, impacts were determined to remain significant and unmitigable. Additionally, temporary significant impacts would occur as a result of project construction; however, these significant impacts would be reduced to less than significant levels through project design features and mitigation measures.

As shown in the 2012 FEIR Table 2.2-7, the project's incorporation of standard construction measures would assure that maximum daily construction emissions of nitrogen oxide (NO_X), carbon monoxide (CO), particulate matter less than or equal to 2.5 microns ($PM_{2.5}$), particulate matter less than or equal to 10 microns (PM_{10}), and reactive organic gases (ROG) would be less than significant. The standard construction measures are listed in the 2012 FEIR Section 2.2.3, and Table 1-5. The implementation of these project design measures is a condition of project approval. With respect to construction related emissions of ROG (note that the terms volatile organic compounds (VOC) and ROG can be used interchangeably), project impacts were found to be significant requiring adoption of Mitigation Measure M-AQ-2. Implementation of mitigation measures, as conditions of project approval, would reduce significant impacts to less than significant. Overall, the 2012 FEIR determined that all identified construction-related impacts would be avoided through design measures or reduced to less than significant through implementation of mitigation measures.

Sensitive Receptors (Issue 3): The 2012 FEIR assessed small-scale, localized concentrations of CO for the project site. As shown in the 2012 FEIR Table 2.2-9, the estimated of one-hour CO concentrations at the intersections within the project area would range from 6.5 to 7.2 ppm and the eight-hour CO concentrations would range from 4.6 to 5.0 ppm. These estimated concentrations were below the state and national standards, and impacts were determined to be less than significant. In addition, the 2012 FEIR determined that impacts associated with toxic air emissions would be less than significant, as the project site lies outside of the land use avoidance guidelines established by California Air Resources Board (CARB).

In regard to Diesel Particulate Matter (DPM), the 2012 FEIR included a health risk evaluation in order to determine whether DPM emissions presented a health risk to sensitive receptors. The 2012 FEIR determined that a cancer risk of 7.7 in one million for children and 5.1 in one million for adults would result with implementation of the project, which is less than the applied threshold of 10 in one million. However, the 2012 FEIR concluded that should the construction fleet not meet the required CARB regulations regarding emissions from in-use heavy duty diesel equipment, impacts associated with exposure to TACs would be significant (AQ-4), requiring adoption of Mitigation Measure M-AQ-4. Implementation of mitigation measures, as conditions of project approval, would reduce significant impacts to less than significant.

Odors (Issue 4): The 2012 FEIR determined that impacts associated with odors would be less than significant, as odor control would be provided to reduce any potential impacts to the surrounding area associated with use of the WWTP located on-site. In addition, it was determined that the use of recycled water to irrigate the agricultural land within he project site would not result in significant impacts, as recycled water is commonly used throughout San Diego County and is not associated with odor impacts.

Cumulative Impacts: The 2012 FEIR determined that significant cumulative air quality impacts would result from implementation of the project. Significant cumulative air quality impacts were identified for conflicts with the RAQS/SIP (AQ-5), DPM emissions (AQ-6), on-site operation and area source emissions (AQ-7). The 2012 FEIR included Mitigation Measures M-AQ-5, M-AQ-6, and M-AQ-7. It was determined that even with adoption of M-AQ-5 and M-AQ-7, these cumulative impacts would remain significant and unavoidable, while adoption of M-AQ-6 would reduce this cumulative impact to a less than significant level. All other issue areas regarding cumulative air quality impacts were determined to be less than significant.

Updated Plan

Implementation of the Updated Plan would not result in new previously undisclosed impacts nor add to the identified significant unmitigable short-term construction impacts identified in the 2012 FEIR. The impact identified in the 2012 FEIR was due to the intensity of proposed grading activities and not related to the location of grading. The existing grading footprint and balanced grading would not change with the Updated Plan. However, the Updated Plan has identified an increase in overall grading quantities of 410, 200 cubic yards. The main reason for updated grading quantities is not due to a more intensive or lengthy grading operation; rather, it is due to more refined grading calculations that have accounted for anticipated bulking in addition to reconfiguration of on-site BMP basins.

The overall intensity of grading would be similar to what was previously analyzed. The original FEIR, Table 2.2-6 identifies the construction parameter assumptions used in the air quality analysis and identifies operations occurring over an approximately 13-year period with mass grading occurring over an approximate 3-year period. Despite the increased grading quantity estimate, the same construction assumptions used in the original analysis would apply. All construction that would occur as a result of implementing the Updated Plan would occur within the development footprint assessed in the 2012 FEIR with the exception of grading activities required for the construction of the storm drain access road. Grading associated with construction of the storm drain access road would result in an incremental increase in air emissions beyond that analyzed in the Final EIR; however, as detailed in Figure 3, the overall grading footprint would be reduced by approximately 10.2 acres; thus, even with the additional 0.2-acre area for the off-site storm drain access road, overall grading area and operations would be similar to what was originally evaluated. Additionally, grading within the storm drain access road area would comply with air quality project design and mitigation measures associated with the reduction of potentially significant air quality impacts. Construction completed in accordance with the Updated Plan even with the off-site grading for the storm drain access road, would be consistent with what was analyzed in the original project analysis. Refer to Figure 3 for detailed grading quantities.

The relocation of the SDG&E 69kV system would not result in new previously undisclosed impacts nor add to the identified significant unavoidable short-term construction impacts identified in the 2012 FEIR. The relocation of the system would be located within the development footprint of the project site. The power line relocation would not increase grading beyond the quantities previously analyzed and the limits of disturbance associated with the project footprint would not change.

Therefore, implementation of the Updated Plan would not result in new construction-related air quality impacts nor result in an overall increase or severity of air quality impacts associated with the relocated system beyond that previously discussed in the 2012 FEIR.

The proposed number of dwelling units (844) would be the same as what was originally proposed in the 2012 FEIR and would result in the same level of pollutant emissions from mobile and stationary sources. Implementation of the Updated Plan would not add to the previously identified significant unmitigated operational air quality impacts or to the significant (mitigated) temporary air quality impacts.

IV. BIOLOGICAL RESOURCES – Since the previous EIR was certified, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to biological resources including: adverse effects on any sensitive natural community (including riparian habitat) or species identified as a candidate, sensitive, or special status species in a local or regional plan, policy, or regulation, or by

the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service; adverse effects to federally protected wetlands as defined by Section 404 of the Clean Water Act; interference with the movement of any native resident or migratory fish or wildlife species or with wildlife corridors, or impeding the use of native wildlife nursery sites; and/or conflicts with the provisions of any adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional or state habitat conservation plan, policies or ordinances?

YES	NO
☐	☒

Section 3.1 of the 2012 FEIR provides an analysis of biological resource impacts associated with the approved project.

Special Status Plant Species (Issues 2 and 3): The 2012 FEIR analyzed biological impacts and concluded that no special status plant species were detected within the project site; as such, no direct or indirect impacts would result. Impacts would be less than significant.

Threatened or Endangered Wildlife Species (Issues 1, 4, 7 and 9): The 2012 FEIR found that development of the 389.5-acre project site would result in significant direct and indirect impacts to a number of special status species, including the arroyo toad (Impact BR-1), coastal California gnatcatcher (Impacts BR-2 and BR-3), least Bell's vireo (Impacts BR-4 and BR-5), and southwestern willow flycatcher (Impacts BR-6 and BR-7), requiring adoption of Mitigation Measures M-BR-1 (Grading and Construction Mitigation), M-BR-2 (Habitat Mitigation), M-BR-3a (Grading and Construction Mitigation), M-BR-3b (Breeding Season Avoidance), M-BR-4 (Habitat Mitigation), M-BR-5a (Grading and Construction Mitigation), M-BR-5b (Breeding Season Avoidance), M-BR-6 (Habitat Mitigation), M-BR-7a (Grading and Construction Mitigation), and M-BR-7b (Breeding Season Avoidance).

Special Status Wildlife Species Issues 2, 3, and 6): The 2012 FEIR analyzed biological impacts and concluded that development of the 389.5-acre project site would result in significant impacts to a number of special status wildlife species, including raptors (Impact BR-8), the western spadefoot toad (Impact BR-9), and vegetation communities including coastal sage scrub, southern mixed chaparral, non-native grasslands and pastureland, and southern arroyo willow riparian forest, willow/mule fat scrub and southern willow scrub (Impact BR-10), requiring adoption of Mitigation Measures M-BR-8 (Habitat Mitigation), M-BR-9 (Habitat Mitigation), and M-BR-10 (Habitat Mitigation). Implementation of the measures, as conditions of project approval, would reduce significant impacts to less than significant.

Nesting Birds (Issue 10): The 2012 FEIR analyzed biological impacts and concluded that development of the 389.5-acre project site would result in a significant impact to nesting birds (Impact BR-11), requiring adoption of Mitigation Measure M-BR-11 (Breeding Season Avoidance). Implementation of the measure, as conditions of project approval, would reduce significant impacts to less than significant.

General Indirect Impacts (Issue 7): The 2012 FEIR analyzed biological impacts and concluded that development of the 389.5-acre project site would result in a significant impact due to lighting near the edge of open space (Impact BR-12), requiring adoption of Mitigation Measures M-BR-12 (Lighting Code Compliance). In addition, the 2012 FEIR determined that development of the project site would result in a significant impact due to increased noise levels near breeding and nesting least

Bell's vireo (Impact BR-5), requiring adoption of Mitigation Measures M-BR-5a (Grading and Construction Mitigation) and M-BR-5b (Breeding Season Avoidance). Implementation of the measures, as conditions of project approval, would reduce significant impacts to less than significant.

Riparian Habitat and Sensitive Natural Communities (Issues 10-15): The 2012 FEIR analyzed biological impacts and concluded that development of the 389.5-acre project site would result in a significant impact to 14.5 acres of coastal sage scrub and disturbed coastal sage scrub (Impact BR-13), 2.2 acres of southern mixed chaparral (Impact BR-14), 0.3 acre of coast live oak woodland (Impact BR-15), 15.3 acres of non-native grassland (Impact BR-16), 30.2 acres of pastureland (Impact BR-17), 6.29 acres of wetland vegetation (Impact BR-18), requiring adoption of Mitigation Measures M-BR-13 (Habitat Mitigation), M-BR-14 (Habitat Mitigation), M-BR-15 (Habitat Mitigation), M-BR-16 (Habitat Mitigation), M-BR-17 (Habitat Mitigation) and M-BR-18 (Habitat Mitigation). Implementation of the measures, as conditions of project approval, would reduce significant impacts to less than significant. All other impacts associated with impacts to riparian habitat and sensitive natural communities were determined to be less than significant.

Jurisdictional Waters including Wetlands (Issues 11 through 15): The 2012 FEIR analyzed biological impacts and concluded that development of the 389.5-acre project site would result in a significant impact to jurisdictional areas. Permanent on-site impacts to jurisdictional waters totaled 0.93 acre, while permanent off-site impacts totaled 2.29 acres, for a total permanent impact of 3.22 acres to jurisdictional waters (Impact BR-19). Temporary off-site impacts to jurisdictional waters totaled 2.04 acres (Impact BR-20). These impacts required adoption of Mitigation Measures M-BR-19 (Habitat Mitigation) and M-BR-20 (Habitat Mitigation). Implementation of the measures, as conditions of project approval, would reduce significant impacts to less than significant.

Wildlife Movement Corridors (Issues 16 through 21): The 2012 FEIR determined that impacts to wildlife movement corridors would be less than significant, as the project would not prevent wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction, and was designed to avoid the three mapped wildlife movement corridors in the area.

Local Policies, Ordinances and Adopted Plans (Issues 22 through 33): The 2012 FEIR determined that the project would result in a less than significant impact associated with conflicts to the NCCP, the Resource Protection Ordinance, to other local ordinances, and to eagles. A significant impact was identified in regard to conflicts with the MSCP, as identified in impacts to arroyo toad (Impact BR-1), coastal California gnatcatcher (Impacts BR-2 and BR-3), least Bell's vireo (Impacts BR-4 and BR-5), and southwestern willow flycatcher (Impacts BR-6 and BR-7). A significant impact was identified for conflicts with the Migratory Bird Treaty Act, as identified by Impact BR-11, requiring adoption of Measures M-BR-1 (Grading and Construction Mitigation), M-BR-2 (Habitat Mitigation), M-BR-3a (Grading and Construction Mitigation), M-BR-3b (Breeding Season Avoidance), M-BR-4 (Habitat Mitigation), M-BR-5a (Grading and Construction Mitigation), M-BR-5b (Breeding Season Avoidance), M-BR-6 (Habitat Mitigation), and M-BR-7a (Grading and Construction Mitigation), and M-BR-7b (Breeding Season Avoidance). Implementation of the measures, as conditions of project approval, would reduce significant impacts to less than significant.

Cumulative Impacts: The 2012 FEIR concluded that cumulative impacts to special status species, riparian habitat and sensitive natural communities, and jurisdictional waters and wetlands would require mitigation on a project-by-project basis, and that the mitigation implemented under the 2012

FEIR would be sufficient to mitigate the project's minimal contribution to any cumulative impacts. The EIR concluded that cumulative impacts would be less than significant.

Updated Plan

As discussed above, the project would revise the development layout throughout the project area. With the exception of the off-site storm drain access road (discussed below), the grading plan for the Updated Plan would not change the proposed areas of disturbance. The Biological Open Space Easement and Agricultural Preserve Easement have already been dedicated and would not be changed as a result of implementing the Updated Plan. The Biological Open Space acreage, per the recorded easement, would total 122.3 acres. The Agricultural Preserve acreage, per the recorded easement, would total 47.7 acres.

The proposed limits of grading would be in conformance with the approved project with the exception of grading required for the off-site storm drain access road that is located outside of the project footprint identified in the 2012 FEIR. The construction of the storm drain access road could result in both direct and indirect biological impacts. However, in the process of obtaining Resource Agency permits, the proposed storm drain access road was known and was incorporated into the projects 404 permit and Section 7 Consultation obtained from the United States Army Corps of Engineers (ACOE) and USFWS. As impacts associated with the storm drain access road has been addressed in agency permits, this analysis focuses on consistency with the findings of the 2012 FEIR. A biological letter report was prepared by RECON, dated March 22, 2019. The report is included as Attachment D of this Addendum. The potential impacts to biological resources associated with the storm drain access road are shown in Figure 15. The following discussion is based on the findings in the letter report.

Direct Impacts

Construction of the storm drain access road would result in additional biological impacts outside the area previously analyzed in the Final EIR. Specifically, construction of the access road would result in a permanent impact to an additional 0.1 acre of coastal sage scrub, which is considered a Tier II sensitive habitat and could support coastal California gnatcatcher. As required in Mitigation Measure M-BR-13 of the Final EIR, the Meadowood project would dedicate 74.5 acres of coastal sage scrub for permanent conservation within an on-site biological open space area. Based on County mitigation ratios, implementation of this mitigation measure would preserve habitat above and beyond the required 29 acres of coastal sage scrub for impacts associated with the Meadowood development project. The excess 45.5 acres of coastal sage scrub preserved on-site would provide adequate mitigation for the additional 0.1 acre of permanent impact attributed to the off-site access road. Therefore, no new mitigation would be required.

An additional 0.1 acre of coastal sage scrub and 0.1 acre of disturbed area would be temporarily impacted during the construction of the storm drainpipe and slope. These temporarily impacted slopes would be mitigated by revegetating with native vegetation as detailed in the project's Revegetation Plan and associated revegetation landscape plan. This is consistent with Mitigation Measure M-BR-13 in the Final EIR that requires all temporary impacts to be mitigated through revegetation. Therefore, no new impacts would occur, and no new mitigation would be required.

Direct impacts could also occur to other sensitive species including Belding's orange-throated whiptail, southern rufous-crowned sparrow, southern mule deer, and least Bell's vireo as a result of the proposed construction. However, habitat that supports these species would not be directly

affected by construction activities. As required in Mitigation Measure M-BR-11 in the Final EIR, the Meadowood project would limit vegetation removal to outside the general bird breeding season (February 15 to September 15). This mitigation measure would be implemented for the construction of the storm drain access road. Therefore, no new impacts would occur, and no new mitigation would be required.

Indirect Impacts

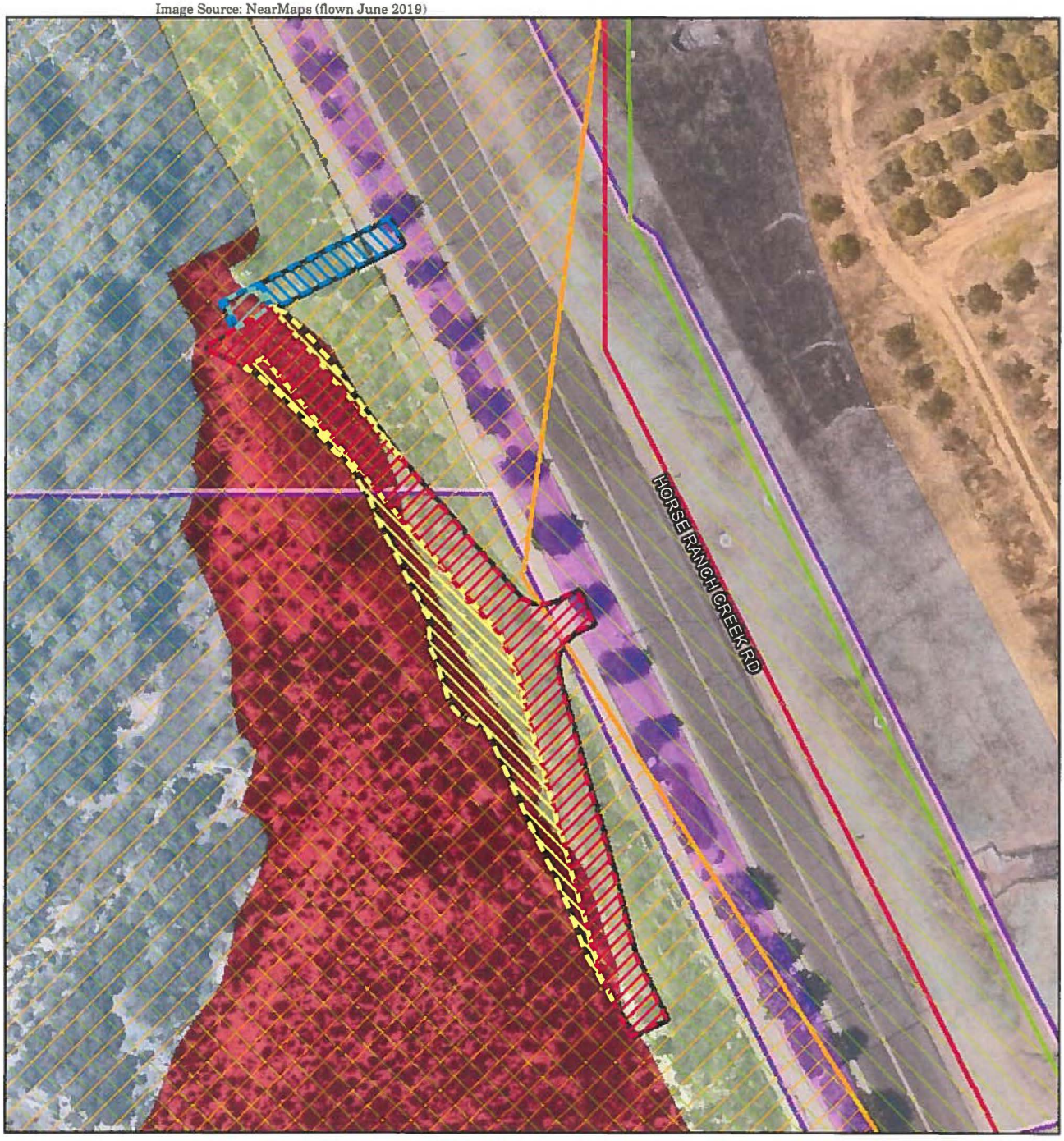
The construction of the storm drain access road could also result in indirect impacts to least Bell's vireo and southwestern willow flycatcher, due to the location of southern willow scrub habitat adjacent to the construction areas. Presence of this sensitive bird is to be assumed, as this species has been detected within the adjacent southern willow scrub during protocol surveys conducted in 2017. Increased noise associated with construction activity could result in disturbance to the species, especially during breeding and nesting seasons.

The Final EIR included Mitigation Measures M-BR-5b and M-BR-7b, which require that vegetation clearing, and grubbing shall not occur within 500 feet of riparian habitat during the breeding season from March 15 to September 15. In addition, during construction, no activity shall occur within 500 feet (152.4 meters) of active vireo nesting territories, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. Exceptions to this measure includes cases where surveys confirm that adjacent habitat is not occupied or where noise studies confirm that construction noise levels are below 60 A-weighted decibels [dB(A)] hourly equivalent sound level (L_{eq}) along the edge of adjacent habitat. If construction activities are not completed prior to the breeding season and noise levels exceed this threshold, noise barriers shall be erected to reduce noise impacts to occupied habitat to below 60 dB(A) hourly L_{eq} and/or the culpable activities will be suspended. Implementation of this mitigation measure would reduce impacts to least Bell's vireo and southwestern willow flycatcher to less than significant levels. This mitigation measure would be implemented for the construction of the storm drain access road. Therefore, no new impacts would occur related to the storm drain access road and no new mitigation would be required.

The relocation of the SDG&E 69kV system would not result in new previously undisclosed biological resources impacts identified in the 2012 FEIR. Although there have been minor changes to the project design as it relates to the alignment of the SDG&E 69kV system, the limits of disturbance associated with the project footprint would not change. Biology impacts associated with grading for the entire project were analyzed in the 2012 FEIR. The relocation of the power lines would not increase grading beyond the limits of disturbance previously analyzed. Grading activities would be required to comply with mitigation measures identified in the 2012 FEIR. No portions of the grading required to construct the power lines would encroach upon the 122.3 acres of biological open space dedicated in Biological Open Space Easement for the Meadowood project.

Other changes resulting from the Updated Plan include a reduction in impacts along the western edge of PA-1 with removal of residential development from PA-1 South. Brush management would no longer be required along the edge of PA-1 South, thereby reducing any potential off-site impacts in this area, which includes 0.51 acres of southern arroyo willow riparian forest. No additional or new brush management beyond that analyzed in the 2012 FEIR would be required. Therefore, there would be no overall increase or severity of impacts to biological resources beyond that previously discussed in the 2012 FEIR. No new mitigation would be required.

Image Source: NearMaps (flown June 2019)



0 Feet 60

Permanent Impact - Proposed Riprap Area
Permanent Impact - Access Road
Temporary Impact - Access Road Slope
Temporary Impact - Storm Drain
MSCP North County Draft
Outside Pre-Approved Mitigation Area (PAMA)
Pre-negotiated (Hardlined) Take Authorized Areas
Project Boundary
Off-site Area

USFWS Final Critical Habitat
Coastal California Gnatcatcher
Arroyo Toad
Updated Current Conditions
Coastal Sage Scrub
Southern Willow Scrub
Agriculture
Disturbed
Ornamental
Urban/Developed

RECON

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FIGURE 15
Off-Site Flood Control Access Road Biological Resources Impacts

V. CULTURAL RESOURCES – Since the previous EIR was certified, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to cultural resources including: causing a change in the significance of a historical or archaeological resource as defined in State CEQA Guidelines Section 15064.5; destroying a unique paleontological resource or site or unique geologic feature; and/or disturbing any human remains, including those interred outside of formal cemeteries?

YES	NO
☐	☒

Section 3.3 of the 2012 FEIR provides an analysis of cultural resource impacts associated with the approved project.

Historic Resources (Issue 1): The 2012 FEIR analyzed impacts to historic resources, specifically the Rancho Monserrate Adobe, and determined that the Monserrate Adobe could be a significant historical resource. The 2012 FEIR concluded that implementation of the project could impact subsurface deposits associated with the adobe, resulting in a significant impact (Impact CR-1), requiring adoption of Mitigation Measure M-CR-1 (archaeological monitoring). Implementation of this mitigation measure reduced this impact to less than significant.

Archaeological Resources and Human Remains (Issues 2, 3, and 4): The 2012 FEIR analyzed impacts to archaeological resources and concluded that development of the project site could result in potentially significant impacts as follows: the loss of a known archaeological site (CA-SDI-682) and/or the loss of previously unrecorded archaeological resources or human remains (Impacts CR-2, CR-3, CR-4, and CR-5). The 2012 FEIR required adoption of Mitigation Measures M-CR-1 through M-CR-4 (capping, temporary fencing, and archaeological monitoring). Implementation of the measures, as conditions of project approval, would reduce significant impacts to less than significant.

Cumulative Impacts: The 2012 FEIR determined that cumulative impacts to cultural resources would be less than significant. The 2012 FEIR concluded that because the project and the impacts associated with the cumulative impact area were examined for their significance, there would be no cumulative loss of information associated with their development. Additionally, if new resources are discovered during development within the cumulative impact area, site-specific measures necessary to evaluate and collect relevant information would occur. Cumulative impacts were therefore determined to be less than significant.

Updated Plan

The Updated Plan would substantially reduce the potential loss of a known archaeological site (CA-SDI-682) by preserving in place and capping the archaeological site with Planning Area 1. The Updated Plan moves the proposed public park site to Planning Area 1 in order to preserve resources in place. This area would include 7.6 acres of passive open space and slopes that surround the 8.8-gross acre park site (as shown on Figure 1). As a result of this relocation, no housing development would occur within the southern portion of Planning Area 1. Very limited excavation would be allowed to occur within the southern portion of Planning Area 1. The entirety of the park site and open space area would be capped with very limited disturbance to the native soils. As such, impacts to known and unknown archaeological sites would be less than significant. All grading activities occurring as a result of implementing the Updated Plan would be required to comply with mitigation measures

identified in the 2012 FEIR, as well as those identified in the Memorandum of Agreement (MOA) and Monitoring and Treatment Plan (MTP) completed for the project as conditions of the project's 404 permit.

Because the project is an undertaking as defined in Section 106 of the National Historic Preservation Act, Section 106 as implemented (36 Code of Federal Regulations Part 800) requires federal agencies to identify cultural resources within the area of potential effect, to assess impact to resources found eligible for the National Register of Historic Places, and to mitigate adverse effects to eligible resources. The MOA and MTP outline the avoidance and minimization measures to mitigate adverse effects to the cultural resources within the project area.

The relocation of the SDG&E 69kV system would not result in new previously undisclosed cultural resources impacts identified in the 2012 FEIR. Although there have been minor changes to the project design as it relates to the alignment of the SDG&E 69kV system, these changes are located within the original project limits of disturbance. Impacts to cultural resources associated with grading for the entire project were analyzed in the 2012 FEIR. The 69kV relocation would not increase grading beyond the limits of disturbance previously analyzed.

All grading activities, including minor grading for installation of the storm drain access road, occurring as a result of implementing the Updated Plan would be required to comply with mitigation measures identified in the 2012 FEIR, as well as those identified in the MOA and MTP completed for the project as conditions of the project's 404 permit. Therefore, there would be no overall increase or severity of impacts to cultural resources beyond that previously discussed in the 2012 FEIR. No new mitigation would be required.

VI. GEOLOGY AND SOILS – Since the previous EIR was certified, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in one or more effects from geology and soils including: exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, seismic-related ground failure, including liquefaction, strong seismic ground shaking, or landslides; result in substantial soil erosion or the loss of topsoil; produce unstable geological conditions that will result in adverse impacts resulting from landslides, lateral spreading, subsidence, liquefaction or collapse; being located on expansive soil creating substantial risks to life or property; and/or having soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

YES	NO
☐	☒

Section 3.2 of the 2012 FEIR provides an analysis of geology and soil impacts associated with the approved project

Faults and Liquefaction (Issue 1): The 2012 FEIR analyzed impacts associated with faults and liquefaction and concluded that since there are no known active faults on the project site, and that development of the project would be required to conform to the UBC/CBC and the County Zoning Ordinance, as well as the recommendations provided for in the geotechnical study prepared for the project, impacts associated with faults would be less than significant. In addition, the 2012 FEIR determined that impacts associated with liquefaction would be significant, as there are areas within

the project site that could be subject to liquefaction in the southwestern and western areas of the project site (Impact GE-1), thereby requiring adoption of mitigation measure M-GE-1, as conditions of approval, which would reduce this significant impact to less than significant.

Rockfall (Issue 2): The 2012 FEIR analyzed impacts associated with rockfall hazards and concluded that potential exists on the project site for rockfall from the west-facing slope of Rosemary's Mountain due to seismic or erosional events (Impact GE-2), resulting in a significant impact. The 2012 FEIR required adoption of Mitigation Measure M-GE-2, as conditions of approval, which would reduce this significant impact to less than significant. Mitigation Measure M-GE-2 required boulders with a high potential for rock fall to be removed or bolted to slopes and other boulders would be tested to ensure they do not pose rockfall hazards, as follows:

M-GE-2 Mitigation of rockfall potential shall consist of the following:

- The boulders identified as having a high potential of rockfall in the Response to County of San Diego Review Comments for Rockfall prepared by Geocon Incorporated dated March 31, 2011, shall be broken and removed from the slope or alternatively rock bolted to the slope as part of the grading of the site.
- Boulders identified as having a less than significant rockfall potential shall be tested by applying pressure with an excavator. If the boulders move, they shall be mitigated using the same techniques as described for boulders with high potential for rockfall. Boulders identified as having a less than significant rockfall potential shall be monitored during grading after any heavy rains if they should occur. If any undermining on the downhill side of any of the boulders has occurred, removal and/or breaking of the boulder(s) as recommended shall be performed to mitigate the rockfall hazard.
- A letter of certification shall be provided by a California Registered Professional Engineer or Certified Engineering Geologist to the [PDS, PPD], which states that the identified rockfall hazards at the site have been mitigated to a level of less than significant and any proposed buildings are safe for human occupancy.
- The above certification letter shall be provided prior to approval of any building plans and issuance of any building permit. The [PDS, PPD] shall review the rockfall hazard certification report for compliance with this condition.

Erodibility (Issue 3): The 2012 FEIR analyzed impacts associated with erodibility and concluded that since the project included erosion control measures and a landscaping plan that complied with current San Diego County and Fallbrook community rules and regulations, impacts associated with erosion would be less than significant.

Expansive Soils (Issue 4): The 2012 FEIR analyzed impacts associated with expansive soils and concluded that since the project would implement specific design measures to reduce potential for hazards associated with both cut and fill slopes and seepage and perched water, impacts associated with expansive soils would be less than significant.

Updated Plan

As discussed above, the project would revise the development layout throughout the project area. Although there have been minor changes to the project design, the limits of disturbance associated

with the project footprint would be the same (slightly reduced) with the exception of grading required for the off-site storm drain access road, which would be required to comply with mitigation measures identified in the 2012 FEIR. All grading activities associated with the Updated Plan would be required to comply with mitigation measures identified in the 2012 FEIR. The method of mitigating for rockfall hazards along the slope of Rosemary's Mountain has been revised since the 2012 FEIR. In order to address potential rockfall hazards associated with Rosemary's Mountain, a rockfall barrier would be constructed at the base of the mountain, along the east side of Horse Ranch Creek Road, north and south of Pankey Place (Street R) in PA-1 and along the southeastern edge of PA-2, south of the detention basin as shown in Attachment B-2. The rockfall barrier would extend to the height of six feet above the ground surface with one foot of wall embedded into the ground. The wall would be designed pursuant to the Alternative Recommendations for Rockfall Potential report (see Attachment B-1) and the Alternative Location of Rockfall Protection Wall (see Attachment B-2) both prepared by Geocon, Inc. With implementation of these alternative recommendations, there would be no overall increase or severity of impacts related to geology and soils beyond that previously discussed in the 2012 FEIR. No new mitigation would be required.

The relocation of the SDG&E 69kV system would not result in new previously undisclosed impacts related to geology and soils identified in the 2012 FEIR. The SDG&E 69kV system would be located entirely within the limits of disturbance associated with the project footprint and would not change. Grading activities would be required to comply with mitigation measures identified in the 2012 FEIR. Therefore, there would be no overall increase or severity of impacts to geology and soils beyond that previously discussed in the 2012 FEIR. No new mitigation would be required.

VII. GREENHOUSE GAS EMISSIONS – Since the previous EIR was certified, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in one or more effects related to environmental effects associated with greenhouse gas emissions or compliance with applicable plans, policies or regulations adopted for the purpose of reducing greenhouse gas emissions?

YES	NO
☐	☒

Appendix D-2 and Section 2.2 of the 2012 FEIR provides an analysis of greenhouse gas (GHG) emission impacts associated with the approved project.

The 2012 FEIR analyzed impacts related to GHG emissions. Emissions were analyzed based on the project's consistency with Assembly Bill 32 (AB-32), which requires the state to reduce GHG emissions to 1990 levels by 2020. GHG emissions were calculated for business as usual (BAU) conditions and for conditions with implementation of GHG emission reduction measures proposed by the project. As detailed in the Global Climate Change Report included as Appendix D-2 of the 2012 FEIR, the project's Business as Usual (BAU) GHG emissions were estimated at 24,842 metric tons of carbon dioxide equivalents (CO_2E) per year. Project emissions after consideration of project design features and state requirements (e.g., building code compliance) would result in 16,526 metric tons (MT) of carbon dioxide equivalents (CO_2E) per year, which would be 34 percent reduction from the BAU condition. Because the project would achieve greater than a 33 percent reduction from the BAU condition, the project was found to be consistent with and assist in achieving the County's GHG reduction goals. The 2012 FEIR concluded that climate change impacts would be less than significant.

Updated Plan

The Updated Plan would result in the same number of dwelling units within the project site as anticipated in the EIR, 844 units. As such, greenhouse gas emissions from construction, vehicle trip generation, and solid waste disposal would be the same as discussed in the previous EIR. Regarding energy and water use, both project and regulatory changes have occurred since the original EIR was adopted. Project changes include the removal of the on-site WWTP and recycled water pipeline that was to be used for landscape irrigation purposes. The Updated Plan would require irrigation with potable water. Regarding the elimination of the WWTP and the removal of recycled water pipelines, the project would result in project-related (on-site) energy savings associated with the removal of the WWTP facility; however, the additional use of potable water for landscape irrigation with the Updated Plan could increase water use and the associated imbedded energy associated with water delivery. In order to determine if this change could increase impacts related to GHG emissions, the GHG analysis prepared for the 2012 EIR was reviewed to identify the assumptions used in the analysis related to water use.

As detailed in the March 11, 2009 Meadowood Global Climate Change Analysis prepared by RECON Environmental, project water use was multiplied by GHG emission factors published by the U.S. Environmental Protection Agency and U.S. Department of Energy (page 18). GHG emissions associated with water use are primarily associated with the energy requirement to transport water. As detailed on page 26 of the report, "given the embodied energy associated with the conveyance and treatment of water, whether or not it is reclaimed or part of an offset program, the GHG emissions estimates of the Proposed Project in Section 5.3 only account for a 25 percent reduction in the Proposed Project's water demand compared to BAU." Specifically, the water conservation goal in the GHG report was to achieve 25 percent better than the current 2007 plumbing code. Current code requirements would achieve and exceed this standard. Application of the current landscape ordinance alone is estimated to achieve a 22 percent reduction in irrigation water demand compared to regulations in effect in 2012. Additionally, CalGreen requires that indoor water use be reduced by 20 percent compared to the previous requirements and this would be implemented as a project design feature. Other regulatory changes will result in a reduction in GHG emissions compared to the previous project. Specifically, construction of homes would occur under Title 24 energy code standards which include new energy efficiency requirements including updates to the thermal envelope standards. Additionally, beginning in 2020, all new low-rise residential buildings must have solar panels or share in a solar photovoltaic system built for a set of homes. These requirements would apply to the project as construction would not begin until after January 1, 2020.

In addition to the regulatory changes that would further reduce GHG emissions of the project compared to what was previously analyzed, the Updated Plan would still apply all of the project design features to reduce GHG emissions related to water conservation with the exception of use of reclaimed water (see Section 5.1 of the Global Climate Change Technical Report). Specific design features included installation of low water use appliances in all residential units and non-residential buildings, participation in the Building Industry Association's California Green Builder Program; use of irrigation controllers such as irrigation timers and multi-programmable irrigation clocks in all common landscaped areas; use of a high-efficiency drip irrigation system to irrigate common areas and retained agricultural groves; and providing information about water conservation in each residence. Educational materials would be provided by the applicant and/or HOA. All of these measures would continue to be applicable to the Updated Plan. See also Section XVIII. Utilities, for additional detail on the project's water conservation features.

The relocation of the SDG&E 69kV system would not result in new previously undisclosed GHG emission impacts identified in the 2012 FEIR. Although there have been minor changes to the project design as it relates to the alignment of the SDG&E 69kV system, the construction of the power lines would not result in a substantial change in the quantity of grading. The Updated Plan has identified an increase in overall grading quantities of 410, 200 cubic yards. The main reason for updated grading quantities is not due to a more intensive or lengthy grading operation; rather, it is due to more refined grading calculations that has accounted for anticipated bulking that will occur during the grading operation and redesign of the on-site BMP basins. For these reasons, the updated volumes would not change intensity of construction activities and associated GHG construction emissions would not change. Construction activities under the Updated Plan would result in similar operations and similar construction related GHG emissions. There would be no overall increase or severity of greenhouse gas emissions beyond that previously discussed in the 2012 FEIR.

The grading associated with construction of the storm drain access road would result in an incremental increase in GHG emissions beyond that analyzed in the Final EIR; however, this additional grading area would not change the intensity or duration of the grading operation and the overall grading footprint would be less than what was originally evaluated.

Thus, the Updated Plan would not result in an increase in GHG emissions compared to the approved project. Therefore, there would be no change in the severity of climate change impacts beyond that previously discussed in the 2012 FEIR. No new mitigation would be required.

VIII. HAZARDS AND HAZARDOUS MATERIALS – Since the previous EIR was certified, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in one or more effects from hazards and hazardous materials including: creation of a significant hazard to the public or the environment through the routine transport, storage, use, or disposal of hazardous materials or wastes; creation of a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; production of hazardous emissions or handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; location on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 creating a hazard to the public or the environment; location within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport; within the vicinity of a private airstrip resulting in a safety hazard for people residing or working in the project area; impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and/or exposure of people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

YES	NO
☐	☒

Section 3.5 of the 2012 FEIR provides an analysis of hazards and hazardous material impacts associated with the approved project.

Dam Inundation (Issue 1): The 2012 FEIR determined that the proposed school site would be located outside of any dam inundation zone. Impacts were determined to be less than significant.

Emergency Air Support (Issue 2): The 2012 FEIR determined that since no structure would be 100 feet or greater in height, there would be no interference with emergency response missions utilizing low flying aircraft. Impacts were determined to be less than significant.

Hazardous Substance Use (Impact 3): The 2012 FEIR determined that since the project would not include the handling of hazardous substances as part of a business subject to hazardous material regulations, and that the proposed land uses would not result in the transport, emission, or disposal of hazardous materials, generate hazardous waste, or store hazardous waste, and would comply with the California Health and Safety Code, impacts would be less than significant.

Hazardous Substances within One-Quarter Mile of a School/Day Care Facility (Issue 4): The 2012 FEIR determined that the project would not include any potential for facilities that handle regulated substances, resulting in a less than significant impact. In addition, the EIR concluded that while the project could include a school site, it would be located farther than ¼ mile away from any potential future commercial uses associated with the Campus Park development and from the on-site WWTP. Impacts were determined to be less than significant.

Hazardous Materials Site/Site Subject to Release of Hazardous Substances (Issue 5): Potentially significant impacts associated with hazards were identified in the 2012 FEIR as a result of two irrigation ponds and smudge pots located on-site, as well as potential release of asbestos from proposed demolition of existing buildings (Impact HZ-1, HZ-2, and HZ-3). The 2012 FEIR required adoption of Mitigation Measures M-HZ-1 through M-HZ-3. Implementation of the measures, as conditions of project approval, would reduce significant impacts to less than significant.

Hazardous Site Location (Issues 6 and 7): The 2012 FEIR determined that since the project site is not located within 1,000 feet of a landfill or within 250 feet of a burn site, impacts would be less than significant.

Fire Hazard (Issues 8 and 9): The 2012 FEIR determined that with implementation of a Fire Protection Plan, along with project design features related to fuel modification zones, the use of ignition resistant building materials, road design requirements, construction of fire hydrants, and provision of fire access would ensure impacts associated with fire hazards would be less than significant.

Emergency Response (Issue 10): The 2012 FEIR determined that the furthest dwelling unit from the nearest fire station could be reached within five minutes, which was determined to comply with the General Plan fire response time. Thus, the 2012 FEIR concluded that the project would meet emergency response objectives and impacts associated with emergency response time would be less than significant.

Vectors (Issues 11 through 13): The 2012 FEIR determined that since the storm water system within the project site would be designed to ensure that existing vectors are excluded from storm water facilities and that habitat for vector breeding would be minimized, along with appropriate pond design and application of larvicides within the WWTP wet weather ponds would ensure impacts associated with vectors would be less than significant.

Cumulative Impacts: The 2012 FEIR determined that there would be no cumulative impacts associated with hazards and hazardous materials as a result on implementing the project.

Updated Plan

Similar to the proposed land use plan assessed in the 2012 FEIR, site preparation, grading, and construction activities under the Updated Plan would result in the same significant impacts identified in the 2012 FEIR regarding hazards and hazardous materials. The relocation of the powerlines would not affect the areas where potentially hazardous impacts were identified. Additionally, grading for the off-site storm drain access road would not occur in areas where potential hazards were identified. Mitigation Measures M-HZ-1 through M-HZ-3 as identified in the 2012 FEIR would be implemented and would reduce impacts to less than significant. Therefore, there would be no overall increase or severity of hazardous materials impacts beyond that previously discussed in the 2012 FEIR. No new mitigation would be required.

IX. HYDROLOGY AND WATER QUALITY – Since the previous EIR was certified, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to hydrology and water quality including: violation of any waste discharge requirements; an increase in any listed pollutant to an impaired water body listed under section 303(d) of the Clean Water Act ; cause or contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses; substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level; substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion, siltation or flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems; provide substantial additional sources of polluted runoff; place housing or other structures which would impede or redirect flood flows within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, including County Floodplain Maps; expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; and/or inundation by seiche, tsunami, or mudflow?

YES	NO
☐	☒

Section 4.2 of the 2012 FEIR provides an analysis of impacts related to hydrology and water quality associated with the approved project.

Local Surface and Ground Water Quality (Issue 1, 2 and 3): Although hydrology and water quality were identified as potentially significant impacts during the Initial Study or NOP process, it was concluded after further analysis that no impacts would result. Specifically, the Storm Water Management Plan and Drainage and Hydromodification Study (Appendices L-1 and L-3 of the 2012 FEIR) prepared in accordance with County regulations concluded that the project would not significantly alter overall drainage patterns associated with the surrounding area. With respect to construction activities, the project would include best management practices (BMPs) that would be put in place as part of the project design to protect water quality. Specific construction BMPs are identified in 2012 FEIR Section 4.2.4.

Flooding (Issue 4): The 2012 FEIR assessed impacts associated with flooding, concluding that the project would not result in significant impacts. The 2012 FEIR determined that portions of PA1 and Street R were located within the Horse Ranch Creek floodplain, but that improvements would be designed along Street R so that flow would not be impeded and would be conveyed downstream,

thereby not resulting in an adverse impact to the floodplain. The 2012 FEIR determined that with the implementation of the improvements associated with Street R and the grading of PA1, impacts associated with flooding would be less than significant.

Runoff and Drainage (Issues 5 and 6): The 2012 FEIR analyzed impacts associated with runoff and drainage and concluded that the project would not increase runoff velocities resulting in erosion or siltation on or off-site. Post-project runoff would be detained to pre-project levels with the inclusion of detention basins and hydromodification management incorporated into these detention basins. Impacts were determined to be less than significant.

Regarding storm drain capacities, the project would include design measures, including appropriate erosion control measures at discharge points and construction of storm drain facilities that would result in placement of outfalls consistent with pre-project discharge locations. Impacts associated with exceeding the existing of planned storm water facilities was determined to be less than significant.

Groundwater (Issue 7): The 2012 FEIR analyzed impacts associated with groundwater levels and concluded that the proposed use of 140.2 acre-feet of groundwater per year would result in a reduction of approximately 77 percent of groundwater use for the project area when compared to the existing condition. Impacts were determined to be less than significant.

Cumulative Impacts: The 2012 FEIR determined that since the project would incorporate on-site detention facilities and BMPs to managing flood control, hydro modification, and water quality, the project would have a less than significant impact to local drainage patterns, runoff volumes and velocities. In addition, the 2012 FEIR determined that cumulative impacts would be less than significant in regard to runoff and drainage, as all identified project-level water quality impacts would be reduced to below a level of significance through site and project specific design features and conformance with existing regulatory requirements. All applicable past, present and future developments within the watershed are subject to water quality standards identified in the noted National Pollutant Discharge Elimination System Permit, with those requirements implemented through the County regulations. Additionally, since the project would result in a substantial overall net decrease in the amount of groundwater pumped from the project site, cumulative impacts to groundwater resources would be less than significant.

Updated Plan

The Updated Plan would not result in any revisions to the previously analyzed project that would change the conclusions associated with hydrology and water quality. The project grading plans will be accompanied by site-specific hydrology and water quality analysis that takes into account the proposed project design and would be required to demonstrate consistency with all current stormwater regulations, which have become more stringent than the regulations in effect in 2012. The project would be required to implement BMPs identified in the 2012 FEIR including bio-retention basins throughout the project site. The location of bio-retention basins would be reconfigured and constructed in various locations throughout the project site to accommodate the revised design in conformance with County stormwater standards.

The relocation of the SDG&E 69kV powerlines would not result in any revisions to the previously analyzed project that would change the conclusions associated with hydrology and water quality. During grading activities for the relocation of the power lines, implementation of the BMPs identified in the 2012 FEIR would be required. Construction of the storm drain access road would include

additional grading beyond that addressed in the Final EIR; however, construction of the storm drain access road would include the BMPs identified in Final EIR Section 4.2.4 that would reduce potential construction-related impacts associated with water quality. Therefore, there would be no overall increase or severity of impacts to hydrology and water quality beyond that previously discussed in the 2012 FEIR. No new mitigation would be required.

X. LAND USE AND PLANNING – Since the previous EIR was certified, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to land use and planning including: physically dividing an established community; and/or conflicts with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect?

YES	NO
☐	☒

Section 4.1 of the 2012 FEIR provides an analysis of land use and planning impacts associated with the approved project.

Inconsistencies with Land Use Plans, Policies and Regulations (Issue 1): The 2012 FEIR analyzed impacts associated with conflicts with land use plans and concluded that impacts associated with inconsistencies with the County General Plan, County Zoning Ordinance, Fallbrook Community Plan, the I-15 Corridor Subregional Plan, the I-15/SR-76 Master Specific Plan, the County Subdivision Ordinance, the Resource Protection Ordinance, and the Natural Community Conservation Plan would be less than significant. In addition, the County General Plan was updated and approved on August 3, 2011. The project was approved on January 11, 2012, which was after the General Plan adoption. The project was "pipelined," based on the August 6, 2003, Board of Supervisors Pipeline Policy. Therefore, the project may be processed as approved within the framework of the pre-2011 General Plan.

Community Division (Issue 2): The 2012 FEIR determined that because there is not an established community within the project area that would be subject to division, and no impact would occur.

Updated Plan

The Updated Plan would not revise the proposed land use designations included within the Specific Plan. Rather, the Updated Plan would relocate certain uses within the site. As proposed in the Updated Plan, Planning Area 3 would convert from Neighborhood Park to Multi-family residential, and the size of the planning area would decrease by 4.3 acres[1] In addition, the multi-family portion of Planning Area 1 would be reduced from 26.1 acres to 9.2 acres in order to accommodate an 8.8-gross acre park area and 7.6- acres of passive open space and to preserve cultural resources in place. The Updated Plan would result in of the same number of dwelling units within the project site, 844 total units and all design changes are consistent with the allowable land uses in the Specific Plan. A minor deviation has been processed that documents all changes related to parking, setbacks, private open space, group usable open space, and children's play areas. The minor deviation shows that all changes meet the 10 percent change criteria and are in substantial conformance to the Specific Plan. The relocation of the overhead powerlines and grading for the

[1]The approved project identified an 8.43-acre park to be located within Planning Area 3; the approved project would have constructed a 5.4-acre park in this Planning Area, due to topographic constraints, and the applicant would have been required to pay in lieu fees in order to comply with the 8.43-acre requirement.

storm drain access road would not require the revision of the previously approved land use designations or result in changes to the previously analyzed project that would change the conclusions associated with land use and planning. Thus, the Updated Plan would not result in inconsistencies with land use plans, polices, or regulations, and would not result in a division of an established community. Therefore, there would be no change in the severity of land use and planning impacts beyond that previously discussed in the 2012 FEIR. No new mitigation would be required.

XI. MINERAL RESOURCES – Since the previous EIR was certified, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to mineral resources including: the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; and/or loss of locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

YES	NO
☐	☒

Section 4.5 of the 2012 FEIR provides an analysis of mineral resource impacts associated with the approved project.

On-site Impacts from Proposed On-Site Land Uses (Issue 1): The 2012 FEIR determined that the entire 39 acres of on-site floodplain deposits are located on or within 1,300 feet of existing residential properties on the project site and as a result are already lost to future mining. Therefore, implementation of the project would not result in any additional impacts to these resources: on-site Impacts would be less than significant.

On-site Impacts from Off-site Land Uses (Issue 2): The 2012 FEIR determined that since all on-site mineral resources were determined to be incompatible or lost to future mining due to the presence of existing residences on the project site, impacts would be less than significant.

Off-site MRZ-2 Impacts from Proposed On-site Land Uses (Issue 3): The 2012 FEIR determined that the project would impact approximately 13 acres of off-site MRZ-2 designated land on Rosemary's Mountain. However, the proposed quarry on Rosemary's Mountain would conduct all mining activities on the east facing slope of the mountain, which shields it from the project site. Therefore, the 2012 FEIR determined impacts to the permitted mining activities on Rosemary's Mountain would be less than significant.

Marketability and Minimum Dollar Value (Issue 4): The 2012 FEIR determined that the entire 39 acres of the project site mapped as Qa and off-site MRZ-2 designated land is located on or within 1,300 feet of existing residential properties on the project site. Therefore, it was considered incompatible or lost to future mining. Implementation of the project would not result in any additional impacts to these resources. As such, there would be no economic impact to mineral resources; impacts would be less than significant.

Updated Plan

Although the Updated Plan changes the layout of construction of homes within the project site, the limits of disturbance associated with the project footprint would not change with the exception of a 0.2-acre area of off-site grading required for the storm drain access road. This additional area would not affect the conclusions in the EIR related to mineral resources. Additionally, the relocation of the

SDG&E 69kV system would not result in new previously undisclosed mineral resource impacts identified in the 2012 FEIR. No additional impact to on-site MRZ-2 zones would result. Therefore, there would be no overall increase or severity of impacts to mineral resources beyond that previously discussed in the 2012 FEIR. No new mitigation would be required.

XII. NOISE – Since the previous EIR was certified, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in one or more effects from noise including: exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels; a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; for projects located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, or for projects within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

YES	NO
☐	☒

Section 3.4 of the 2012 FEIR provides an analysis of noise impacts associated with the approved project.

Traffic-Generated Noise (Issue 1): The 2012 FEIR analyzed impacts associated with traffic generated noise and concluded that exterior noise levels adjacent to the major roadways were projected to exceed the County's standard of 60 community noise equivalent level (CNEL), resulting in a significant impact (Impact N-1). In addition, interior noise levels at the multi-family units were projected to exceed 60 CNEL, and exterior noise levels on second-floor balconies were projected to exceed 60 CNEL, resulting in a significant impact (Impact N-2). The 2012 FEIR required adoption of Mitigation Measures M-N-1 and M-N-2, as conditions of approval for the project, which would mitigate these impacts to less than significant. All other areas were not projected to be subject to noise levels in excess of County standards.

Stationary Noise (Issue 2): The 2012 FEIR analyzed impacts related to on-site land use noise compatibility, construction noise, and noise generated at Rosemary's Mountain Rock Quarry and the then proposed wastewater treatment plant. Noise impacts associated with Rosemary's Mountain Rock Quarry, and construction noise were found to be less than significant. Additionally, Mitigation Measure M-N-3 requiring the construction of a noise barrier was required to reduce noise levels associated with the proposed wastewater treatment plant.

As far as on-site land use noise compatibility, the 2012 FEIR included mitigation measures requiring noise barriers (Mitigation Measure M-N-1) and interior noise analyses (Mitigation Measure M-N-2) for uses that would be exposed to noise levels in excess of the County's standards. Since certification of the 2012 FEIR, two subsequent noise analyses were prepared. The noise analysis dated May 29, 2014 (2014 Noise Letter) re-evaluated future exterior noise levels based on updated General Plan Noise Element standards. The 2014 Noise Letter found that noise levels at the multi-family residential, park, and school uses would not exceed County compatibility standard of 65 CNEL, and mitigation at these uses would not be required. It was also found that barriers ranging

from 3 to 4 feet would be required to reduce noise levels to the single-family residential compatibility standard of 60 CNEL for several single family lots located at the western edge of Planning Area 5. Construction of these barriers would reduce future noise levels to 60 CNEL or less, and impacts would be mitigated to a level less than significant. The noise analysis dated March 3, 2017 (2017 Noise Letter) evaluated noise levels throughout the project site based on the detailed grading plans for the original project design. The 2017 Noise Letter found identified noise barriers could be further reduced in Planning Area 5 and Planning Area 1. In the western portion of Planning Area 5, 950 feet of 3-foot noise barriers would be required and 1,320 feet of 4-foot noise barriers would be required. In Planning Area 1, 942 feet of 4-foot noise barriers would be required along the eastern boundary and 1,724 feet of 8-foot noise barriers would be required along the southern and northeastern boundaries. These wall heights were found to reduce future noise levels to 65 CNEL at the multi-family uses.

Updated Plan

Implementation of the Updated Plan would not result in new, previously undisclosed impacts beyond those identified in the 2012 FEIR. With the exception of the 0.2-acre area of grading for the storm drain access road, all construction that would occur as a result of implementing the Updated Plan would occur within the development footprint assessed in the 2012 FEIR. While grading volumes have increased, overall grading duration and intensities are consistent with the original project assumptions. The additional grading associated with construction of the storm drain access road would be required; however, as detailed in the SCR graphics, the overall grading footprint would be reduced by approximately 10 acres; thus, even with the additional 0.2-acre area for the off-site storm drain access road, overall grading operations (duration and intensity) would be the same as what was originally evaluated and no changes to the conclusions for construction noise would result. Additionally, relocation of the SDG&E 69kV system would not result in new previously undisclosed noise impacts identified in the 2012 FEIR. Construction noise levels would not be greater than those identified in the 2012 FEIR as the grading durations, anticipated equipment and intensity of grading would not change. Similar to the proposed project, noise impacts associated with construction activities would be less than significant. The Updated Plan would not result in any change in the noise levels associated with Rosemary's Mountain Rock Quarry operations. The previously proposed on-site wastewater treatment plant would be removed as part of the project, therefore, impacts associated with the Updated Plan would be less than those identified in the 2012 FEIR and Mitigation Measure M-N-3 would no longer be required.

The Updated Plan would contain the same number of dwelling units as analyzed under the 2012 FEIR, thereby ensuring traffic-generated noise levels would remain the same.

The following discussion of noise impacts associated with on-site land use noise compatibility is based on the Meadowood Noise Re-evaluation completed for the Updated Plan (see Attachment C). The applicable General Plan Noise Element noise compatibility standard for multi-family, park, and school uses is 65 CNEL and the applicable standard for single-family uses is 60 CNEL. The applicable noise standard for interior habitable space is 45 CNEL per the California Building Code.

Planning Area 1: The Updated Plan would change the land uses in the southern portion of the planning area (south of Street R) from Multi-family to Park and Open Space, consistent with the Specific Plan. The grading plans from the original project design evaluated in the 2017 Noise Letter identified an 8-foot-high barrier along the southern and northeastern edge and a 4-foot-high barrier along the eastern edge of the southern portion of Planning Area 1 to reduce noise

levels to the previous multi-family compatibility level of 60 CNEL or less. The multi-family compatibility level has since been revised to 65 CNEL. Using the grading plan for the Updated Plan, noise levels were evaluated for Planning Area 1 at the multi-family and park areas. Noise levels within the southern portion of Planning Area 1 at the designated park area and noise levels at the multi-family uses in the northern portion of Planning Area 1 would not exceed 65 CNEL (see Figure 16b), therefore, the 4-foot and 8-foot barriers identified in the 2017 Noise Letter would not be required.

Planning Area 2: Planning Area 2 would remain a school use. Based on the noise contours shown in Figure 16b, future noise levels at this planning area would not exceed 65 CNEL, and impacts would be less than significant.

Planning Area 3: The Updated Plan would change the land use in Planning Area 3 from Park to Multi-family, resulting in the addition of 49 dwelling units. Future noise levels at Planning Area 3 would not exceed 65 CNEL; therefore, exterior noise impacts for both multi-family and park uses would be less than significant.

Planning Area 4: Multi-family land uses would be constructed in Planning Area 4. The Updated Plan would add 45 multi-family dwelling units to this area. Future noise levels at Planning Area 4 would not exceed 65 CNEL. Therefore, exterior noise impacts would be less than significant.

Planning Area 5: The Updated Plan would add 18 single-family dwelling units to Planning Area 5. The Updated Plan also revises the site and grading plan for Planning Area 5. The grading plans from the original project design evaluated in the 2017 Noise Letter identified 3- and 4-foot noise barriers would be required in the western portion of Planning Area 5 to reduce noise levels to 60 CNEL or less. Using the grading plans associated with the Updated Plan, noise levels at the proposed single-family lots were calculated using SoundPLAN. Figure 16a shows that unmitigated noise levels would not exceed the single-family noise compatibility standard of 60 CNEL. Based on this refined noise analysis, which takes into account the revised site plan and updated grading plan, the barriers shown in the 2017 Noise Letter would not be required.

Planning Areas 6 and 7: The Updated Plan would not result in changes to Planning Areas 6 and 7. No sensitive land uses would be constructed in these areas and impacts would be less than significant.

Based on the 2019 Noise Letter and as shown on Figure 16a and 16b, no residential use is proposed within an area that would be subject to noise levels in excess of 60 CNEL. All residential areas would be subject to unmitigated noise levels of 60 CNEL or less. As standard construction materials conservatively reduce noise levels at the interior of a structure by 15 CNEL, no residential use would be subject to interior noise levels in excess of 45 CNEL. Thus, a noise protection easement is no longer required with the Updated Plan. This requirement, identified in the 2012 FEIR as M-N-2 and corresponding to County Condition 12, is no longer applicable to the project.

In summary, there would be no overall increase or severity of noise levels beyond that previously discussed in the 2012 FEIR and subsequent noise letters. No new mitigation would be required.

Image Source: Nearmap (flown June 2019)



Project Boundary
Lot Lines
Concept Grading

Noise Levels
<55 CNEL
55-60 CNEL
60-65 CNEL
65+ CNEL

0 Feet 400

RECON

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FIGURE 16a
Unmitigated Noise Contours - North



RECON

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FIGURE 16b
Unmitigated Noise Contours - South

XIII. POPULATION AND HOUSING – Since the previous EIR was certified, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in one or more effects to population and housing including displacing substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere?

YES	NO
☐	☒

The 2012 FEIR analyzed population and housing impacts and concluded that the San Diego County General Plan, Fallbrook Community Plan, and the Meadowood Specific Plan Amendment acknowledge the Campus Park, Campus Park West, and Palomar College developments in conjunction with the project. All of this development is addressed in these planning documents, which consider the population growth and housing concerns in relation to development proposed by the project. As the project would provide 844 single- and multi-family housing units, and would not displace any housing, impacts to population and housing were determined to be less than significant. Likewise, the 2012 FEIR determined that the cumulative introduction of housing proposed by the Campus Park and Campus Park West projects would be less than significant.

Updated Plan

The Updated Plan would not change the approved project with respect to the number of proposed housing units. The Updated Plan would relocate the neighborhood park to Planning Area 1, while designating Planning Area 3 for residential development. The overall dwelling unit count within the project area would remain at a total of 844 units. The relocation of the 69 KV line and the new storm drain access road would not affect issues related to population and housing. Population at buildout would be the same as compared to that discussed in the 2012 FEIR. The Updated Plan would not require the need to build replacement housing elsewhere, as the project would not displace substantial numbers of existing housing or people.

XIV. PUBLIC SERVICES – Since the previous EIR was certified, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in one or more substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services: fire protection, police protection, schools, parks, or other public facilities?

YES	NO
☐	☒

Public Services (Issue 1): The 2012 FEIR analyzed impacts related to the project's effect on schools, fire and police protection, and solid waste services. The 2012 FEIR concluded that the project would not add demands on public safety and service providers requiring the construction or alteration of existing facilities. Specifically, all school districts that serve the project site have indicated that they would be able to serve the projected student population associated with the project. In addition, the project includes 12.7 acres designated as a school site to serve the projected increase in student population within the Bonsall Union Elementary School District. Likewise, fire protection and law

enforcement services are adequate to serve the proposed build-out of the project. With respect to solid waste, the 2012 FEIR concluded that there would be sufficient existing permitted solid waste service capacity to accommodate the project's needs for solid waste disposal.

Updated Plan

The Updated Plan would relocate the neighborhood park to Planning Area 1, while designating Planning Area 3 for residential development. The overall dwelling unit count within the project area would be the same as the approved project. The relocation of the 69kV line and the new storm drain access road would not affect demand for public services. There would be no overall increase or severity of demands on public services beyond that previously discussed in the 2012 FEIR. No new mitigation would be required.

XV. RECREATION – Since the previous EIR was certified, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in an increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or that include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

YES	NO
☐	☒

The 2012 FEIR evaluated whether the project would meet all General Plan or other County requirements for parks. As detailed in the San Diego County General Plan Compliance Report for the Proposed Project (Appendix K of the 2012 FEIR) the project would be consistent with all recreational goals and policies contained within the Fallbrook Community Plan, Interstate 15/Highway 76 Master Specific Plan, and County General Plan.

Updated Plan

The Updated Plan would relocate the proposed neighborhood park from Planning Area 3 to Planning Area 1, as shown on Figure 8. The relocation of the neighborhood park to Planning Area 1 would result in an increase in total public and private park acreage within the project site from 5.7 net acres to a total of 8.1 net acres. The public park site in Planning Area 1 south would be approximately 7.6 net acres (8.8 gross acres) and would be maintained by the applicant for a minimum of two years prior to being turned over to the County Department of Parks and Recreation for long term management. Due to the location of the park in Planning Area 1 south being located on top of cultural resources that will be preserved in place, a cultural resource management plan has been prepared that will be managed as an internal document by the County for purposes of ensuring long term management of the park in perpetuity consistent with requirements of the 404 permit (permit number SPL-2012-00608-WSZ) issued September 11, 2018 by the ACOE) for the Meadowood Specific Plan Area and the Memorandum of Agreement between the Applicant, ACOE, and the California State Historic Preservation Office dated August 9, 2018. These changes would not affect the conclusions of the 2012 FEIR related to recreation. Additionally, the relocation of the 69kV line and the new storm drain access road would not affect demand for parks or affect the FEIR conclusions related to parks. There would no change to the conclusions in the 2012 FEIR associated with recreation. No new mitigation would be required.

XVI. TRANSPORTATION/TRAFFIC – Since the previous EIR was certified, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause effects to transportation/traffic including: an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system; exceedance, either individually or cumulatively, of a level of service standard established by the county congestion management agency for designated roads or highways; a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks; substantial increase in hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); inadequate emergency access; inadequate parking capacity; and/or a conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

YES	NO
☐	☒

Section 2.3 of the 2012 FEIR provides an analysis of transportation/traffic impacts associated with the approved project.

The 2012 FEIR identified that the project would generate a worst-case scenario of 8,740 average daily traffic (ADT). As a result of increased trips, operation of the project was determined to result in direct traffic-related impacts at one intersection at Old Highway 395/Reche Road, and along two segments of SR-76 from Via Monserate to Gird Road and SR-76 from the I-15 southbound ramp to the I-15 northbound ramp. The project required adoption of Mitigation Measure M-TR-1 (signalization of Old Highway 398 and Reche Road), which reduced the intersection impact to a less than significant level. In addition, the 2012 FEIR required adoption of Mitigation Measure M-TR-2, which identifies that impacts to two segments along SR-76 would be addressed by the California Department of Transportation's (Caltrans) SR-76 West improvement project that includes the construction of an additional lane of travel on the SR-76. However, because the County has no control over the timing of these improvements, the 2012 FEIR determined that traffic impacts along these two road segments would remain significant and unmitigable. Since certification of the 2012 FEIR, the SR-76 West improvement project was completed (in 2017) and included the additional lanes along the two segments that were determined to be impacted in the 2012 FEIR. Thus, no additional improvements are required at this time. As discussed in Chapter 1 and Section 2.3 of the 2012 FEIR, construction-related trips would be managed in a Traffic Control Plan (TCP) that is required to be approved by the County Department of Public Works prior to the start of grading activity. The approval of a TCP would assure that construction-related traffic impacts would be less than significant.

Cumulative Impacts: The 2012 FEIR determined that cumulative traffic impacts would result at 19 intersections and 14 roadway segments. The 2012 FEIR determined that payment into the County's Traffic Impact Fee program would mitigate these cumulative impacts to the 19 intersections and 14 roadway segments to less than significant. However, the 2012 FEIR determined that since multiple projects are proposing development which would change the existing land usages to urban land usage, there would be an increase in traffic related impacts. Although each project would provide design measures, like the project, both direct and cumulative impacts within the region would be unavoidable. Therefore, significant direct and cumulative impacts would remain, and a Statement of Overriding Considerations was required to be adopted to address this significant and unmitigated impact.

Updated Plan

A Trip Generation Reduction Change and Unit Shift Memo (memo) was prepared for the Updated Plan by LOS Engineering, Inc. (Attachment E). The memo assesses anticipated traffic impacts associated with a reduction in overall units from 858 total units, as analyzed in the approved May 5, 2009 Traffic Study, to 844 dwelling units (maximum per approved VTM). The approved May 5, 2009 Traffic Study estimated a total of 8,740 ADT, with 965 AM peak hour trips and 864 PM peak hour trips.

According to the memo, the Updated Plan is anticipated to generate 8,694 ADT, with 961 total AM peak hour trips and 860 total PM peak hour trips. This would result in a decrease of 46 ADT, and a decrease in 4 AM peak hour trips and 5 PM peak hour trips. As such, the Updated Plan would result in a reduction of project traffic from what was previously analyzed in the approved May 5, 2009 Traffic Study.

The memo also assesses the impacts associated with land use shifts between planning areas within the project site. As shown in Table 4, Planning Areas 1 and 2 would have a reduction or no change in trip generation, while Planning Areas 3, 4, and 5 would have a shift of traffic from the other planning areas; however, there would be an overall reduction in total trip generation.

Table 4
Planning Area Trip Generation Shift

Planning Area		ADT	AM Peak Hour Trips	PM Peak Hour Trips	Difference
PA 1	Approved	1,376	111	138	-878 ADT; -74 AM Peak Hour Trips; -89 PM Peak Hour Trips
	Project	498	37	49	
PA 2	Approved	1,116	357	101	None
	Project	1,116	357	101	
PA 3	Approved	50	2	4	+342 ADT; +30 AM Peak Hour Trips; +36 PM Peak Hour Trips
	Project	392	32	40	
PA 4	Approved	2,648	212	265	+320 ADT; +25 AM Peak Hour Trips; +32 PM Peak Hour Trips
	Project	2,968	237	297	
PA 5	Approved	3,550	284	356	+170 ADT; +14 AM Peak Hour Trips; +17 PM Peak Hour Trips
	Project	3,720	297	373	
Total		**-46**	**-4**	**-5**	

Based on the revised trip generation analysis, the intersections within the project site under the Horizon Year plus Project conditions would result in LOS C conditions for three project intersections, as shown in Table 5. No new significant impacts would occur.

Table 5
Horizon Year Plus Project with Planning Area Adjustment Intersection Operations

Intersection	Peak Hour	Horizon Year Plus Previous Project		Horizon Year Plus Project Plus Planning Area Adjustment			Sig?	CMP Sig?
		Delay	LOS	Delay	LOS	Delta		
Horse Ranch Creek Road at Harvest Glen Lane (S)	AM	22.2	C	22.6	C	0.4	No	No
	PM	30.2	C	30.7	C	0.5	No	No
Horse Ranch Creek Road at Pardee South Loop (S)	AM	18.9	B	21.9	C	3.0	No	No
	PM	27.3	C	33.5	C	6.2	No	No
Horse Ranch Creek Road at School/Park Access (U)	AM	15.6	C	16.6	C	1.0	No	No
	PM	18.7	C	20.2	C	1.5	No	No

(S) – Signalized; (U) – Unsignalized; Delay – HCM Control Delay in seconds; LOS – Level of Service; Delta – increase in delay from project; Sig – significant impact based on County of San Diego criteria; CMP Sig – Congestion Management Program impact based on CMP criteria

Based on the revised trip generation analysis, roadway segments within the project site under the Horizon Year plus Project conditions would result in LOS C conditions for three project roadway segments, as shown in Table 6. No new significant impacts would occur.

The Updated Plan would generate fewer overall trips than analyzed in the approved May 5, 2009 Traffic Study, resulting in no change to the 2012 FEIR findings beyond the project boundary. Within the project site, there would be a shift of planning area land uses; however, the shift of project traffic would not change the approved May 5, 2009 Traffic Study findings in that the affected intersections and roadway segments would operate at an acceptable LOS.

The Updated Plan would not result in unanticipated construction activity beyond that previously discussed in the 2012 FEIR. No new impacts associated with transportation/traffic would occur, and no new mitigation would be required.

Table 6
Horizon Year Plus Project with Planning Area Adjustment Segment Operations

Segment	September 2005 Circulation Element	Horizon Year Plus Previous Project				Adjusted Planning Area Daily Volumes	Horizon Year Plus Project Plus Planning Area Adjustment				Change in V/C	Cumulative Impact?	CMP Impact?
		Daily Volume	LOS E Capacity	V/C	LOS		Daily Volume	LOS E Capacity	V/C	LOS			
Horse Ranch Creek Road													
Harvest Glen Lane to Intersection (#26)	Boulevard 4.2A	20,800	27,000	0.77	B	98	20,898	27,000	0.77	B	0.00	No	No
Intersection (#26) to Park/School	Boulevard 4.2A	22,600	27,000	0.84	C	834	23,434	27,000	0.87	C	0.03	No	No
Park/School to Street R	Boulevard 4.2A	22,800	27,000	0.84	C	834	23,634	27,000	0.88	C	0.03	No	No

Delay – HCM Control Delay in seconds; LOS – Level of Service; Delta – increase in delay from project; Sig – significant impact based on County of San Diego criteria; CMP Sig – Congestion Management Program impact based on CMP criteria

XVII. TRIBAL CULTURAL RESOURCES – Since the previous EIR was certified or previous Negative Declaration was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to tribal cultural resources including: causing a change in the significance of a tribal cultural resource as defined in Public Resource Code §21074?

YES	NO
☐	☒

Since the EIR for the Meadowood Specific Plan (PDS2004-3800-04-002 [GPA], PDS2004-3810-04-001 [SP], PDS2004-3600-04-004 [REZ], PDS2004-3100-5354 [TM], PDS2008-3300-08-023 (MUP), PDS2004-3500-04-005 [STP], PDS2004-3500-04-006 [STP], PDS2004-3500-04-007 [STP], PDS2004-3910-04-02-004 [ER]) was certified, there has been a change in circumstances. Assembly Bill 52 (AB-52) became effective on July 1, 2015. AB-52 requires that tribal cultural resources (TCR) be evaluated under CEQA. The proposed project was evaluated for TCRs; however, AB-52 consultation does not apply since the environmental document is not a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report.

Section 3.3 of the 2012 FEIR provides an analysis of cultural resource impacts associated with the approved project.

Archaeological Resources and Human Remains (Issues 2, 3, and 4): The 2012 FEIR analyzed impacts to archaeological resources and concluded that development of the project site could result in potentially significant impacts as follows: the loss of a known archaeological site (CA-SDI-682) and/or the loss of previously unrecorded archaeological resources or human remains (Impacts CR-2, CR-3, CR-4, and CR-5). The 2012 FEIR required adoption of Mitigation Measures M-CR-1 through M-CR-4 (capping, temporary fencing, and archaeological monitoring). Implementation of the measures, as conditions of project approval, would reduce significant impacts to less than significant.

Cumulative Impacts: The 2012 FEIR determined that cumulative impacts to cultural resources would be less than significant. The 2012 FEIR concluded that because the project and the impacts associated with the cumulative impact area were examined for their significance, there would be no cumulative loss of information associated with their development. Additionally, if new resources are discovered during development within the cumulative impact area, site-specific measures necessary to evaluate and collect relevant information would occur. Cumulative impacts were therefore determined to be less than significant.

Post approval, site CA-SDI-682 was identified as a TCR. However, as discussed above, AB-52 consultation does not apply to the project. Section 106 consultation was conducted as part of the 404-permit process. Additional measures, as part of the 404 permit, are required to address the site as a TCR.

Updated Plan

The Updated Plan would substantially reduce the potential loss of a known archaeological site (CA-SDI-682). The Updated Plan moves the proposed park site and passive open space area (8.8-gross acre park site and 7.6 acres of passive open space shown on Figure 1) to the southern portion Planning Area 1 (south of Street R). As a result of this relocation, no housing development would

occur within the southern portion of Planning Area 1. Very limited excavation would be allowed to occur within the southern portion of Planning Area 1. The entirety of the park site and open space area would be capped with no disturbance to the native soils. As such, impacts to known and unknown cultural resources would be less than significant. All grading activities occurring as a result of implementing the Updated Plan would be required to comply with mitigation measures identified in the 2012 FEIR, as well as those identified in the MOA and MTP completed for the project as conditions of the project's 404 permit.

Because the project is an undertaking as defined in Section 106 of the National Historic Preservation Act, Section 106 as implemented (36 Code of Federal Regulations Part 800) requires federal agencies to identify cultural resources within the area of potential effect, to assess impact to resources found eligible for the National Register of Historic Places, and to mitigate adverse effects to eligible resources. The MOA and MTP outline the avoidance and minimization measures to mitigate adverse effects to the cultural resources within the project area.

The relocation of the SDG&E 69kV system would not result in new previously undisclosed cultural resources impacts identified in the 2012 FEIR. Although there have been minor changes to the project design as it relates to the alignment of the SDG&E 69kV system, these changes are located within the original project limits of disturbance. Impacts to cultural resources associated with grading for the entire project were analyzed in the 2012 FEIR. The 69kV relocation would not increase grading beyond the limits of disturbance previously analyzed.

All grading activities, including minor grading for installation of the storm drain access road, occurring as a result of implementing the Updated Plan would be required to comply with mitigation measures identified in the 2012 FEIR, as well as those identified in the MOA and MTP completed for the project as conditions of the project's 404 permit. Therefore, there would be no overall increase or severity of impacts to cultural resources beyond that previously discussed in the 2012 FEIR. No new mitigation would be required.

XVIII. UTILITIES AND SERVICE SYSTEMS – Since the previous EIR was certified, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause effects to utilities and service systems including: exceedance of wastewater treatment requirements of the applicable Regional Water Quality Control Board; require or result in the construction of new water or wastewater treatment facilities, new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; require new or expanded entitlements to water supplies or new water resources to serve the project; result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments; be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; and/or noncompliance with federal, state, and local statutes and regulations related to solid waste?

YES	NO
☐	☒

Section 4.6 of the 2012 FEIR provides an analysis of utilities associated with the approved project.

Public Utilities (Issue 1): The previously certified 2012 FEIR analyzed impacts related to the project's effect on the provision of water and wastewater services required for project development, as well as service providers and facilities needed to meet this demand. The 2012 FEIR concluded that the project would not add demands on public utilities requiring the construction or alteration of existing facilities. Specifically, the Water Supply and Verification Report, and Wastewater Service Alternative Study prepared for the project (Appendices N-2 and N-3 of the 2012 FEIR) determined there would be adequate water supply and wastewater services to support the project.

Updated Plan

The Updated Plan would relocate the neighborhood park to Planning Area 1, while designating Planning Area 3 for residential development. The overall dwelling unit count within the project area would remain at 844 units.

In regard to wastewater services, the Updated Plan would remove the WWTP, thereby necessitating a requirement for off-site wastewater treatment. In order to accommodate the anticipated wastewater from the project site, sewer service is anticipated to be provided by Valley Center Municipal Water District, with the option that Bonsall Municipal Water District may provide service. The ultimate water district will serve as lead agency for CEQA documentation and implementation of the necessary infrastructure improvements to accommodate the project development. As detailed in Attachment F, regardless of the wastewater supplier that is selected, 100 percent of the project's wastewater would be reused or recycled by the respective water district. This reuse of the project's wastewater, while not being reused on-site as identified in the original project, would be consistent with the original plan to reuse of 100 percent of the project's wastewater. However, as a result of the project not reusing wastewater for irrigation of common areas on the project site, additional potable water would be required to irrigate common landscape areas under the Updated Plan. Attachment F details how the Updated Plan landscape water use would be reduced to achieve consistency with the potable water demand requirements of the original project. As detailed in the attachment, the project's landscaped area that would require irrigation would be reduced due to the project redesign and due to the anticipated15 acres of exposed rock slopes requiring no irrigation. These project design changes would result in a 38 percent reduction from the original project's irrigation water demand. Additionally, current landscape ordinance requirements are estimated to result in an approximately 22 percent reduction in landscape water use compared to the ordinance in effect in 2012. Water saving features includes increased use of xeriscape and drought-tolerant landscaping, as well as the use of more water-efficient irrigation controllers and sprinklers in all common landscape areas. In addition, high-end materials technologies would be implemented to reduce potable water use by future residents, including low-flush toilets and low-use fixtures. These new regulatory requirements would result in additional irrigation water savings. Overall the Updated Plan is anticipated to result in a 52 percent reduction in irrigation demand compared to the original project, as detailed in Table 7. Remaining project water demand would be the same as originally evaluated.

Table 7 Summary of Landscape Water Savings		
Water Savings Summary	Water Savings (gpd)	Percent Savings
Savings due to Changes in the Project Design	58,740	38% reduction from original irrigation demand
Savings due to Landscape Ordinance Changes between 2012 to Current Ordinance	20,790	Additional 22% reduction from revised irrigation demand
Total Landscape Water Demand under Original Project Design	153,240 gpd	
Total Landscape Water Demand under Current Project Design	73,710	Overall 52% reduction from original irrigation demand
gpd = gallons per day		

The relocation of the overhead powerlines and grading for the storm drain access road would not affect utilities demand. Therefore, utility impacts associated with the Updated Project would not result in increased demand compared to what was previously analyzed, and there would no overall increase or severity of demands on public services beyond that previously discussed in the 2012 FEIR. No new mitigation would be required.

XIX. MANDATORY FINDINGS OF SIGNIFICANCE – Since the previous EIR was certified, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in any mandatory finding of significance listed below?

Does the project degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

YES	NO
☐	☒

Attachments

A Previously certified Meadowood project 2012 FEIR (available on file with RECON and County of San Diego, Planning & Development Services)

B-1 Alternative Recommendations for Rockfall Potential prepared by GEOCON, Inc. dated December 7, 2017

B-2 Alternative Location of Rockfall Protection Wall prepared by GEOCON, Inc. dated July 4, 2018

C Meadowood Noise Re-evaluation dated July 29, 2019 prepared by RECON

D Biological Letter Report for the Off-Site Storm Drain Access Road dated May 9, 2019 prepared by RECON
E Meadowood (VTM 5354) Traffic Study Trip Generation Change and Unit Shift dated September 17, 2019
F Condition Satisfaction for Meadowood Condition 20 dated March 15, 2019

Michael Baker
INTERNATIONAL

Appendix C:
Approved Plant List

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APPENDIX 'D'

COUNTY OF SAN DIEGO
ACCEPTABLE PLANTS FOR DEFENSIBLE SPACE
IN FIRE PRONE AREAS

ALL NATIVE PLANTS ON THE FOLLOWING LIST are considered to be drought-tolerant in the particular climate zone they are found. Those that grow best in riparian areas, as indicated by the "R", are generally the least drought-tolerant plants on the list.

SPECIAL NOTE: When planting, it is necessary to water deeply to encourage plant roots to seek natural moisture in the soil. This watering should continue for at least three years to allow the plants to naturalize. More water should be provided in summer and less (if any) in the winter. These plants should be weaned from the supplemental irrigation and become less dependent on it over the establishment period.

No plant is totally fire resistant. The plants listed were chosen to due to their high water content, minimum amount of flammable resins and/or low fuel volume.

Definitions:

Drought-Tolerant Plant Materials: Trees, shrubs, groundcovers, and other vegetation capable of sustained growth and reproduction with only natural moisture. Occasional supplemental irrigation is necessary only in extreme drought situations.

Establishment Period: The time it takes for a plant to become drought-resistant. This is usually a period of three years and is the time when supplemental irrigation is necessary.

Native or Naturalizing Plant Species: Plant species native to the region or introduced which, once established, are capable of sustaining growth and reproduction under local climatic conditions without supplemental irrigation.

***FIREWISE 2000*, Inc. Note:** The plant list which follows was developed using the plants found on the San Diego County approved plant list. This list was then compared to those plants which are suitable for the climatic zone in which the project is located. Only those plants suitable for the project area are listed below. The list is therefore shorter than that provided by the County. By providing this custom list, plants that are likely to be killed or seriously damaged by frost or will not perform in hot dry conditions have been eliminated. ***FIREWISE 2000*, Inc.** believes that the planting of species suited to the site is essential to fire management goals and is a environmentally sound practice.

San Diego County
Customized Acceptable Plant List
For The Meadowood Project

No.	Type	Genus	Species	Common Name
1	Annual	Lupinus spp.	nanus	Lupine
2	Groundcover	Achillea	millefolium	Yarrow
3	Groundcover	Aptenia	cordifolia	Aptenia
4	Groundcover	Arctostaphylos spp.		Manzanita
5	Groundcover	Cerastium	tomentosum	Snow-in-Summer
6	Groundcover	Coprosma	kirkii	Creeping Coprosma
7	Groundcover	Cotoneaster spp.		Redberry
8	Groundcover	Drosanthemum	hispidum	Rosea Ice Plant
9	Groundcover	Dudleya	brittonii	Britton's Chalk Dudleya
10	Groundcover	Dudleya	pulverulenta	Chalk Dudleya
11	Groundcover	Dudleya	virens	Island Live-Forever
12	Groundcover	Eschscholzia	californica	California Poppy
13	Groundcover	Ferocactus	viridescens	Coast Barrel Cactus
14	Groundcover	Gaillardia	grandiflora	Blanket Flower
15	Groundcover	Gazania spp.		Gazania
16	Groundcover	Helianthemum spp.		Sunrose
17	Groundcover	Lantana spp.		Lantana
18	Groundcover	Lasthenia	californica	Common Goldfields
19	Groundcover	Lasthenia	glabrata	Coastal Goldfields
20	Groundcover	Lupinus spp.		Lupine
21	Groundcover	Myoporum spp.		Myoporum
22	Groundcover	Pyracantha spp.		Firethorn
23	Groundcover	Rosmarinus	officinalis	Rosemary
24	Groundcover	Santolina	chamaecyparissus	Lavender Cotton
25	Groundcover	Santolina	virens	Santolina
26	Groundcover	Trifolium	frageriferum	O'Connor's Legume
27	Groundcover	Verbena	rigida	Verbena

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No.	Type	Genus	Species	Common Name
28	Groundcover	Viguiera	laciniata	San Diego Sunflower
29	Groundcover	Vinca	major	Periwinkle
30	Groundcover	Vinca	minor	Dwarf Periwinkle
31	Perennial	Coreopsis	gigantea	Giant Coreopsis
32	Perennial	Coreopsis	grandiflora	Coreopsis
33	Perennial	Coreopsis	maritima	Sea Dahlia
34	Perennial	Coreopsis	verticillata	Coreopsis
35	Perennial	Heuchera	maxima	Island Coral Bells
36	Perennial	Iris	douglasiana	Douglas Iris
37	Perennial	Kniphofia	uvaria	Red-Hot Poker
38	Perennial	Lavandula spp.		Lavender
39	Perennial	Limonium	californicum perezii	Coastal Statice
40	Perennial	Limonium	californicum var. mexicanum	Coastal Statice
41	Perennial	Oenothera spp.		Primrose
42	Perennial	Penstemon spp.		Penstemon
43	Perennial	Satureja	douglasii	Yerba Buena
44	Perennial	Sisyrinchium	bellum	Blue-Eyed Grass
45	Perennial	Sisyrinchium	californicum	Golden-Eyed Grass
46	Perennial	Solanum	xantii	Purple Nightshade
47	Perennial	Zauschneria	‘Catalina’ ?	Catalina Fuschia
48	Perennial	Zauschneria	californica	California Fuschia
49	Perennial	Zauschneria	cana	Hoary California Fuschia
50	Shrub	Agave	americana	Desert Century Plant
51	Shrub	Agave	Amorpha fruticosa	False Indigobush
52	Shrub	Agave	deserti	Shaw’s Century Plant
53	Shrub	Agave	shawii	NCN
54	Shrub	Agave		Century Plant
55	Shrub	Arctostaphylos spp.		Manzanita
56	Shrub	Atriplex	canescens	Hoary Saltbush
57	Shrub	Baccharis	pilularis	Coyote Bush
58	Shrub	Baccharis	salicifolia	Mule Fat "R"
59	Shrub	Carissa	macrocarpa	Natal Plum
60	Shrub	Ceanothus spp.		California Lilac
61	Shrub	Cistus spp.		Rockrose
62	Shrub	Cneoridium	dumosum	Bush rue
63	Shrub	Comarostaphylis	diversifolia	Summer Holly
64	Shrub	Convolvulus	cneorum	Bush Morning Glory
65	Shrub	Dalea	attenuata v orcuttii	Orcutt’s Delea
66	Shrub	Elaeagnus	pungens	Silverberry
67	Shrub	Encelia	californica	Coast Sunflower
68	Shrub	Encelia	farinosa	White Brittlebush
69	Shrub	Eriobotrya	deflexa	Bronze Loquat
70	Shrub	Eriophyllum	confertiflorum	Golden Yarrow
71	Shrub	Escallonia spp.		Escallonia
72	Shrub	Feijoa	sellowiana	Pineapple Guava
73	Shrub	Fremontodendron	californicum	Flannelbush
74	Shrub	Fremontodendron	mexicanum	Southern Flannelbush
75	Shrub	Galvezia	juncea	Baja Bush-Snapdragon
76	Shrub	Galvezia	speciosa	Island Bush-Snapdragon
77	Shrub	Garrya	elliptica	Coast Silktassel
78	Shrub	Garrya	flavescens	Ashy Silktassel
79	Shrub	Heteromeles	arbutifolia	Toyon
80	Shrub	Lantana spp.		Lantana
81	Shrub	Lotus	scoparius	Deerweed
82	Shrub	Mahonia spp.		Barberry
83	Shrub	Malacothamnus	clementinus	San Clemente Island Bush Mallow
84	Shrub	Malacothamnus	fasciculatus	Mesa Bushmallow
85	Shrub	Melaleuca spp.		Melaleuca
86	Shrub	Mimulus spp.		Monkeyflower
87	Shrub	Nolina	parryi	Parry’s Nolina
88	Shrub	Photinia spp.		Photinia
89	Shrub	Pittosporum	crassifolium	NCN
90	Shrub	Pittosporum	rhombifolium	Queensland Pittosporum
91	Shrub	Pittosporum	tobira ‘Wheeleri’	Wheeler’s Dwarf
92	Shrub	Pittosporum	undulatum	Victorian Box
93	Shrub	Pittosporum	viridiflorum	Cape Pittosporum
94	Shrub	Plumbago	auriculata	Cape Plumbago
95	Shrub	Prunus	caroliniana	Carolina Laurel Cherry
96	Shrub	Prunus	ilicifolia	Hollyleaf Cherry
97	Shrub	Prunus	lyonii	Catalina Cherry
98	Shrub	Puncia	granatum	Pomegranate
99	Shrub	Pyracantha spp.		Firethorn
100	Shrub	Quercus	dumosa	Scrub Oak
101	Shrub	Rhamus	alaternus	Italian Buckthorn
102	Shrub	Rhamus	californica	Coffeeberry
103	Shrub	Rhaphiolepis spp.		Rhaphiolepis
104	Shrub	Rhus	continus	Smoke Tree
105	Shrub	Rhus	integrifolia	Lemonade Berry
106	Shrub	Rhus	laurina	Laurel Sumac
107	Shrub	Rhus	ovata	Sugarbush
108	Shrub	Rhus	trilobata	Squawbush
109	Shrub	Romneya	coulteri	Matilija Poppy
110	Shrub	Rosa	californica	California Wild Rose
111	Shrub	Rosa	minutifolia	Baja California Wild Rose

No.	Type	Genus	Species	Common Name
112	Shrub	Salvia spp.		Sage
113	Shrub	Sambucus spp.		Elderberry
114	Shrub	Symphoricarpos	mollis	Creeping Snowberry
115	Shrub	Syringa	vulgaris	Lilac
116	Shrub	Tecomaria	capensis	Cape Honeysuckle
117	Shrub	Teucrium	fruticans	Bush Germander
118	Shrub	Verbena	lilacina	Lilac Verbena
119	Shrub	Xylosma	congestum	Shiny Xylosma
120	Shrub	Yucca	schidigera	Mojave Yucca
121	Shrub	Yucca	whipplei	Foothill Yucca
121	Tree	Acer	macrophyllum	Big Leaf Maple
122	Tree	Acer	saccharinum	Silver Maple
123	Tree	Alnus	rhombifolia	White Alder "R"
124	Tree	Arbutus	unedo	Strawberry Tree
125	Tree	Archontophoenix	cunninghamiana	King Palm
126	Tree	Brahea	armata	Blue Mexican Palm
127	Tree	Brahea	edulis	Guadalupe Palm
128	Tree	Ceratonia	siliqua	Carob
129	Tree	Cercis	occidentalis	Western Redbud
130	Tree	Cornus	stolonifera	Redtwig Dogwood
131	Tree	Eriobotrya	japonica	Loquat
132	Tree	Erythrina	caffra	Kaffirboom Coral Tree
133	Tree	Gingko	biloba "Fairmount"	Fairmount Maidenhair Tree
134	Tree	Juglans	californica	California Walnut
135	Tree	Lagerstroemia	indica	Crape Myrtle
136	Tree	Ligustrum	lucidum	Glossy Privet
137	Tree	Liquidambar	styraciflua	Sweet Gum
138	Tree	Liriodendron	tulipifera	Tulip Tree
139	Tree	Lyonothamnus	floribundus ssp. Asplenifolius	Fernleaf Catalina Ironwood
140	Tree	Melaleuca spp.		Melaleuca
141	Tree	Myoporum spp.		Myoporum
142	Tree	Nerium	oleander	Oleander
143	Tree	Parkinsonia	aculeata	Mexican Palo Verde
144	Tree	Pistacia	chinensis	Chinese Pistache
145	Tree	Pistacia	vera	Pistachio Nut
146	Tree	Pittosporum	phillyreoides	Willow Pittosporum
147	Tree	Pittosporum	viridiflorum	Cape Pittosporum
148	Tree	Platanus	acerifolia	London Plane Tree
149	Tree	Platanus	racemosa	California Sycamore "R"
150	Tree	Populus	alba	White Poplar
151	Tree	Populus	fremontii	Western Cottonwood "R"
152	Tree	Populus	trichocarpa	Black Cottonwood "R"
153	Tree	Prunus	caroliniana	Carolina Laurel Cherry
154	Tree	Prunus	cersifera ‘Newport’	Newport Purple-Leaf Plum
155	Tree	Prunus	ilicifolia	Hollyleaf Cherry
156	Tree	Prunus	lyonii	Catalina Cherry
157	Tree	Prunus	xblireiana	Flowering Plum
158	Tree	Quercus	agrifolia	Coast Live Oak
159	Tree	Quercus	engelmannii	Engelmann Oak
160	Tree	Quercus	suber	Cork Oak
161	Tree	Rhus	lancea	African Sumac
162	Tree	Salix spp.		Willow "R"
163	Tree	Tristania	conferta	Brisbane Box
164	Tree	Ulmus	parvifolia	Chinese Elm
165	Tree	Ulmus	pumila	Siberian Elm
166	Tree	Umbellularia	californica	California Bay Laurel "R"
167	Vine	Antigonon	leptopus	San Miguel Coral Vine
168	Vine	Distictis	buccinatoria	Blood-Red Trumpet Vine
169	Vine	Keckiella	cordifolia	Heart-Leaved Penstemon
170	Vine	Lonicera	japonica ‘Halliana’	Hall’s Honeysuckle
171	Vine	Lonicera	subspicata	Chaparral Honeysuckle
172	Vine	Solanum	jasminoides	Potato Vine

For plants to be used in fuel treatment Zones A or B that are not found on this list, acquire approval from your local fire department first before installing them. Only "*firewise*" plants can be used in these zones.

Firewise 2000, Inc.
26337 Sky Drive, Escondido, CA
(760) 745-3947

Michael Baker
INTERNATIONAL

Appendix D:
Geotechnical Report

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GEOTECHNICAL INVESTIGATION
POTENTIAL NEW SCHOOL SITE
BONSALL UNIFIED SCHOOL DISTRICT
SOUTHEAST CORNER OF HORSE RANCH CREEK ROAD AND SHIRE COURT
FALLBROOK, CALIFORNIA

Prepared for:

BONSALL UNIFIED SCHOOL DISTRICT
ATTN: MS. LAURA CASTRO
31505 OLD RIVER ROAD
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Prepared by:

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CTE JOB NO.: 10-16564G NOVEMBER 23, 2022 (UPDATED APRIL 28, 2023)

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1.0 INTRODUCTION AND SCOPE OF SERVICES

1.1 Introduction

In accordance with your request and CTE proposal number G-5619 dated November 10, 2021, CTE, Inc. has prepared this geotechnical report for the potential Bonsall Unified School District (district) Citro school site. This report presents the field and laboratory data collected from two CTE field investigations and provides preliminary conclusions and geotechnical recommendations pertinent to the proposed project. CPT explorations performed by Kehoe Testing for Geocon Incorporated (Geocon) in 2022 were also used to supplement the development of our liquefaction analysis as discussed in Section 4.5.3 of this report.

1.2 Scope of Services

The scope of services provided included:

- Review of readily available geologic literature pertaining to the site vicinity.
- Review of referenced previous geotechnical and as-graded reports for the site.
- Review of preliminary project plans.
- Excavation, logging, and sampling of 24 exploratory borings across the site using a truck-mounted drilling rig.
- Performance of appropriate laboratory testing on selected samples of the encountered materials.
- Geotechnical engineering analysis of the data and information obtained.
- Evaluation of potential geologic hazards within the proposed development area.
- Site specific liquefaction and seismic settlement evaluation.
- Preparation of this geotechnical report.

2.0 PROJECT AND SITE DESCRIPTION

The subject site is located at the southeast corner of Horse Ranch Creek Road and Shire Court in Fallbrook, California (Figure 1). CTE understands that the school district is evaluating the subject site for potential purchase for future development of a new school campus. Based on communications with the school district, the Citro-3 layout is likely the preferred option. This layout includes classroom, gymnasium, library, and administrative buildings in the approximate northern half of the site with parking, an athletic field, and ball courts in the southern portion.

The site is currently being used as a temporary construction materials and equipment storage yard. The roughly-triangular-shaped, approximately twelve-acre site consists of a relatively flat / sheet-graded pad that gently slopes to the south, with two stormwater retention basins at the southernmost portion of the site (Figure 2). Approximate elevations across the graded pad range from a high of 312 feet above mean sea level (msl) at the north end of the site, to a low of 280 feet msl at the south end of the site, however, the bottoms of the two stormwater retention basins are below the graded pad surface. Approximate elevation information for the development area was obtained from the as-graded site map (Geocon, 2022). The current site conditions and approximate site boundary are as shown on Figure 2.

3.0 FIELD INVESTIGATION AND LABORATORY TESTING

3.1 Field Investigation

CTE performed a geotechnical investigation at the site on April 26 and 27, and August 8 and 9, 2022, consisting of a surface reconnaissance and a subsurface exploration program to evaluate current geotechnical conditions across the site. It should be noted that the initial CTE investigation

was limited to a maximum depth of exploration of 20.0 feet below ground surface (bgs) for the subsurface evaluation work. The investigation in August 2022 was performed to evaluate soils at depths beyond 20 ft bgs. In total, CTE's subsurface exploration program consisted of the excavation of 24 exploratory borings using a truck-mounted drilling rig equipped with 8-inch diameter hollow stem augers, to a maximum explored depth of approximately 51.5 feet bgs.

The excavations were continuously logged in the field by CTE Geologists and were visually classified in general accordance with the Unified Soil Classification System (USCS/ASTM D2487). The field descriptions have been modified, where appropriate, to reflect the laboratory test results. Detailed logs of the excavations are included in Appendix B.

Representative bulk samples and Standard Penetration Test (SPT) drive samples of the materials encountered were collected at selected locations and depths deemed appropriate to the investigation. The samples were labeled in the field and transported to CTE's laboratory for observation, testing, and geotechnical engineering analysis.

Geocon, Incorporated performed a CPT investigation at the site on March 21, 2022 to provide a liquefaction analysis for the site. These results were presented in the referenced Geocon report dated June 6, 2022. The CPT data were used in our analysis. The approximate locations of the exploratory borings and CPT soundings are displayed in Figure 2.

3.2 Laboratory Testing

Laboratory testing was performed on select samples of the materials obtained from the exploratory borings to aid in the material classifications and to evaluate geotechnical engineering properties of the materials encountered. The following tests were performed:

- Particle-Size Distribution Analysis (ASTM D6913)
- Expansion Index (ASTM D4829)
- Atterberg Limits (ASTM D4518)
- Consolidation (ASTM D2435)
- Corrosivity test series, including sulfate content, chloride content, pH-value, and resistivity (CTM 417, 422, and 532/643)

Testing was performed in general accordance with applicable ASTM standards and California Test Methods (CTM). A summary of the laboratory testing program and the laboratory test results are presented in Appendix C.

4.0 GEOLOGIC AND SOIL INFORMATION

4.1 Regional Geologic Setting

The site is located in the Fallbrook area of San Diego County and within the Peninsular Ranges physiographic province of California, which is characterized by northwest-trending mountain ranges, intervening valleys, and predominantly northwest trending active regional faults. The greater San Diego Region can be further subdivided into the coastal plain area, a central mountain–valley area, and the eastern mountain valley area. The project site is specifically located within the central mountain-valley area. This area is characterized by steep to moderately steep outcrops of Mesozoic igneous and metamorphic bedrock, with intervening drainage valleys infilled by Quaternary river terrace and flood plain deposits, and with Quaternary colluvial and alluvial deposits along hillsides and on valley floors.

4.2 Site-Specific Geologic and Soil Conditions

Reference to the published regional geologic map, *Geologic Map of the Oceanside 30'x60' Quadrangle, Kennedy & Tan, 2007*, indicates that the site is underlain at shallow to moderate depth by Quaternary old alluvial deposits (Map Symbol: Qoa), and is anticipated to be underlain at moderate to "deeper" depths by the extrapolated outcropping of the Cretaceous igneous bedrock known as the Granodiorite of Indian Mountain (Map Symbol: Ki). Previously placed fill (Map Symbol: Qppf), Quaternary young alluvium (Map Symbol: Qya), and mapped old alluvial deposits were encountered during the field investigation. The site geologic units encountered during the investigation and general stratigraphic sequence are depicted on Figure 2. Detailed descriptions and information concerning the geologic units encountered are provided in the following paragraphs and on the exploration logs in Appendix B.

4.2.1 Quaternary Previously Placed Fill (Qppf)

The subject site was previously graded during development of the Meadowood Planning Area 2 from February 2020 through October 2020 under grading observation and testing by Geocon. According to the as-graded report (Geocon, (2022), previous grading at the site consisted of removing topsoil, alluvium, and weathered "terrace deposits" (herein referred to as 'old alluvium') to expose competent old alluvium, Bonsall Tonalite bedrock, or to a depth of three to four feet above groundwater (Geocon, 2022). Existing site soils were then placed and compacted in lifts to achieve the existing grade.

Existing previously placed fill material was encountered at all exploratory excavation locations, except for locations B-1 and B-11 overlying young and/or old alluvial deposits, with encountered thicknesses ranging from approximately 3.0 to greater than 20.0 feet bgs.

As observed in the exploratory excavations, the encountered fill generally consists of medium dense to dense, slightly moist, brown, red-brown, dark brown, and black, fine- to medium-grained clayey sand and silty sand.

4.2.2 Quaternary Young Alluvium (Qya)

Naturally occurring young alluvial deposits were encountered in borings B-10, B-11, and B-19 through B-24 and extended to the maximum explored depth of approximately 51.5 feet bgs as observed in Borings B-22 through B-24. The young alluvium encountered generally consists of loose to medium dense, slightly moist, brown, red-brown, and light brown, fine- to medium-grained clayey sand, and very stiff to hard sandy clay.

4.2.3 Quaternary Old Alluvium (Qoa)

Naturally occurring old alluvial deposits were encountered in borings B-1, B-2, B-7, B-9, B-12, B-16, B-17, and B-19 through B-21, underlying existing previously placed fill and young alluvium at depths ranging from the surface to 35 feet bgs and were encountered to the maximum explored depth of approximately 51.5 feet bgs as noted in Boring B-21. As observed in the exploratory excavations, the encountered old alluvium generally consists of medium dense to dense, slightly moist, oxidized brown, red-brown, and light brown, fine- to medium-grained clayey sand.

4.2.4 Cretaceous Granodiorite of Indian Mountain (Ki)

Cretaceous Granodiorite of Indian Mountain (granitic bedrock) was encountered beneath the old alluvium in Borings B-19 and B-20 at 30.5 and 46.5 feet bgs, respectively. The granitic bedrock is anticipated to underlie the entire site at depth. Where encountered, the weathered granitic bedrock excavated as a very dense, slightly moist, oxidized red to gray, silty sand.

4.3 Site Groundwater Conditions

Groundwater was encountered in borings B-20, B-22, B-23, B-24 at depths ranging from approximately 23 to 47 feet bgs. The attached boring logs (Appendix B) indicate the observed depths and materials in which groundwater was encountered. Research of available literature and documents pertaining to the site development history indicate that there is an infilled generally north-south trending drainage channel transecting the site, which corresponds to the area with the observed presence of the noted relatively shallow groundwater. Should deep soil remediation (unsuitable / soft soil removal) be necessary for site development, groundwater in this area is anticipated to be a considerable factor in both mitigation design and during remedial grading activities.

In addition, it should be understood that groundwater may occur in locations where previously not encountered, especially following periods of sustained precipitation and/or excessive irrigation. Localized seepage or perched water may be encountered during grading and construction.

4.4 Site Infiltration Feasibility Condition

Based on the findings of the preliminary investigation, and on the findings of the reviewed existing geotechnical documentation, reports, and available literature pertaining to the site and site development history, the southeastern area of the existing graded pad is underlain by moderately-thick to deep fills. As such, this area is not considered suitable for discharge of stormwater runoff. However, the southern portion of the site which is also shown on the proposed site layout plan contains a basin used for stormwater infiltration. Continued use of this area for infiltration should be reevaluated. The western portion of the existing graded pad is underlain by relatively shallow fill (appears to range from approximately 1 to 5 feet thick). This area may or may not be suitable for discharge of stormwater runoff and should be re-evaluated once a more precise site layout has been provided, and onsite percolation testing information becomes available.

4.5 Geologic Hazards

Geologic hazards that were considered to have potential impacts to site development were evaluated based on field observations, literature review, and laboratory test results. The following sections discuss the geologic hazards considered and their potential risk to the site development.

4.5.1 Surface Fault Rupture

In accordance with the Alquist-Priolo Earthquake Fault Zoning Act, (ACT), the State of California established Earthquake Fault Zones around known active faults. The purpose of the ACT is to regulate the development of structures intended for human occupancy near active fault traces in order to mitigate hazards associated with surface fault rupture. According to the California Geological Survey (Special Publication 42, Revised 2018), a fault that has had surface displacement within the last 11,700 years is defined as a Holocene-

active fault and is either already zoned or is pending zonation in accordance with the ACT. There are several other definitions of fault activity that are used to regulate dams, power plants, and other critical facilities, and some agencies designate faults that are documented as older than Holocene (last 11,700 years) and younger than late Quaternary (1.6 million years) as potentially active faults that are subject to local jurisdictional regulations.

Based on the site reconnaissance and review of referenced literature, the site is not located within a State-designated Earthquake Fault Zone, no known active fault traces underlie or project toward the site, and no known potentially active fault traces underlie or project toward the site. Therefore, the potential for ground surface rupture occurring at the site is considered low.

4.5.2 Local and Regional Faulting

The United States Geological Survey (USGS), with support of State Geological Surveys, and reviewed published work by various researchers, have developed a Quaternary Fault and Fold Database of faults and associated folds that are believed to be sources of earthquakes with magnitudes greater than 6.0 that have occurred during the Quaternary (the past 1.6 million years). The faults and folds within the database have been categorized into four Classes (Class A-D) based on the level of evidence confirming that a Quaternary fault is of tectonic origin and whether the structure is exposed for mapping or inferred from fault related deformational features. Class A faults have been mapped and categorized based on age of documented activity ranging from Historical faults (activity within last 150 years), Latest Quaternary faults (activity within last 15,000 years), Late Quaternary (activity within last 130,000 years), to Middle to late Quaternary (activity within last 1.6 million years). The

Class A faults are considered to have the highest potential to generate earthquakes and/or surface rupture, and the earthquakes and surface rupture potential generally increases from oldest to youngest. The evidence for Quaternary deformation and/or tectonic activity progressively decreases for Class B and Class C faults. When geologic evidence indicates that a fault is not of tectonic origin it is considered to be a Class D structure. Such evidence includes joints, fractures, landslides, or erosional and fluvial scarps that resemble fault features, but demonstrate a non-tectonic origin.

The nearest known Class A fault is the Elsinore Fault Zone (<15,000 years), which is approximately 7.2 miles northeast of the site. The attached Figure 3 shows regional faults and seismicity with respect to their distance from the site.

4.5.3 Historic Seismicity

The level of seismicity within recent history (last 50 years) of the San Diego area is relatively low compared to other areas of southern California and northwestern Baja California. Only a few small to moderate earthquakes have been reported in the San Diego area during the period of instrumental recordings, which began in the early 1900s. Most of the high seismic activity in the region is associated with the Elsinore Fault Zone and the San Jacinto Fault Zone, located approximately 12.2 and 40 kilometers (km) northeast of the site. In the western portion of San Diego County, a series of small-to-moderate earthquakes in July 1985 were reportedly associated with the Rose Canyon Fault Zone (Reichle, 1985) approximately 55 km southwest of the site. The largest event in that series was M4.7, which was centered within San Diego Bay. A similar series of earthquakes in coastal San Diego occurred in 1964 (Simons, 1979).

Review of the USGS Earthquake Archives (http://earthquake.usgs. gov/earthquakes/search/) for significant earthquakes within 100 kilometers of the site with magnitudes greater than M5.5 are provided in Table 4.5.3.

TABLE 4.5.3
Regional Earthquake History

EARTHQUAKE DATE (yr-mo-day)	EARTHQUAKE TIME (UTC)	MAGNITUDE	ESTIMATED DEPTH (km)	GENERAL LOCATION
1992-04-23	50:23:29	6.1	11.6	Joshua Tree, north of Cathedral City, CA
1986-07-08	09:20:44	6.0	9.5	Morongo Valley

The site could be subjected to significant shaking in the event of a major earthquake on any of the faults discussed above or other faults in the southern California or northern Baja California area.

4.5.4 Liquefaction and Seismic Settlement Evaluation

Liquefaction occurs when saturated fine-grained sands or silts lose their physical strengths during earthquake-induced shaking and behave like a liquid. This is due to loss of point-to-point grain contact and transfer of normal stress to the pore water. Liquefaction potential varies with water level, soil type, material gradation, relative density, and probable intensity and duration of ground shaking. Seismic settlement occurs when poorly consolidated silts or sands densify during strong ground shaking.

CTE reviewed the “Cone Penetration Testing and Liquefaction Analysis” report issued by Geocon on June 26, 2022. The Cone Penetration Test (CPT) data were also used in CTE’s analysis

Based on field observations and area conditions, high groundwater elevations as shallow as 10 feet bgs were conservatively used for the liquefaction evaluation. Other parameters used for the analysis included a predominant contributing magnitude of 7.72 associated with the Elsinore Fault, and a code-derived site acceleration of 0.582g (PGA_M). A Factor of Safety of 1.3 was used.

Using the computer software CLiq and Geocon's CPT data, quantitative liquefaction and seismic settlement analyses were performed. The evaluation output summaries are attached in Appendix E. Based on the evaluation, localized layers of potentially liquefiable material are present beneath portions of the site underlain by unremoved young alluvium. Estimated seismic settlements ranging from approximately 0.24 inches to 4.80 inches were calculated using CLiq for the CPT's. Estimated seismic settlements for each exploration location are presented in the table below.

TABLE 4.5.4
ESTIMATED SEISMIC SETTLEMENT

BORING	SEISMIC SETTLEMENT (inches)
CPT-1	3.33
CPT-2	3.27
CPT-3	4.80
CPT-4	1.98
CPT-5	2.04
CPT-6	0.40
CPT-7	0.24

Based on the appreciable seismic settlement estimated by the analysis, ground improvement is anticipated to be necessary beneath structures proposed in the affected site areas. Recommendations for ground improvement to support shallow foundations are provided herein, based on the anticipated static and dynamic settlements.

The clayey young alluvial deposits and dense old alluvial deposits are not generally considered susceptible to liquefaction or seismic induced settlement, while the saturated young alluvial materials, confined within the natural drainage channel buried beneath the recently placed fill, are considered susceptible to liquefaction or seismic induced settlement. As such, areas where loose, potentially compressible, saturated young alluvial materials were buried beneath the recently placed fills are considered susceptible to liquefaction and/or seismic induced settlement (refer to Figure 2 for approximate area).

4.5.5 Tsunamis and Seiche Evaluation

The site is located well-inland of the Pacific Ocean and is at an elevation greater than 270 feet above MSL. Therefore, the probability of a tsunami reaching the site is considered remote. Additionally, the site is not located downward or adjacent to significant bodies of water. Therefore, the occurrence of seiches caused by seismic or other factors is considered remote.

4.5.6 Landsliding

The site consists of a graded pad that is bordered on the west by Horse Ranch Creek Road at slightly lower elevation; on the north by Shire Court and existing residential developments at approximately the same elevation; and on the east by a westerly descending granitoid

hillside. Based on the noted site conditions, if proper industry standard site preparation methods are utilized, the potential for slope instability from deep-seated landsliding within the site is generally considered low. Recommendations for offsite rockfall hazard are presented in section 4.5.9.

4.5.7 Compressible and Expansive Soils

The investigation and site development history research indicate that the southeast portion of the site is underlain at moderate- to deep-depths (greater than 50 feet deep) by young alluvium that is potentially compressible in current condition with respect to the anticipated new loading from the proposed development. As such, this area is not considered suitable to receive settlement-sensitive structures without ground improvement and/or deepened foundations. However, the investigation revealed that the western portion of the site is underlain by medium dense to dense previously placed fill and/or medium dense to dense old alluvial deposits that are considered competent to support proposed improvements given the anticipated foundation loads. If updated site layouts are proposed, CTE should be retained for further geotechnical exploration and geotechnical analysis of the site, and mitigation recommendations can be provided, as applicable.

Heaving from expansive soils is a leading cause of damage and damage related claims to structures in the U.S. each year. Clayey soils possess a "sponge-like" hydro-shrink/swell mechanism in which they will expand when provided a water source and will contract when

drying. These shrink/swell mechanisms can cause considerable damage to structures, pavements and/or improvements when not properly treated and/or mitigated, particularly when occurring cyclically.

Laboratory testing was performed on a representative sample of the fill materials to assess the expansion potential characteristics. The test results indicate that these soils possess a Very Low to Low expansion potential. As such, expansive soils are generally not considered to be a constraint for project design and construction. However, it should be understood that expansive soils are known to exist in the site area. CTE should be retained during grading activities to observe, sample, and test any placement of near-surface soils to verify the anticipated low expansion potential conditions.

4.5.8 Corrosive Soils

Testing of representative near surface soil samples was performed to evaluate the potential corrosive effects on concrete foundations and buried metallic utilities (refer to Appendix C for chemical testing results). Soil environments detrimental to concrete generally have elevated levels of soluble sulfates and/or pH levels less than 5.5. According to the American Concrete Institute (ACI) Table 318 4.3.1, specific guidelines have been provided for concrete where concentrations of soluble sulfate (SO_4) in soil exceed 0.10 percent by weight. These guidelines include low water:cement ratios, increased compressive strength, and specific cement type requirements. A minimum resistivity value less than approximately 5,000 ohm-cm and/or soluble chloride levels in excess of 200 ppm generally indicate a corrosive environment for buried metallic utilities and untreated conduits.

Chemical test results indicate that near-surface soils at the site present a negligible corrosion potential for Portland cement concrete. Based on resistivity and chloride testing, site soils have been interpreted to generally have a moderate corrosivity potential to buried metallic improvements. Based on these findings, it may be prudent to utilize plastic piping and conduits where buried and feasible. CTE does not practice corrosion engineering. Therefore, if corrosion of metallic or other improvements is of more significant concern, a qualified corrosion engineer could be consulted.

4.5.9 Rockfall

As indicated, the site is bordered to the east by an off-site, moderately sloping northwesterly descending granitoid hillside. On March 16, 2023 CTE performed a limited rockfall evaluation on-site, which included identifying and accessing four locations along the southern portion of the slope where boulders could potentially detach, and releasing 12- and 13-pound spherical test balls to observe potential distance for boulders to travel down slope. Based on the results of the evaluation, the gradient of the slope and the presence of up to three topographical benches across it precluded significant downslope travel of the balls released during the evaluation. None of the test specimens reached the toe of slope, even after multiple attempts. It is also anticipated that the existing road, drainage, bicycle/horse trail, and fencing will additionally limit the potential for boulders to reach the subject site. CTE also observed large (approximately 12-feet in maximum dimension) boulders, which had previously split off of upslope boulders, that came to rest approximately midslope along the topographic benches and did not reach the toe of slope area.

Isolated near-surface, moderately large and semi-spheroidal boulders were also noted on the slope. The "Revised Response to County of San Diego Review Comments for Rock Fall Potential" prepared by Geocon (2014) identified three boulders/outcrops above the site that they noted as possessing a high potential for movement towards the site. However, based on the Colorado Rockfall Simulation Program (CRSP) that Geocon performed, the boulders at section B-B', which include a high movement potential boulder, did not reach the site. Installation of a rockfall barrier per the design requirements in the Geocon report (2017), would be a sufficient to further mitigate the rockfall hazard along the B-B' section (Geocon, 2014).

Based on our observation of the northern portion of the slope (beyond the B-B' section), along the eastern perimeter the site, the boulders were observed to be relatively deep seated, relatively stable, and unlikely to reach the site due to the reduced topographic relief of the slope.

Based on our field evaluation and document review, the addition of a rockfall barrier will reduce the potential for rockfall hazard to a less than significant level.

5.0 CONCLUSIONS AND CONSIDERATIONS

5.1 General

Based on the investigation findings, the proposed development at the site is considered feasible from a geotechnical standpoint, provided the recommendations in this report are incorporated into the design and construction of the project. Recommendations for the proposed earthwork and

improvements are included in the following sections and Appendix D. However, recommendations in the text of this report supersede those presented in Appendix D, should conflict exist. The recommendations herein may require modifications as project plans evolve further or based on the actual conditions encountered during earthwork and construction.

5.2 Site Preparation and Ground Modification

Prior to grading, the proposed improvement areas should be cleared of existing debris and deleterious materials. Objectionable materials, such as construction debris, vegetation, and other materials not suitable for structural backfill should be properly disposed of off-site. In building areas

where ground improvement is not considered necessary, overexcavation should be performed to a minimum depth of four feet below existing or proposed grades, two feet below the bottom of footings, or to the depth of competent materials, whichever is deeper.

It is anticipated that ground improvement in the form of aggregate piers will be installed to help mitigate potential liquefaction and seismic settlement of young alluvial materials left in place during previous grading (indicated by Qya on Figure 2). Following aggregate pier construction, areas to receive structures or distress-sensitive improvements should be overexcavated to a depth of two feet below proposed subgrades or to competent materials, whichever is greater. If overexcavation is performed to below the depth of proposed footing bottoms, such that aggregate piers beneath footings are disturbed, it will be necessary to deepen footings such that they bear directly onto the tops of undisturbed aggregate piers. Site preparations should extend a minimum 10 feet laterally beyond the improvement limits, where feasible. This preparatory grading is anticipated to be

appropriate for all improvement areas.

Ground modification is anticipated to be performed in the infilled channel area of the site where the young alluvium (Qya on Figure 2) underlies the previously placed fill. In this area (to be further delineated once site layout is confirmed), CTE anticipates it will be suitable to extend aggregate piers a minimum of two feet into the competent underlying Cretaceous materials (Ki on Figure 2). Competent formational material depths or elevations may be estimated based on the cross-sections provided herewith, however actual depths will need to be determined in the field during construction. The approximate locations of the cross-sections provided are shown on Figure 2 and the cross-sections are presented on Figures 2A and 2B. The boring logs provided in Appendix B can also be referenced to further estimate the approximate depths to competent native materials.

Preparation for proposed shallow improvements such as pavement and flatwork should consist of removal to the depth of competent site materials or to a depth of two feet below existing or proposed subgrade, whichever is deepest. Overexcavation should also extend a minimum two feet laterally beyond the improvement limits, where feasible. Subgrade preparation, moisture conditioning, and compaction should be conducted as recommended herein.

Lightly loaded upright structures such as flagpoles and signposts may be designed in accordance with current California Building Code or applicable standards assuming code minimum design values or as per the recommendations provided in this report, where applicable.

5.3 Site Excavation

Based on CTE's observations, shallow excavations at the site should generally be feasible using well-maintained heavy-duty construction equipment run by experienced operators. As indicated, localized groundwater and seepage may affect site excavations and localized caving of cohesionless soils may occur. Deep excavations into dense native materials could potentially require the use of specialized equipment.

5.4 Fill Placement and Compaction

Areas to receive fills should be scarified approximately eight inches, moisture conditioned, and properly compacted. Fill and backfill should be compacted to a minimum relative compaction of 90 percent at above optimum moisture content (three percent above for clayey soils), as evaluated by ASTM D 1557. The optimum lift thickness for fill soil depends on the type of compaction equipment used. Generally, backfill should be placed in uniform, horizontal lifts not exceeding eight inches in loose thickness. Fill placement and compaction should be conducted in conformance with local ordinances and should be observed and tested by a CTE geotechnical representative.

5.5 Fill Materials

Properly moisture-conditioned low expansion potential soils derived from the on-site excavations are considered suitable for reuse on the site as compacted fill. If used, these materials should be screened of organics and materials generally greater than three inches in maximum dimension. Irreducible materials greater than three inches in maximum dimension should generally not be used in shallow fills (within three feet of proposed grades). In utility trenches, adequate bedding should surround pipes.

Imported fill beneath structures, flatwork, and pavements should have an Expansion Index of 20 or less (ASTM D 4829). Proposed import fill soils for use in structural or slope areas should be evaluated by the geotechnical engineer before being transported to the site.

Although this report is not intended to address environmental conditions at the subject site, we anticipate that imported soils will be screened, sampled, and tested in accordance with the Department of Toxic Substances Control's suggested guidelines for clean imported fill soils for public school sites.

If retaining walls are proposed, backfill located within a 45-degree wedge extending up from the heel of the wall should consist of soil having an Expansion Index of 20 or less (ASTM D 4829) with less than 30 percent passing the No. 200 sieve. The upper 12 to 18 inches of wall backfill should consist of lower permeability soils, to reduce surface water infiltration behind walls. The project structural engineer and/or architect should detail proper wall backdrains, including gravel drain zones, fills, filter fabric, and perforated drainpipes. However, a conceptual wall backdrain detail, which may be suitable for use at the site, is provided as Figure 4.

5.6 Temporary Construction Slopes

The following recommended slopes should be relatively stable against deep-seated failure but may experience localized sloughing. On-site soils are considered Type B and Type C soils with recommended slope ratios as set forth in Table 5.6.

TABLE 5.6 RECOMMENDED TEMPORARY SLOPE RATIOS		
SOIL TYPE	SLOPE RATIO (Horizontal: vertical)	MAXIMUM HEIGHT
B (Old Alluvium)	1:1 (OR FLATTER)	10 Feet
C (Previously Placed Fill and Young Alluvium)	1.5:1 (OR FLATTER)	10 Feet

Actual field conditions and soil type designations must be verified by a "competent person" while excavations exist, according to Cal-OSHA regulations. In addition, the above sloping recommendations do not allow for surcharge loading at the top of slopes by vehicular traffic, equipment or materials. Appropriate surcharge setbacks must be maintained from the top of all unshored slopes.

5.7 Foundations and Ground Modification Recommendations

Based on the noted site conditions, CTE anticipates that ground improvement in the form of aggregate piers (SVCs or RAPs, or similar) will be performed. Recommendations for ground improvement are included herein, and foundation and slab recommendations are provided with the understanding that ground improvement will be performed. If ground improvement will not be performed, CTE should be contacted to provide revised recommendations for the unimproved soils. It may generally be considered suitable to support minor isolated or completely detached structures (such as site minor walls, stairwells, stair stringers, stair landings, light posts, etc.) with independent footings or foundations designed using lower geotechnical design parameters; therefore, the design of these improvements should utilize the minimum design parameters allowed by the 2019 CBC.

5.7.1 Spread Foundations Supported on Aggregate Piers

Continuous and isolated spread footings are suitable for use at this site where they will bear entirely upon properly prepared subgrade or subgrade modified with an adequately installed ground improvement system designed by a qualified design/build specialist. Buildings should not straddle areas of ground improvement and unimproved areas. Foundation dimensions and reinforcement can be designed based on an allowable bearing pressure of up to 4,000 pounds per square foot (psf) for foundations bearing entirely on aggregate piers embedded into granitic formation and up to 2,500 psf for foundations bearing entirely within engineered fill. The bottoms of footings supported by improved ground should be embedded a minimum of 24 inches below the shallowest adjacent grade. Higher bearing values may be suitable based on the specific aggregate pier design, spacing, replacement ratio, and construction method. The recommended allowable bearing values may also generally be increased by one third for short duration loading which includes the effects of wind or seismic forces. If elastic design is utilized, a subgrade modulus should be determined by the specialty design/build contractor based on design and/or in field testing.

Detailed plans and specifications for any proposed ground modification system should be developed by the specialty design/build contractor. The plans/specifications should detail verification and/or load testing during construction to assure the system provides intended minimum results. CTE should be provided the plans for review and approval prior to construction. CTE should also observe all installations and verification testing. Depending on specific design/build ground improvement system, CTE may recommend post-ground modification Cone Penetration Testing (CPT) to ensure ground modification/densification

and settlement reduction have been achieved as anticipated.

5.7.1.1 Aggregate Pier Size, Depth, and Spacing

Minimum 20-inch diameter *rammed aggregate piers* (RAPs) should be extended to depths on the order of 35 to 45 feet based on the anticipated subsurface conditions. Piers should also be spaced no more than approximately seven feet, on center, depending on the specific pier type and installation method. Post-installation evaluation should be performed to ensure aggregate pier size, depth, and spacing are achieving the desired ground improvement, bearing capacity, soil stiffness, and liquefaction reduction.

Minimum 36-inch diameter *vibratory installed aggregate/stone columns* (VSCs) should be extended to depths on the order of 35 to 45 feet based on the anticipated conditions. In general, piers should also be spaced approximately not more than nine feet, on center, depending on the specific pier type and installation method. Post-installation evaluation should be performed to ensure aggregate pier size, depth, and spacing are achieving the desired ground improvement, bearing capacity, soil stiffness, and liquefaction reduction.

For both RAPs and SVCs, minimum diameters and maximum spacing recommended herein may be modified based on consultation with the specialty ground modification contractor, considering their typical means and methods, and in consultation with the structural engineer of record if higher bearing capacities are needed.

5.7.1.2 Foundation Settlement

Minimum footing reinforcement for all footings should be as per the project structural engineer. Should properly designed aggregate piers be installed, the maximum total static settlement is expected to be on the order of 2.0 inches and the maximum differential static settlement is expected to be on the order of 1.0 inches over a horizontal distance of 50 feet. CTE anticipates a properly designed and installed ground improvement system to be capable of reducing the maximum potential seismically induced total and differential settlement to approximately 2.0 inches and 1.0 inch, respectively.

5.7.1.3 Foundation Setback

Footings for structures should be designed such that the horizontal distance from the face of adjacent slopes to the outer edge of the footing is at least 15 feet. In addition, footings should bear beneath an imaginary 1:1 plane extended up from the nearest bottom edge of adjacent trenches and/or excavations. Footings may generally be deepened in order to meet this recommendation.

5.7.2 Slabs on Grade

Lightly loaded concrete slabs for non-traffic areas should be a minimum of 5.0 inches thick. Minimum slab reinforcement should consist of No. 4 reinforcing bars placed on maximum 18-inch centers, each way, at or above mid-slab height, but with proper cover. More stringent recommendations per the project structural engineer supersede these recommendations, as applicable.

In moisture-sensitive floor areas, a suitable vapor retarder of at least 15-mil thickness (with all laps or penetrations sealed or taped) overlying a four-inch layer of consolidated aggregate base or gravel (or sand with SE of 30 or more) should be installed. An optional maximum two-inch layer of similar material may be placed above the vapor retarder to help protect the membrane during steel and concrete placement. This recommended protection is generally considered typical in the industry. If proposed floor areas or coverings are considered especially sensitive to moisture emissions, additional recommendations from a specialty consultant could be obtained. CTE is not an expert at preventing moisture penetration through slabs. A qualified architect or other experienced professional should be contacted if moisture penetration is a more significant concern.

Slabs subjected to heavier loads or traffic will require thicker slab sections and/or increased reinforcement. A 115-pci subgrade modulus is considered suitable for elastic design of minimally embedded improvements such as slabs-on-grade.

Subgrade materials should be maintained or brought to a minimum of two percent (three percent for clayey materials) or greater above optimum moisture content until slab underlayment and concrete are placed.

5.8 Seismic Design Criteria

The seismic ground motion values listed in the table below were derived in accordance with the ASCE 7-16 Standard that is incorporated into the 2019 California Building Code. This was

accomplished by establishing the Site Class based on the soil properties at the site and calculating site coefficients and parameters using the using the SEAOC-OSHPD U.S. Seismic Design Maps application. Seismic ground motion values are based on the approximate site coordinates of 33.3441° latitude and -117.1495° longitude. These values are intended for the design of structures to resist the effects of earthquake ground motions. Ground motion values presented herein are based on the anticipated adequately designed and installed ground improvement system to minimize the localized liquefaction (collapse) potential and densify subsurface material beneath and immediately surrounding the proposed improvements.

TABLE 5.8
SEISMIC GROUND MOTION VALUES (CODE-BASED)
2019 CBC AND ASCE 7-16

PARAMETER	VALUE	2019 CBC/ASCE 7-16 REFERENCE
Site Class	D	ASCE 16, Chapter 20
Mapped Spectral Response Acceleration Parameter, S_S	1.116	Figure 1613.2.1 (1)
Mapped Spectral Response Acceleration Parameter, S_1	0.404	Figure 1613.2.1 (2)
Seismic Coefficient, F_a	1.053	Table 1613.2.3 (1)
Seismic Coefficient, F_v	Null*	Table 1613.2.3 (2)
MCE Spectral Response Acceleration Parameter, S_{MS}	1.176	Section 1613.2.3
MCE Spectral Response Acceleration Parameter, S_{M1}	Null*	Section 1613.2.3
Design Spectral Response Acceleration, Parameter S_{DS}	0.784	Section 1613.2.5(1)
Design Spectral Response Acceleration, Parameter S_{D1}	Null*	Section 1613.2.5 (2)
Peak Ground Acceleration PGA_M	0.541	ASCE 16, Section 11.8.3

*(refer to ACSE 7-16 Section11.4.8)

The code-based seismic parameters provided above are considered to be acceptable, and a ground motion hazard analysis is not required, provided that the provisions of Exception 2 in ASCE/SEI 7-16, Section 11.4.8, are applied in structural design.

5.9 Lateral Resistance and Earth Pressures

Lateral loads acting against structures may be resisted by friction between the footings and the supporting soil or passive pressure acting against structures. If frictional resistance is used, allowable coefficients of friction of 0.30 (total frictional resistance equals the coefficient of friction multiplied by the dead load) for concrete cast directly against compacted fill or native material is recommended. A design passive resistance value of 250 pounds per square foot per foot of depth (with a maximum value of 2,000 pounds per square foot) may be used. The allowable lateral resistance can be taken as the sum of the frictional resistance and the passive resistance, provided the passive resistance does not exceed two-thirds of the total allowable resistance.

If proposed, retaining walls backfilled using approved granular soils may be designed using the equivalent fluid unit weights given in Table 5.9 below.

TABLE 5.9
EQUIVALENT FLUID UNIT WEIGHTS (G_h)
(pounds per cubic foot)

WALL TYPE	LEVEL BACKFILL	SLOPE BACKFILL 2:1 (HORIZONTAL: VERTICAL)
CANTILEVER WALL (YIELDING)	45	65
RESTRAINED WALL	60	85

Lateral pressures on cantilever retaining walls (yielding walls) over six feet high due to earthquake motions may be calculated based on work by Seed and Whitman (1970). The total lateral earth pressure against a properly drained and backfilled cantilever retaining wall above the groundwater level can be expressed as:

$$P_{AE} = P_A + \Delta P_{AE}$$

For non-yielding (or "restrained") walls, the total lateral earth pressure may be similarly calculated based on work by Wood (1973):

$$P_{KE} = P_K + \Delta P_{KE}$$

Where P_A/b = Static Active Earth Pressure = $G_h H^2/2$

P_K/b = Static Restrained Wall Earth Pressure = $G_h H^2/2$

$\Delta P_{AE}/b$ = Dynamic Active Earth Pressure Increment = $(3/8)\ k_h\ \gamma H^2$

$\Delta P_{KE}/b$ = Dynamic Restrained Earth Pressure Increment = $k_h\ \gamma H^2$

b = unit length of wall (usually 1 foot)

k_h = 1/2* PGA_m (PGA_m given previously Table 5.8)

G_h = Equivalent Fluid Unit Weight (given previously Table 5.9)

H = Total Height of the retained soil

γ = Total Unit Weight of Soil ≈ 135 pounds per cubic foot

*It is anticipated that the 1/2 reduction factor will be appropriate for proposed walls that are not substantially sensitive to movement during the design seismic event. Proposed walls that are more sensitive to such movement could utilize a 2/3 reduction factor. If any proposed walls require minimal to no movement during the design seismic event, no reduction factor to the peak ground acceleration should be used. The project structural engineer of record should determine the appropriate reduction factor to use (if any) based on the specific proposed wall characteristics.

The static and increment of dynamic earth pressure in both cases may be applied with a line of action located at H/3 above the bottom of the wall (SEAOC, 2013). These values assume non-expansive backfill and free-draining conditions. Measures should be taken to prevent moisture buildup behind all retaining walls. Drainage measures should include free-draining backfill materials and sloped, perforated drains. These drains should discharge to an appropriate off-site location. Waterproofing should be as specified by the project architect.

5.10 Exterior Flatwork

Lightly loaded flatwork not subject to traffic loading should be installed with crack-control joints at appropriate spacing as designed by the project architect to reduce the potential for cracking in exterior flatwork caused by minor movement of subgrade soils and concrete shrinkage. Additionally, it is recommended that flatwork be installed with at least number 4 reinforcing bars at 18-inch centers, each way, at or above mid-height of slab, but with proper concrete cover, or with other reinforcement per the applicable project designer. Flatwork that should be installed with crack control joints, includes sidewalks, and architectural features. All subgrades should be prepared according to the earthwork recommendations previously given before placing concrete. Positive drainage should be established and maintained next to all flatwork. Subgrade materials should be maintained at a minimum of two percent (three percent for clayey materials) above optimum moisture content until the time of concrete placement.

5.11 Vehicular Pavements and Site Improvements

Presented in Table 5.11 are recommended pavement sections for asphaltic concrete pavements supported by aggregate base and full-depth concrete pavements. Please note that these pavement sections may not be acceptable for county or public street repair or improvements. The preliminary pavement sections presented are based on the estimated traffic indices and estimated resistance "R"-Value (CTE can provide pavement sections for additional traffic indexes if provided by the civil engineer). The upper 12 inches of subgrade and all base materials should be compacted to 95% relative compaction at a minimum two percent (three percent for clayey soils) above optimum moisture content. After grading required to reach subgrade, CTE recommends testing at-grade soils

for their Resistance "R"-value. This testing may enable CTE to provide modified pavement recommendations.

TABLE 5.11
RECOMMENDED PAVEMENT THICKNESS

Traffic Area	Assumed Traffic Index	Preliminary Subgrade "R"-Value	Option 1: Asphalt Pavements		Option 2: Full-Depth Concrete ** Pavements (inches)
			AC Thickness (inches)	Class 2 * Aggregate Base Thickness (inches)	
Drive Areas (Including Periodic Use Fire Lanes)	7.0	5+	4.0	16.0	7.5
Drive Areas	5.5	5+	3.0	12.0	7.0
Parking Areas	4.0	5+	3.0	7.0	6.5

* Caltrans class 2 aggregate base
** Modulus of rupture of at least 600 psi

For concrete pavements, the recommended concrete pavement sections may be reduced by one inch if placed upon a minimum six inches of Class 2 aggregate base materials.

The use of a properly placed/installed layer of Tensar TX-160, high-strength geogrid beneath proposed Asphalt Concrete pavement sections would generally reduce the above corresponding recommended aggregate base thickness by two (2.0) inches, so long as a minimum aggregate base thickness of four (4.0) inches is maintained.

Experience performing subgrade preparations for roadways in the site vicinity indicates that clayey materials with high water/moisture contents may be encountered. While it is the contractor's responsibility to perform the work using appropriate equipment, means, and methods, it is generally recommended that static or non-vibratory compaction equipment be used in order to minimize the potential of overworking fine grained materials or drawing of subsurface water to the work area

5.12 Drainage

Surface runoff should be collected and directed away from improvements by means of appropriate erosion-reducing devices and positive drainage should be established around the proposed improvements. Positive drainage should be directed away from improvements at a gradient of at least two percent for a distance of at least five feet. However, the project civil engineers should evaluate the on-site drainage and make necessary provisions to keep surface water from affecting the site.

Generally, CTE recommends against allowing water to infiltrate building pads or adjacent to slopes. CTE understands that some agencies are encouraging the use of storm-water cleansing devices. Use of such devices tends to increase the possibility of adverse effects associated with high groundwater including slope instability and liquefaction.

5.13 Slopes

Based on observed conditions and soil strength characteristics, cut and fill slopes, if proposed at the site, should be constructed at ratios of 2:1 (horizontal: vertical) or flatter. These fill slope inclinations should exhibit factors of safety greater than 1.5.

Although properly constructed slopes on this site should be grossly stable, the soils will be somewhat erodible. Therefore, runoff water should not be permitted to drain over the edges of slopes unless that water is confined to properly designed and constructed drainage facilities. Erosion-resistant vegetation should be maintained on the face of all slopes. Typically, soils along the top portion of a fill slope face will creep laterally. CTE recommends against building distress-sensitive hardscape improvements within five feet of fill slope crests.

5.14 Controlled Low Strength Materials (CLSM)

Where approved, controlled Low Strength Materials (CLSM) may be used in lieu of compacted soils below foundations, within building pads, and/or adjacent to retaining walls or other structures, provided the appropriate following recommendations are also incorporated. Minimum overexcavation depths recommended herein beneath bottom of footings, slabs, flatwork, and other areas may be applicable beneath CLSM if/where CLSM is to be used, and excavation bottoms should be observed by CTE prior to placement of CLSM. Prior to CLSM placement, the excavation should be free of debris, loose soil materials, and water. Once specific areas to utilize CLSM have been determined, CTE should review the locations to determine if additional recommendations are appropriate.

CLSM should consist of a minimum three-sack cement/sand slurry with a minimum 28-day compressive strength of 100 psi (or equal to or greater than the maximum allowable short term soil bearing pressure provided herein, whichever is higher) as determined by ASTM D4832. If re-excavation is anticipated, the compressive strength of CLSM should generally be limited to a maximum of 150 psi per ACI 229R-99. Where re-excavation is required, two-sack cement/sand

slurry may be used to help limit the compressive strength. The allowable soils bearing pressure and coefficient of friction provided herein should still govern foundation design. CLSM may not be used in lieu of structural concrete where required by the structural engineer.

5.15 Plan Review

CTE should be authorized to review the project grading and foundation plans prior to commencement of earthwork in order to provide additional recommendations, if necessary.

5.16 Construction Observation

The recommendations provided in this report are based on preliminary design information for the proposed construction and the subsurface conditions observed in the soil borings. The interpolated subsurface conditions should be checked by CTE during construction with respect to anticipated conditions. Upon completion of precise grading, if necessary, soil samples will be collected to evaluate as-built Expansion Index. Foundation recommendations may be revised upon completion of grading, and as-built laboratory tests results. Additionally, soil samples should be taken in pavement subgrade areas upon rough grading to refine pavement recommendations as necessary.

6.0 LIMITATIONS OF INVESTIGATION

The preliminary field evaluation, laboratory testing, and geotechnical analysis presented in this report have been conducted according to current engineering practice and the standard of care exercised by reputable geotechnical consultants performing similar tasks in this area. No other warranty, expressed or implied, is made regarding the preliminary conclusions and opinions

expressed in this report. Variations may exist and conditions not observed or described in this report may be encountered during construction. This report is prepared for the project as described. It is not prepared for any other property or party.

The preliminary recommendations provided herein have been developed in order to reduce the post-construction movement of site improvements related to soil settlement and expansion. However, even with the design and construction recommendations presented herein, some post-construction movement and associated distress may occur.

The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside CTE's involvement. Therefore, this report is subject to review and should not be relied upon after a period of three years.

CTE's preliminary conclusions and recommendations are based on an analysis of the observed conditions in explored areas. If conditions different from those described in this report are encountered, CTE should be notified and additional recommendations, if required, will be provided subject to CTE remaining as authorized geotechnical consultant of record. This report is for use of the project as described. It should not be utilized for any other project.

CTE appreciates this opportunity to be of service on this project. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Respectfully submitted,
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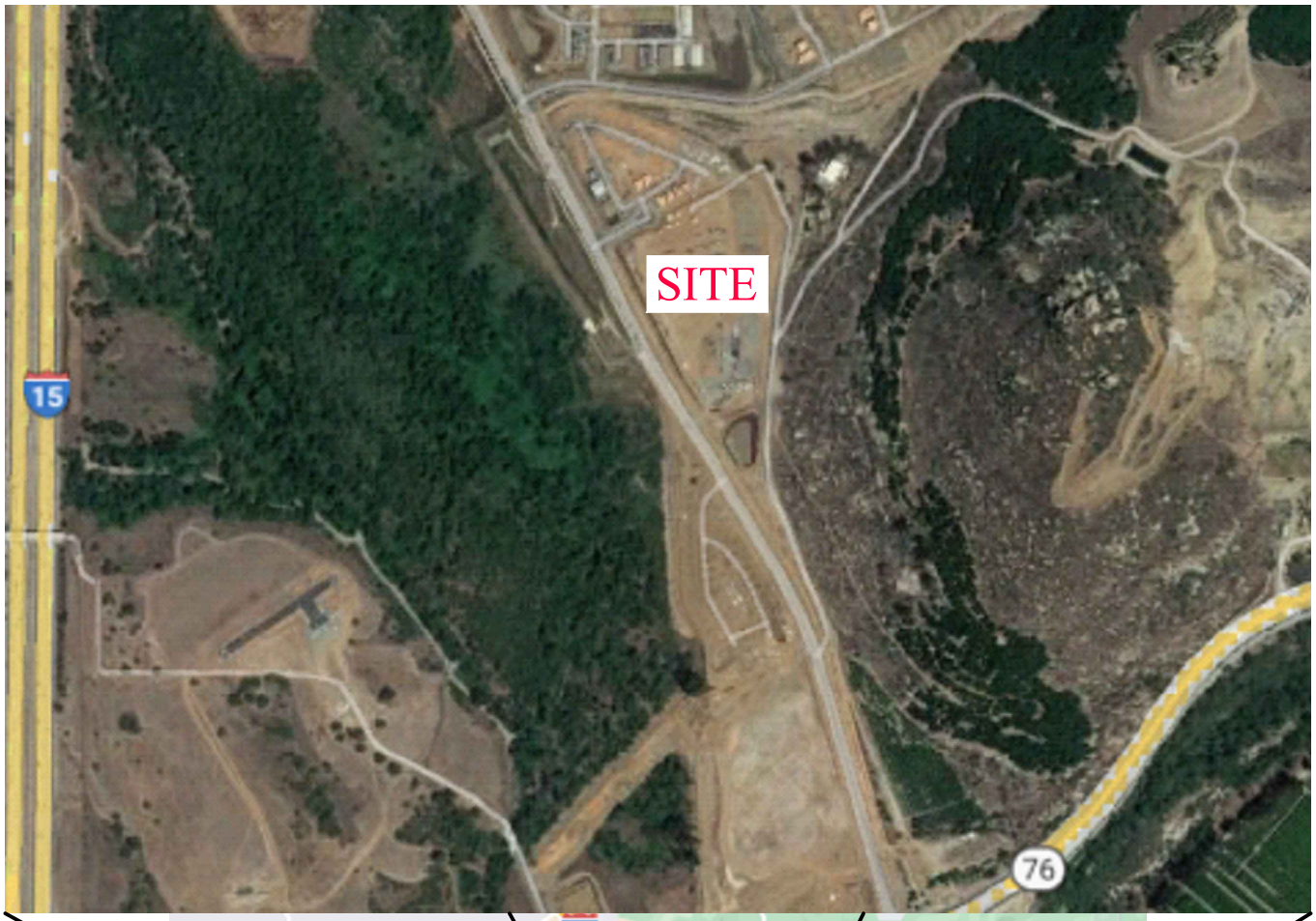
Jay F. Lynch, CEG #1890
Principal Engineering Geologist

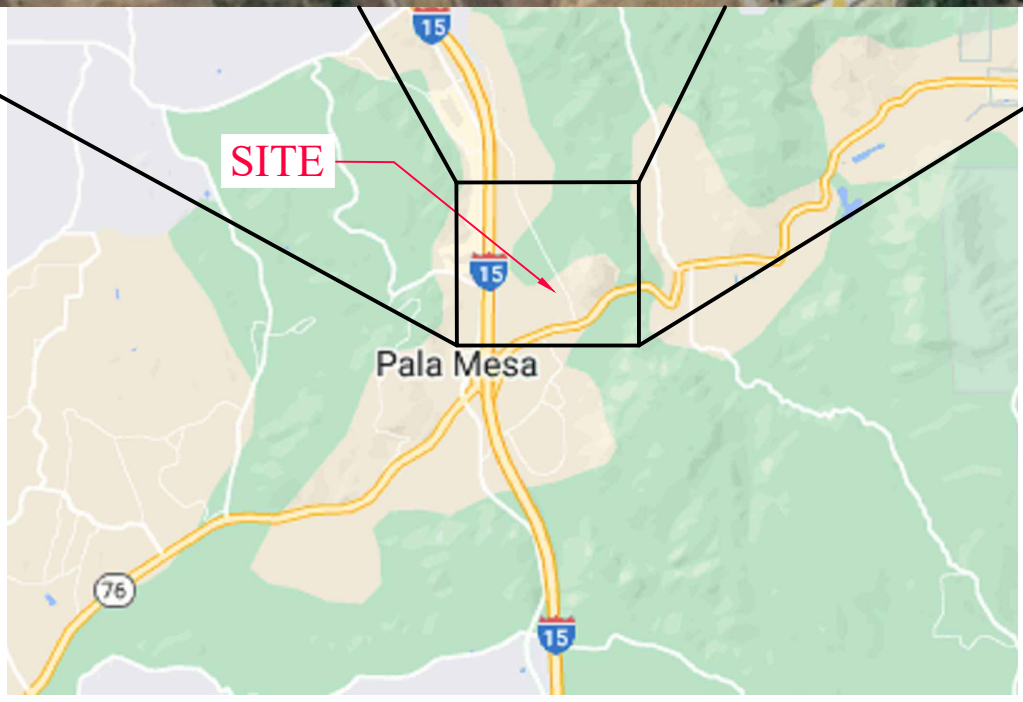
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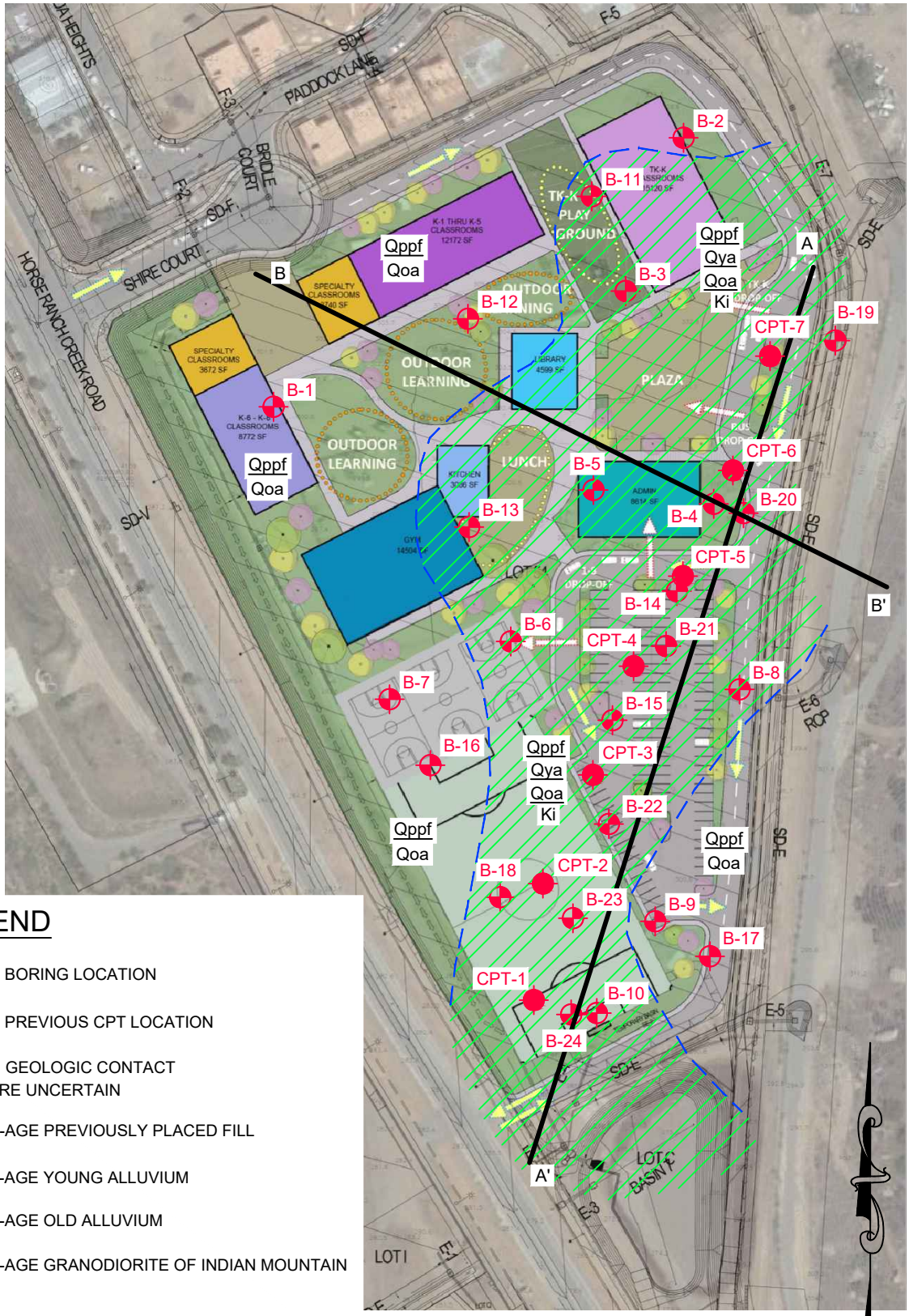
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SITE INDEX MAP

POTENTIAL NEW SCHOOL SITE – BUESD
SE CORNER OF HORSE RANCH CREEK RD. AND SHIRE CT.
FALLBROOK, CALIFORNIA

SCALE:	DATE:
AS SHOWN	10/22
CTE JOB NO.:	FIGURE:
10-16564G	1



LEGEND

B-24 ⊕	APPROXIMATE BORING LOCATION
CPT-7 ⊕	APPROXIMATE PREVIOUS CPT LOCATION
– – ? – –	APPROXIMATE GEOLOGIC CONTACT QUERIED WHERE UNCERTAIN
Qppf	QUATERNARY-AGE PREVIOUSLY PLACED FILL
Qya	QUATERNARY-AGE YOUNG ALLUVIUM
Qoa	QUATERNARY-AGE OLD ALLUVIUM
Ki	CRETACEOUS-AGE GRANODIORITE OF INDIAN MOUNTAIN
▨	AREA OF ANTICIPATED GROUND IMPROVEMENTS

GRAPHIC SCALE

150' 0 75' 150' 300'

1 inch = 150'ft.

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EXPLORATION LOCATION MAP

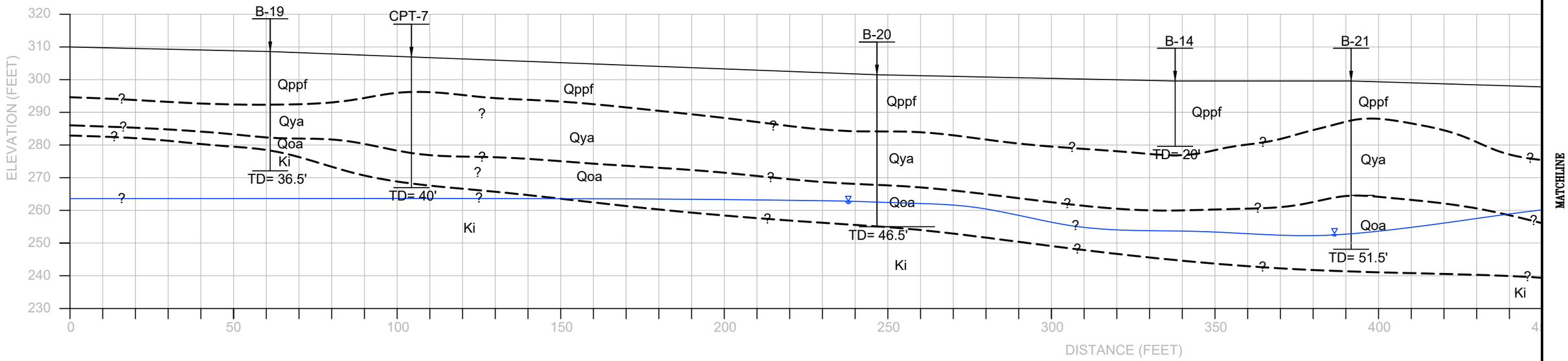
POTENTIAL NEW SCHOOL SITE – BUESD
SE CORNER OF HORSE RANCH CREEK RD. AND SHIRE CT.
FALLBROOK, CALIFORNIA

SCALE:	DATE:
1" = 150'	10/22
CTE JOB NO.: 10-16564G	FIGURE: 2

\\file01.cte.cte-inc.net\CTE Share\Projects\10-16564G (BUESD New School)\DWG\Figure 2 Geologic Exploration Map.dwg

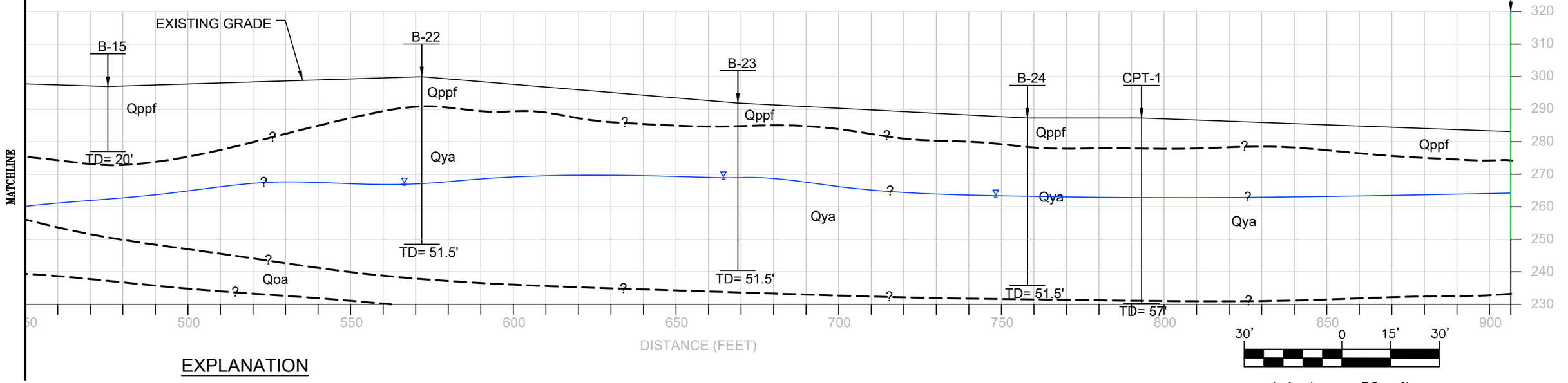
AREA OF ANTICIPATED GROUND IMPROVEMENTS

A



AREA OF ANTICIPATED GROUND IMPROVEMENTS

A'



30' 0 15' 30'

1 inch = 30 ft.

EXPLANATION

SEE FIGURE 2B

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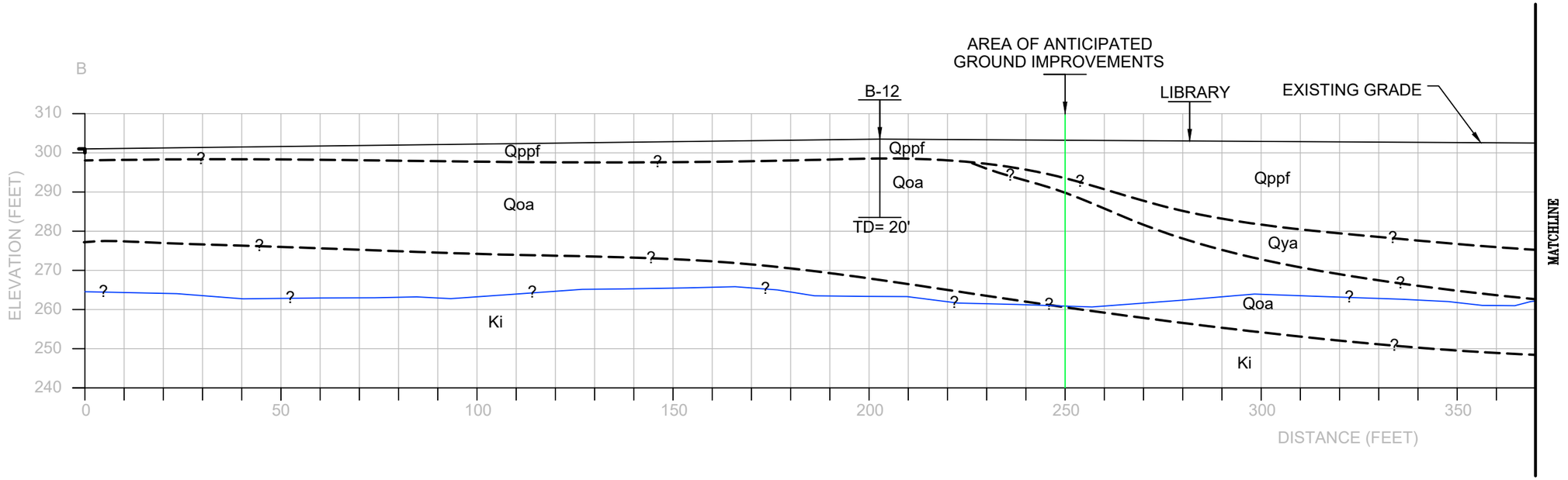
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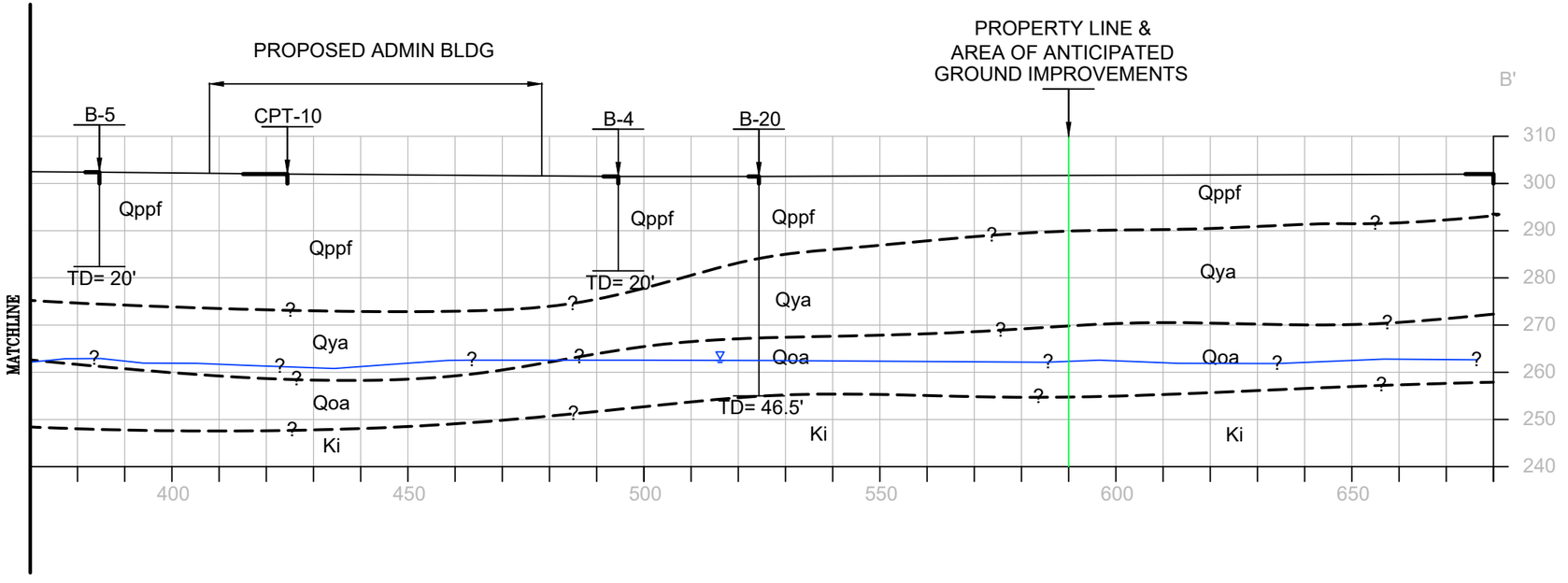
GEOLOGIC CROSS SECTION A–A'

POTENTIAL NEW SCHOOL SITE – BUESD
SE CORNER OF HORSE RANCH CREEK RD. AND SHIRE CT.
FALLBROOK, CALIFORNIA

CTE JOB NO:	10-16564G
SCALE:	1" = 30'
DATE:	10/22
FIGURE:	2A

S:\Projects\10-16564G (BUESD New School)\DWG\Figure 2, 2A, & 2B.dwg





EXPLANATION

B-24	APPROXIMATE BORING LOCATION
CPT-7	APPROXIMATE PREVIOUS CPT LOCATION
?	APPROXIMATE GEOLOGIC CONTACT QUERIED WHERE UNCERTAIN
Qppf	QUATERNARY-AGE PREVIOUSLY PLACED FILL
Qya	QUATERNARY-AGE YOUNG ALLUVIUM
Qoa	QUATERNARY-AGE OLD ALLUVIUM
Ki	CRETACEOUS-AGE GRANODIORITE OF INDIAN MOUNTAIN
▽	APPROXIMATE GROUND WATER ELEVATION

30' 0 15' 30'

1 inch = 30 ft.

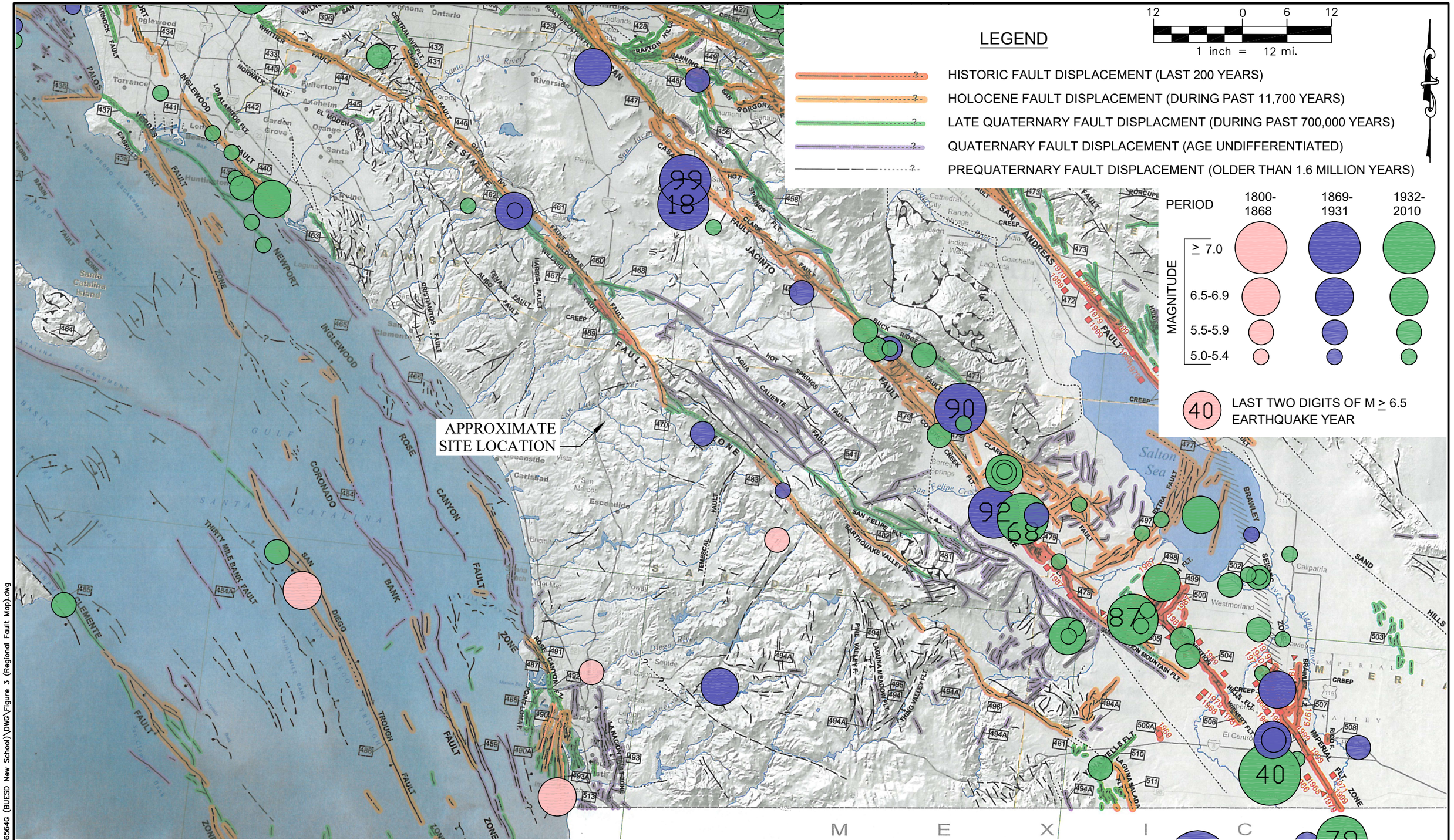
S:\Projects\10-16564G (BUESD New School)\DWG\Figure 2, 2A, & 2B.dwg

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GEOLOGIC CROSS SECTION B–B'

POTENTIAL NEW SCHOOL SITE – BUESD
SE CORNER OF HORSE RANCH CREEK RD. AND SHIRE CT.
FALLBROOK, CALIFORNIA

CTE JOB NO:	10-16564G
SCALE:	1" = 30'
DATE:	10/22
FIGURE:	2B



NOTES: FAULT ACTIVITY MAP OF CALIFORNIA, 2010, CALIFORNIA GEOLOGIC DATA MAP SERIES MAP NO. 6;
EPICENTERS OF AND AREAS DAMAGED BY M≥5 CALIFORNIA EARTHQUAKES, 1800–1999 ADAPTED AFTER TOPPOZADA, BRANUM, PETERSEN, HALLSTORM, CRAMER, AND REICHLE, 2000, CDMG MAP SHEET 49
REFERENCE FOR ADDITIONAL EXPLANATION; MODIFIED WITH CISN AND USGS SEISMIC MAPS

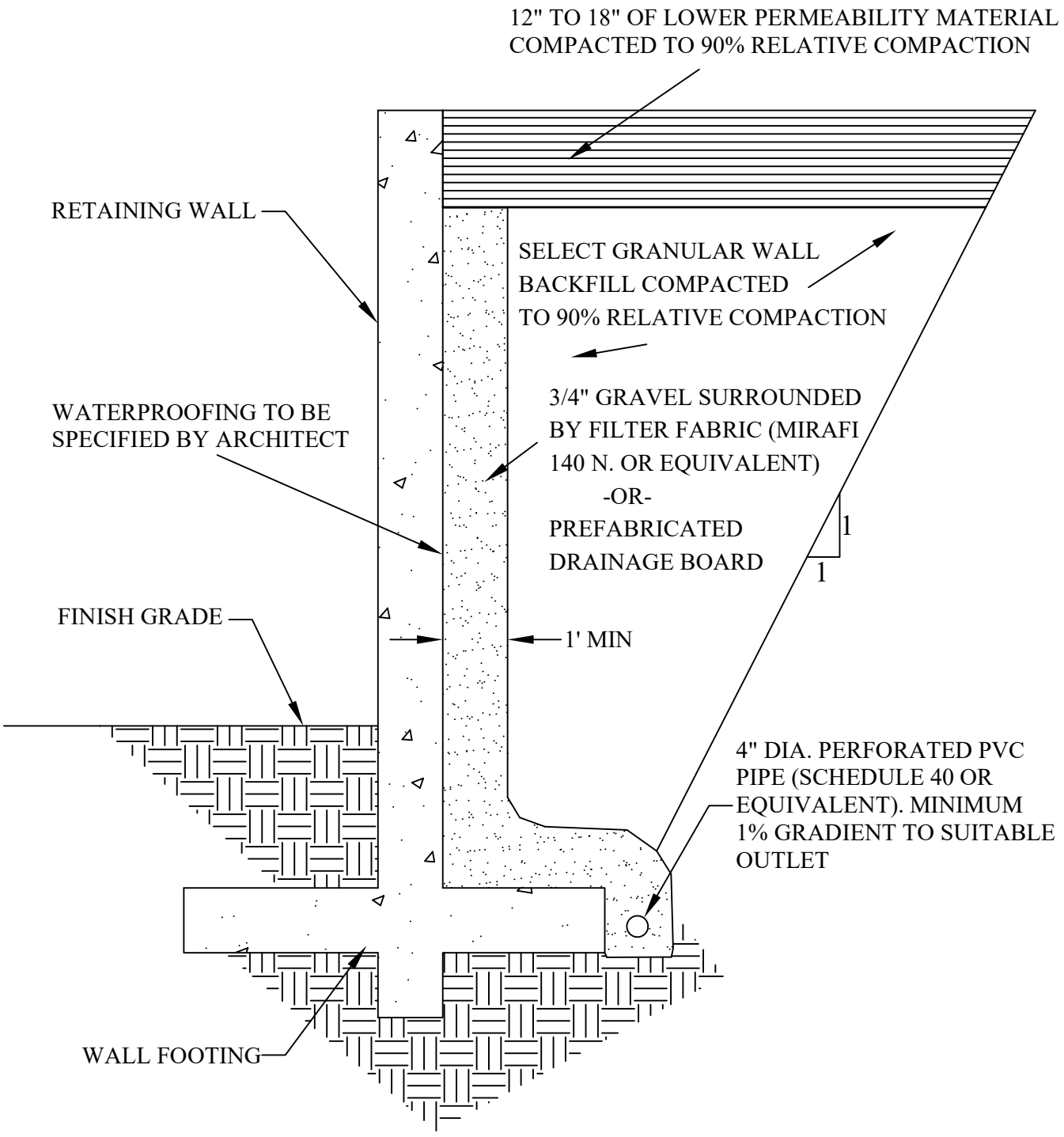
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REGIONAL FAULT AND SEISMICITY MAP

POTENTIAL SCHOOL SITE – BUESD
SE CORNER OF HORSE RANCH CREEK RD. AND SHIRE CT.
FALLBROOK, CALIFORNIA

CTE JOB NO:	10-16564G
SCALE:	1 inch = 12 miles
DATE:	10/22
FIGURE:	3

S:\Projects\10-16564G (BUESD New School)\DWG\Figure 3 (Regional Fault Map).dwg



*CONCEPTUAL DRAWING

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RETAINING WALL DRAINAGE DETAIL

SCALE:	DATE:
NO SCALE	10/22
CTE JOB NO.: 10-16564G	FIGURE: 4

APPENDIX A

REFERENCES

REFERENCES

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APPENDIX B

EXPLORATION LOGS

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DEFINITION OF TERMS

PRIMARY DIVISIONS			SYMBOLS	SECONDARY DIVISIONS
COARSE GRAINED SOILS MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVELS MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS < 5% FINES	GW	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES LITTLE OR NO FINES
			GP	POORLY GRADED GRAVELS OR GRAVEL SAND MIXTURES, LITTLE OF NO FINES
		GRAVELS WITH FINES	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES, NON-PLASTIC FINES
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES, PLASTIC FINES
	SANDS MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS < 5% FINES	SW	WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES	SM	SILTY SANDS, SAND-SILT MIXTURES, NON-PLASTIC FINES
			SC	CLAYEY SANDS, SAND-CLAY MIXTURES, PLASTIC FINES
FINE GRAINED SOILS MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT IS LESS THAN 50		ML	INORGANIC SILTS, VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, SLIGHTLY PLASTIC CLAYEY SILTS
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY, SANDY, SILTS OR LEAN CLAYS
			OL	ORGANIC SILTS AND ORGANIC CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT IS GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTY CLAYS
HIGHLY ORGANIC SOILS			PT	PEAT AND OTHER HIGHLY ORGANIC SOILS

GRAIN SIZES

BOULDERS	COBBLES	GRAVEL		SAND			SILTS AND CLAYS
		COARSE	FINE	COARSE	MEDIUM	FINE	

12" 3" 3/4" 4 10 40 200

CLEAR SQUARE SIEVE OPENING U.S. STANDARD SIEVE SIZE

ADDITIONAL TESTS

(OTHER THAN TEST PIT AND BORING LOG COLUMN HEADINGS)

MAX- Maximum Dry Density
GS- Grain Size Distribution
SE- Sand Equivalent
EI- Expansion Index
CHM- Sulfate and Chloride Content , pH, Resistivity
COR - Corrosivity
SD- Sample Disturbed
PM- Permeability
SG- Specific Gravity
HA- Hydrometer Analysis
AL- Atterberg Limits
RV- R-Value
CN- Consolidation
CP- Collapse Potential
HC- Hydrocollapse
REM- Remolded
PP- Pocket Penetrometer
WA- Wash Analysis
DS- Direct Shear
UC- Unconfined Compression
MD- Moisture/Density
M- Moisture
SC- Swell Compression
OI- Organic Impurities

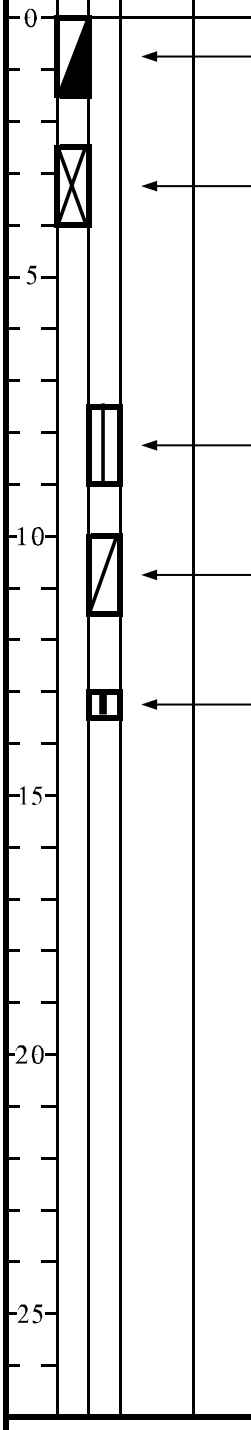
FIGURE: BL1

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PROJECT:	DRILLER:	SHEET: of
CTE JOB NO:	DRILL METHOD:	DRILLING DATE:
LOGGED BY:	SAMPLE METHOD:	ELEVATION:

BORING LEGEND

Depth (Feet) | Bulk Sample | Driven Type | Blows/Foot | Dry Density (pcf) | Moisture (%) | U.S.C.S. Symbol | Graphic Log | DESCRIPTION | Laboratory Tests



Block or Chunk Sample

Bulk Sample

Standard Penetration Test

Modified Split-Barrel Drive Sampler (Cal Sampler)

Thin Walled Army Corp. of Engineers Sample

Groundwater Table

Soil Type or Classification Change

? ? ? ? ? ? ?

Formation Change [(Approximate boundaries queried (?)]

"SM"

Quotes are placed around classifications where the soils exist in situ as bedrock

FIGURE: BL2

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 1
CTE JOB NO:	10-16564G	DRILLING METHOD:	8" Hollow Stem Auger	DRILLING DATE:	4/26/2022
LOGGED BY:	DD	SAMPLE METHOD:	Bulk and SPT	ELEVATION:	Existing Pad

BORING LOG: B-1

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC		**QUATERNARY-AGE OLD ALLUVIUM (Qoa):** Medium dense to dense, slightly moist, brown, fine- to medium-grained, Clayey SAND (SC).	
3			11 14 17						
5								--Becomes reddish brown at and below 5 feet bgs.	
6			7 11 14						
9			9 12 15						
12								--Becomes dark brown at and below 12.5 feet bgs.	
14			14 15 16						
19			12 11 17						
20								Excavation terminated at 20 ft bgs. (non-refusal) Groundwater not encountered. Backfilled with spoils on 4-26-2022.	

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 1
CTE JOB NO:	10-16564G	DRILLING METHOD:	8" Hollow Stem Auger	DRILLING DATE:	4/26/2022
LOGGED BY:	DD	SAMPLE METHOD:	Bulk and SPT	ELEVATION:	Existing Pad

BORING LOG: B-2

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense to dense, slightly moist, brown, fine- to medium-grained, Clayey SAND (SC).	EI, GS, CHM
3			11 13 18					--Becomes reddish brown at and below 4 feet bgs.	
6			8 11 11						
9			9 12 10						
14			7 8 10						
16						SC		**QUATERNARY-AGE OLD ALLUVIUM (Qoa):** Dense, slightly moist, brown, fine- to medium-grained, Clayey SAND (SC).	
19			8 13 30						
20								Excavation terminated at 20 ft bgs. (non-refusal) Groundwater not encountered. Backfilled with spoils on 4-26-2022.	

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 1
CTE JOB NO:	10-16564G	DRILLING METHOD:	8" Hollow Stem Auger	DRILLING DATE:	4/26/2022
LOGGED BY:	DD	SAMPLE METHOD:	Bulk and SPT	ELEVATION:	Existing Pad

BORING LOG: B-3

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense to dense, slightly moist, brown, fine- to medium-grained, Clayey SAND (SC).	
3			6 8 10					--Becomes dark gray to black with some organic material present.	
6			5 10 12						
9			11 11 9					-- Some roots present.	
12								-- Becomes brown at and below 12 feet bgs.	
14			17 17 14						
17						SM		-- Becomes dense, slightly moist, light brown and gray, fine- to coarse-grained Silty SAND (SM) with some gravel.	
19			16 16 15						
20								Excavation terminated at 20 ft bgs. (non-refusal) Groundwater not encountered. Backfilled with spoils on 4-26-2022.	

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 1
CTE JOB NO:	10-16564G	DRILLING METHOD:	8" Hollow Stem Auger	DRILLING DATE:	4/26/2022
LOGGED BY:	DD	SAMPLE METHOD:	Bulk and SPT	ELEVATION:	Existing Pad

BORING LOG: B-4

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense to dense, slightly moist, brown, fine- to medium-grained, Clayey SAND (SC).	
3			11 18 23					-- Becomes black with some organics and roots present.	
6			14 15 19						
8								-- Becomes fine- to coarse-grained at and below 8 feet bgs.	
9			13 17 20						
14			15 10 14						
19			11 13 13						
20								Excavation terminated at 20 ft bgs. (non-refusal) Groundwater not encountered. Backfilled with spoils on 4-26-2022.	

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 1
CTE JOB NO:	10-16564G	DRILLING METHOD:	8" Hollow Stem Auger	DRILLING DATE:	4/26/2022
LOGGED BY:	DD	SAMPLE METHOD:	Bulk and SPT	ELEVATION:	Existing Pad

BORING LOG: B-5

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense, slightly moist, brown, fine- to medium-grained, Clayey SAND (SC).	EI, GS, CHM
1									
2									
3			7						
4			7						
5			8						
6			13					--Becoms dense.	
7			18						
8			14					--Becomes medium dense and finer-grained at and below 9 ft bgs.	
9			10						
10			11						
11			13						
12									
13									
14			7						
15			11						
16			14						
17								--Becomes dark brown to black with some organics and roots present.	
18									
19			8						
20			7						
21			10					Excavation terminated at 20 ft bgs. (non-refusal)	
22								Groundwater not encountered.	
23								Backfilled with spoils on 4-26-2022.	
24									
25									
26									

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 1
CTE JOB NO:	10-16564G	DRILLING METHOD:	8" Hollow Stem Auger	DRILLING DATE:	4/26/2022
LOGGED BY:	DD	SAMPLE METHOD:	Bulk and SPT	ELEVATION:	Existing Pad

BORING LOG: B-6

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense to dense, slightly moist, brown, fine- to medium-grained, Clayey SAND (SC).	
3			12 19 20						
6			12 15 16						
9			11 14 19						
14			15 18 20					--Becomes medium dense and finer-grained at and below 17 ft bgs.	
19			7 8 14						
20								Excavation terminated at 20 ft bgs. (non-refusal) Groundwater not encountered. Backfilled with spoils on 4-26-2022.	

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 1
CTE JOB NO:	10-16564G	DRILLING METHOD:	8" Hollow Stem Auger	DRILLING DATE:	4/26/2022
LOGGED BY:	DD	SAMPLE METHOD:	Bulk and SPT	ELEVATION:	Existing Pad

BORING LOG: B-7

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense, slightly moist, brown, fine- to medium-grained, Clayey SAND (SC).	
3			4 4 7						
6			7 7 7						
9			10 11 14						
12						SC		**QUATERNARY-AGE OLD ALLUVIUM (Qoa):** Dense, slightly moist, red-brown, fine- to medium-grained, Clayey SAND (SC).	
14			9 11 25						
19			14 21 39						
20								Excavation terminated at 20 ft bgs. (non-refusal) Groundwater not encountered. Backfilled with spoils on 4-26-2022.	

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 1
CTE JOB NO:	10-16564G	DRILLING METHOD:	8" Hollow Stem Auger	DRILLING DATE:	4/26/2022
LOGGED BY:	DD	SAMPLE METHOD:	Bulk and SPT	ELEVATION:	Existing Pad

BORING LOG: B-8

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense, slightly moist, brown, fine- to medium-grained, Clayey SAND (SC).	
3			11 12 15						
5								-- Becomes red-brown at and below 5 feet bgs.	
6			5 5 6						
9			12 8 11						
14			10 11 12						
18								--Becomes dense at and below 18 ft bgs.	
19			12 15 18						
20								Excavation terminated at 20 ft bgs. (non-refusal) Groundwater not encountered. Backfilled with spoils on 4-26-2022.	

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 1
CTE JOB NO:	10-16564G	DRILLING METHOD:	8" Hollow Stem Auger	DRILLING DATE:	4/26/2022
LOGGED BY:	DD	SAMPLE METHOD:	Bulk and SPT	ELEVATION:	Existing Pad

BORING LOG: B-9

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense, slightly moist, brown, fine- to medium-grained, Clayey SAND (SC).	
1									
2									
3			7						
4			9						
5			13			SC		**QUATERNARY-AGE OLD ALLUVIUM (Qoa):** Very dense, slightly moist, red-brown, fine- to medium-grained, Clayey SAND (SC).	
6			20						
7			24					--Becomes light brown at and below 8 ft bgs.	
8			19						
9			18						
10			17						
11			20						
12									
13									
14			18						
15			25						
16			22						
17									
18									
19			19						
20			26						
21			32					Excavation terminated at 20 ft bgs. (non-refusal)	
22								Groundwater not encountered.	
23								Backfilled with spoils on 4-26-2022.	
24									
25									
26									

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 1
CTE JOB NO:	10-16564G	DRILLING METHOD:	8" Hollow Stem Auger	DRILLING DATE:	4/26/2022
LOGGED BY:	DD	SAMPLE METHOD:	Bulk and SPT	ELEVATION:	Existing Pad

BORING LOG: B-10

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense, slightly moist, brown, fine- to medium-grained, Clayey SAND (SC).	
3			9 11 20						
6			11 8 9						
9			11 13 15						
13								--Becomes dark brown at and below 13 ft bgs.	
14			6 11 20						
16						SC		**QUATERNARY-AGE YOUNG ALLUVIUM (Qya):** Medium dense, moist, dark brown, fine- to medium-grained, Clayey SAND (SC).	
19			8 7 8						
20								Excavation terminated at 20 ft bgs. (non-refusal) Groundwater not encountered. Backfilled with spoils on 4-26-2022.	

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 1
CTE JOB NO:	10-16564G	DRILLING METHOD:	8" Hollow Stem Auger	DRILLING DATE:	4/27/2022
LOGGED BY:	DD	SAMPLE METHOD:	Bulk and SPT	ELEVATION:	Existing Pad

BORING LOG: B-11

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC		**QUATERNARY-AGE YOUNG ALLUVIUM (Qya):** Medium dense to dense, slightly moist, brown, fine- to medium-grained, Clayey SAND (SC).	
3		■	7 6 8						
5								--Becomes light brown and red-brown.	
6		■	10 12 11						
8								--Becomes reddish brown and coarser-grained at and below 8 ft bgs.	
9		■	12 12 14						
14		■	16 7 9						
18		■	8 9 10						
20								Excavation terminated at 20 ft bgs. (non-refusal) Groundwater not encountered. Backfilled with spoils on 4-27-2022.	

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 1
CTE JOB NO:	10-16564G	DRILLING METHOD:	8" Hollow Stem Auger	DRILLING DATE:	4/27/2022
LOGGED BY:	DD	SAMPLE METHOD:	Bulk and SPT	ELEVATION:	Existing Pad

BORING LOG: B-12

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense to dense, slightly moist, brown, fine- to medium-grained, Clayey SAND (SC).	
1									
2									
3			11						
4			9					--Becomes light brown to reddish brown.	
5			11						
6						SC		**QUATERNARY-AGE OLD ALLUVIUM (Qoa):** Very dense, slightly moist, light brown, fine- to medium-grained, Clayey SAND (SC) with some gravel.	
7			13						
8			17						
9			21						
10			15						
11			19						
12			25						
13									
14									
15			16						
16			16						
17			17						
18									
19									
20			14						
21			18						
22			23					Excavation terminated at 20 ft bgs. (non-refusal)	
23								Groundwater not encountered.	
24								Backfilled with spoils on 4-27-2022.	
25									
26									

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 1
CTE JOB NO:	10-16564G	DRILLING METHOD:	8" Hollow Stem Auger	DRILLING DATE:	4/27/2022
LOGGED BY:	DD	SAMPLE METHOD:	Bulk and SPT	ELEVATION:	Existing Pad

BORING LOG: B-13

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense to dense, slightly moist, brown, fine- to medium-grained, Clayey SAND (SC).	
3			16 19 27						
6			14 17 18						
9			12 12 15						
14			10 18 22						
19			10 10 13					-- Becomes red-brown, gray brown and black with some organics and roots present.	
20								Excavation terminated at 20 ft bgs. (non-refusal) Groundwater not encountered. Backfilled with spoils on 4-27-2022.	

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 1
CTE JOB NO:	10-16564G	DRILLING METHOD:	8" Hollow Stem Auger	DRILLING DATE:	4/27/2022
LOGGED BY:	DD	SAMPLE METHOD:	Bulk and SPT	ELEVATION:	Existing Pad

BORING LOG: B-14

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense, slightly moist, brown, fine- to medium-grained, Clayey SAND (SC).	
3			11 14 15					--Turns black with some organic materials.	
5								--Becomes reddish brown.	
6			11 12 16						
9			6 8 13					-- Becomes dark-brown and light brown.	
14			15 18 21						
19			14 15 17						
20								Excavation terminated at 20 ft bgs. (non-refusal) Groundwater not encountered. Backfilled with spoils on 4-27-2022.	

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 1
CTE JOB NO:	10-16564G	DRILLING METHOD:	8" Hollow Stem Auger	DRILLING DATE:	4/27/2022
LOGGED BY:	DD	SAMPLE METHOD:	Bulk and SPT	ELEVATION:	Existing Pad

BORING LOG: B-15

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense, slightly moist, brown, fine- to medium-grained, Clayey SAND (SC).	
3			4 9 19						
6			6 11 15						
9			13 15 16						
14			13 15 16						
18								--Becomes dense at and below 18 feet bgs.	
19			16 18 21						
20								Excavation terminated at 20 ft bgs. (non-refusal) Groundwater not encountered. Backfilled with spoils on 4-27-2022.	

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 1
CTE JOB NO:	10-16564G	DRILLING METHOD:	8" Hollow Stem Auger	DRILLING DATE:	4/27/2022
LOGGED BY:	DD	SAMPLE METHOD:	Bulk and SPT	ELEVATION:	Existing Pad

BORING LOG: B-16

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense, slightly moist, brown to red-brown, fine- to medium-grained, Clayey SAND (SC).	
3			10 21 30			SC		**QUATERNARY-AGE OLD ALLUVIUM (Qoa):** Very dense, slightly moist, brown to red-brown, fine- to medium-grained, Clayey SAND (SC).	
6			16 18 28					--Becomes light brown at and below 8 ft bgs.	
9			18 16 29						
14			17 50/6"						
19			11 18 19						
20								Excavation terminated at 20 ft bgs. (non-refusal) Groundwater not encountered. Backfilled with spoils on 4-27-2022.	

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 1
CTE JOB NO:	10-16564G	DRILLING METHOD:	8" Hollow Stem Auger	DRILLING DATE:	4/27/2022
LOGGED BY:	DD	SAMPLE METHOD:	Bulk and SPT	ELEVATION:	Existing Pad

BORING LOG: B-17

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense to dense, slightly moist, red-brown, fine- to medium-grained, Clayey SAND (SC).	
3		■	11 11 10						
5								--Becomes brown at and below 5 ft bgs.	
6		■	12 14 17						
9		■	8 9 18					-- Some black organic bearing soil encountered.	
14		■	9 15 19						
18						SC		**QUATERNARY-AGE OLD ALLUVIUM (Qoa):** Dense, slightly moist, brown to red-brown, fine- to medium-grained, Clayey SAND (SC).	
19		■	13 21 26						
20								Excavation terminated at 20 ft bgs. (non-refusal) Groundwater not encountered. Backfilled with spoils on 4-27-2022.	

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 1
CTE JOB NO:	10-16564G	DRILLING METHOD:	8" Hollow Stem Auger	DRILLING DATE:	4/27/2022
LOGGED BY:	DD	SAMPLE METHOD:	Bulk and SPT	ELEVATION:	Existing Pad

BORING LOG: B-18

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):**	
1								Medium dense to dense, slightly moist, gray-brown, fine- to medium-grained, Clayey SAND (SC).	EI, GS, CHM
2									
3			11						
4			13						
5			12						
6			14						
7			15						
8			17						
9			10						
10			14						
11			24						
12									
13									
14			13						
15			9						
16			10						
17									
18								--Becomes dark gray-brown at and below 18 ft bgs.	
19			12						
20			14						
21			14						
22								Excavation terminated at 20 ft bgs. (non-refusal)	
23								Groundwater not encountered.	
24								Backfilled with spoils on 4-27-2022.	
25									
26									

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 2
CTE JOB NO:	10-16564G	DRILLING METHOD:	CME 75	DRILLING DATE:	8/8/2022
LOGGED BY:	DD	SAMPLE METHOD:	SPT and RING	ELEVATION:	Existing Pad

BORING LOG: B-19

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SM/SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense to dense, slightly moist, dark reddish-brown, fine- to medium-grained, Silty to Clayey SAND (SM/SC).	
5		■	15 18 21						
9						SC		Medium dense, moist, dark brown, fine- to medium-grained Clayey SAND (SC). --Hydrocarbon odor present.	
10		■	5 8 10						
15		▨	19 30 36						
16						SM		**QUATERNARY-AGE YOUNG ALLUVIUM DEPOSITS (Qya):** Medium dense, moist, dark reddish-brown, fine- to medium-grained Silty SAND (SM). --Becomes dark brown.	
20		▨	12 11 15						CN
25		■	7 20 50/5"						
26						SC		**QUATERNARY-AGE OLDER ALLUVIUM DEPOSITS (Qoa):**	

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	2 of 2
CTE JOB NO:	10-16564G	DRILLING METHOD:	CME 75	DRILLING DATE:	8/8/2022
LOGGED BY:	DD	SAMPLE METHOD:	SPT and RING	ELEVATION:	Existing Pad

BORING: B-19

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
25									
26								**QUATERNARY-AGE OLDER ALLUVIUM DEPOSITS (Qoa):** Very dense, slightly moist, reddish-brown, fine- to medium-grained Clayey SAND (SC), oxidized.	
27									
28									
29									
30		☒	35 50/3"			"SM"		**CRETACEOUS-AGE GRANODIORITE OF INDIAN MOUNTAIN (Ki):** Excavates as very dense, slightly moist, reddish-gray, fine- to medium-grained Silty SAND "SM", oxidized, severely weathered.	
31									
32									
33									
34									
35		☐	15 47 50/5"						
36									
37								Excavation terminated at 36.5 ft bgs. (non-refusal) Groundwater not encountered. Backfilled with cement and bentonite grout on 8-8-2022.	
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									
51									

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 2
CTE JOB NO:	10-16564G	DRILLING METHOD:	CME 75	DRILLING DATE:	8/8/2022
LOGGED BY:	DD	SAMPLE METHOD:	SPT and RING	ELEVATION:	Existing Pad

BORING LOG: B-20

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SM/SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense to dense, slightly moist, dark reddish-brown, fine- to medium-grained, Silty to Clayey SAND (SM/SC).	
5		■	7 9 10						
10		▨	9 31 35						
15		■	6 9 9						
17						SM		**QUATERNARY-AGE YOUNG ALLUVIUM DEPOSITS (Qya):** Medium dense, moist, dark reddish-brown, fine- to medium-grained Silty SAND (SM).	
20		▨	9 15 26					--Hydrocarbon odor present.	CN
25		■	4 5 8						

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	2 of 2
CTE JOB NO:	10-16564G	DRILLING METHOD:	CME 75	DRILLING DATE:	8/8/2022
LOGGED BY:	DD	SAMPLE METHOD:	SPT and RING	ELEVATION:	Existing Pad

BORING: B-20

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
25									
26									
27									
28									
29									
30		☒	17					-- Gravel in sample.	
31			50/4"						
32									
33									
34						SC		**QUATERNARY-AGE OLDER ALLUVIUM DEPOSITS (Qoa):**	
35		☐	10					Very dense, slightly moist, reddish-brown, fine- to medium-grained	
36			37					Clayey SAND (SC), oxidized.	
37			46						
38									
39							▼	-- Groundwater at 39 ft bgs.	
40		☒	22						
41			40						
42			50/6"						
43									
44									
45		☐	33						
46			38						
			47						
47						"SM"		**CRETACEOUS-AGE GRANODIORITE OF INDIAN MOUNTAIN (Ki):**	
48								Excavates as very dense, moist, reddish-gray, fine- to medium-	
49								grained Silty SAND "SM", oxidized, severely weathered.	
50								Excavation terminated at 46.5 ft bgs. (non-refusal)	
51								Groundwater not encountered.	
								Backfilled with cement and bentonite grout on 8-8-2022.	

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 2
CTE JOB NO:	10-16564G	DRILLING METHOD:	CME 75	DRILLING DATE:	8/8/2022
LOGGED BY:	DD	SAMPLE METHOD:	SPT and RING	ELEVATION:	Existing Pad

BORING LOG: B-21

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SM/SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense to dense, slightly moist, dark reddish-brown, fine- to medium-grained, Silty to Clayey SAND (SM/SC).	
10		▯	10 18 24						
12						SM		**QUATERNARY-AGE YOUNG ALLUVIUM DEPOSITS (Qya):** Medium dense to dense, moist, dark brown, fine- to medium-grained Silty SAND (SM).	
15		▨	22 29 50/6"					--Hydrocarbon odor present.	
20		▯	11 18 20						CN
25		▨	9 14 20						

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	2 of 2
CTE JOB NO:	10-16564G	DRILLING METHOD:	CME 75	DRILLING DATE:	8/8/2022
LOGGED BY:	DD	SAMPLE METHOD:	SPT and RING	ELEVATION:	Existing Pad

BORING: B-21

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
25									
26									
27									
28						CL		Very stiff, slightly moist, dark brown, fine- to medium-grained Sandy CLAY (CL).	
29									
30			5						AL
31			7						
32			13						
33									
34									
35						SC			
36			11					**QUATERNARY-AGE OLDER ALLUVIUM DEPOSITS (Qoa):** Very dense, moist, reddish-brown, fine- to medium-grained Clayey SAND (SC), oxidized with manganese nodules.	
37			33						
38			50/6"						
39									
40			13						
41			23						
42			35						
43									
44									
45			7						
46			18						
47			25					-- Groundwater at approximately 47 ft bgs.	
48									
49									
50			11					Excavation terminated at 51.5 ft bgs. (non-refusal)	
51			22					Groundwater encountered at approximately 47 ft bgs.	
			33					Backfilled with cement and bentonite grout on 8-8-2022.	

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 2
CTE JOB NO:	10-16564G	DRILLING METHOD:	CME 75	DRILLING DATE:	8/9/2022
LOGGED BY:	DD	SAMPLE METHOD:	SPT and RING	ELEVATION:	Existing Pad

BORING LOG: B-22

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SM/SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense to dense, slightly moist, dark reddish-brown, fine- to medium-grained, Silty to Clayey SAND (SM/SC).	
10		▯	11 15 22			SM		**QUATERNARY-AGE YOUNG ALLUVIUM DEPOSITS (Qya):** Medium dense to dense, moist, dark brown, fine- to medium-grained Silty SAND (SM).	
15		▯	17 22 43			SC		Dense, moist, dark reddish-brown, fine- to medium-grained Clayey SAND (SC).	
20		▯	7 8 11			SM		Medium dense, moist, dark reddish-brown, fine- to medium-grained Silty SAND (SM), oxidized.	
25		▯	7 9 10						CN

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	2 of 2
CTE JOB NO:	10-16564G	DRILLING METHOD:	CME 75	DRILLING DATE:	8/9/2022
LOGGED BY:	DD	SAMPLE METHOD:	SPT and RING	ELEVATION:	Existing Pad

BORING: B-22

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
25									
26									
27									
28									
29									
30			4						
31			7						
32			10						
33								-- Groundwater at approximately 33 ft bgs.	
34									
35			9						
36			16						CN
37			18						
38									
39						CL		Very stiff, moist, reddish-olive, fine- to medium-grained Sandy	
40			7					CLAY (CL), oxidized.	
41			12						AL
42			14						
43									
44									
45			11						
46			40					-- Becomes hard.	
47			50/6"						
48									
49									
50			10					Excavation terminated at 51.5 ft bgs. (non-refusal)	
51			17					Groundwater encountered at approximately 33 ft bgs.	
			24					Backfilled with cement and bentonite grout on 8-9-2022.	

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 2
CTE JOB NO:	10-16564G	DRILLING METHOD:	CME 75	DRILLING DATE:	8/9/2022
LOGGED BY:	DD	SAMPLE METHOD:	SPT and RING	ELEVATION:	Existing Pad

BORING LOG: B-23

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SM/SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense to dense, slightly moist, dark reddish-brown, fine- to medium-grained, Silty to Clayey SAND (SM/SC).	
7						SM		**QUATERNARY-AGE YOUNG ALLUVIUM DEPOSITS (Qya):** Medium dense to dense, moist, dark brown, fine- to medium-grained Silty SAND (SM), oxidied, massive.	
10			21 23 24						
15			23 50/5"						
20			6 12 16						
23								-- Groundwater at approximately 23 ft bgs.	
25			5 8 9						CN

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	2 of 2
CTE JOB NO:	10-16564G	DRILLING METHOD:	CME 75	DRILLING DATE:	8/9/2022
LOGGED BY:	DD	SAMPLE METHOD:	SPT and RING	ELEVATION:	Existing Pad

BORING: B-23

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
25									
26									
27									
28									
29									
30			4						
31			4						
			6						
32									
33									
34									
35			11						
36			15						
			26						
37									
38						CL		Very stiff, moist, reddish-olive, fine- to medium-grained Sandy CLAY (CL), oxidized.	
39									
40			8						
41			13						AL
			16						
42									
43									
44									
45			12						
46			19						
			43						
47									
48									
49									
50			10						
51			17					Excavation terminated at 51.5 ft bgs. (non-refusal) Groundwater encountered at approximately 23 ft bgs. Backfilled with cement and bentonite grout on 8-9-2022.	
			27						

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	1 of 2
CTE JOB NO:	10-16564G	DRILLING METHOD:	CME 75	DRILLING DATE:	8/9/2022
LOGGED BY:	DD	SAMPLE METHOD:	SPT and RING	ELEVATION:	Existing Pad

BORING LOG: B-24

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SM/SC		**QUATERNARY-AGE PREVIOUSLY PLACED FILL (Qppf):** Medium dense to dense, slightly moist, dark reddish-brown, fine- to medium-grained, Silty to Clayey SAND (SM/SC).	
5		■	5 6 7						
9						SM		**QUATERNARY-AGE YOUNG ALLUVIUM DEPOSITS (Qya):** Medium dense, moist, dark reddish-brown, fine- to medium-grained Silty SAND (SM), oxidied, massive.	
10		■	17 18 25						
15		■	5 5 7						
20		■	10 28 50/6"						
24							▼	-- Groundwater at approximately 24 ft bgs.	
25		■	1 1 2					--Becomes loose.	

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PROJECT:	BUESD Potential New School Site	EXCAVA. CONTRACTOR:	Baja Exploration	SHEET:	2 of 2
CTE JOB NO:	10-16564G	DRILLING METHOD:	CME 75	DRILLING DATE:	8/9/2022
LOGGED BY:	DD	SAMPLE METHOD:	SPT and RING	ELEVATION:	Existing Pad

BORING: B-24

Depth (Feet)	Bulk Sample	Driven Type	Blows/6"	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
25									
26									
27									
28									
29									
30			3						
31			6						CN
32			5						
33								--Becomes dense.	
34									
35			9						
36			24						
37			45						
38						CL		Very stiff, moist, reddish-olive, fine- to medium-grained Sandy CLAY (CL), oxidized.	
39									
40			11						
41			18						AL
42			22						
43									
44									
45			16						
46			45						
47			50/5"						
48									
49									
50			9					Excavation terminated at 51.5 ft bgs. (non-refusal)	
51			15					Groundwater encountered at approximately 24 ft bgs.	
			23					Backfilled with cement and bentonite grout on 8-9-2022.	

APPENDIX C

LABORATORY TEST METHODS AND RESULTS

LABORATORY TEST METHODS

In-situ Moisture Content and Dry Density Tests (ASTM D2216 and D2937)

The in-situ moisture content and dry density of selected samples obtained during the subsurface investigations were evaluated in general accordance with the latest versions of the ASTM D2216 and D2937 test methods. The methods involve obtaining the moist weight of the sample and then drying the sample to obtain its dry weight. The moisture content is calculated by taking the difference between the wet and dry weights, dividing it by the dry weight of the sample and expressing the result as a percentage. The dry weight and the measured volume of the tested sample are then used to calculate the samples dry density. The results of the in-situ moisture content and dry density tests are presented in the following section of this appendix and on the logs of the exploratory excavations presented in Appendix B.

Classification (ASTM D2487)

Earth materials encountered were visually and texturally classified in accordance with the Unified Soil Classification System (USCS/ASTM D2487) and ASTM D2488. Material classifications are indicated on the logs of the exploratory borings presented in Appendix B.

Particle-size Distribution Test (ASTM D6913)

Particle-size distribution (gradation) testing was performed on selected samples of the materials encountered in general accordance with the latest version of the ASTM D6913 test method. The test results were utilized in evaluating the soil classifications in accordance with the Unified Soil Classification System and to evaluate the geotechnical engineering characteristics of the tested material. The test results are plotted on grain-size distribution graphs and are presented in the following section of this appendix.

Atterberg Limits Test (ASTM D4318)

The Atterberg limits test was performed on selected samples of the materials encountered in general accordance with the ASTM D4318 test method. The test obtains the liquid limit and plastic index of the soil and the results are used to aid in classification of soils. The test data is also useful for purposes of evaluating expansion potential and strength characteristics of the soil. The test results are presented in the following section of this appendix.

Expansion Index Test (ASTM D4829)

Expansion index testing was performed on selected samples of the earth materials encountered in general accordance with the ASTM D4829 test method. The test determines the expansion potential of the materials encountered. The test results are presented in the following section of this appendix.

Soil Corrosivity Tests

The water-soluble sulfate and chloride content, and the resistivity and pH of selected samples was performed by a third-party laboratory in general accordance with California Test Methods. The tests results are useful in the assessment of the degree of corrosivity of the earth materials encountered with regard to concrete and normal grade steel.

IN SITU DRY DENSITY & MOISTURE CONTENT
(ASTM D2937 and D2216)

Sample Location / Depth (feet)	Moisture Content (percent)	Dry Density (pounds per cubic foot)
B-19 @ 20	10.4	122.8
B-20 @ 20	9.1	127.4
B-24 @ 30	15.7	120.8
B-23 @ 25	15.0	119.4
B-22 @ 35	13.3	122.8
B-22 @ 25	12.1	126.6
B-21 @ 25	8.2	128.9

ATTERBERG LIMITS
(ASTM D4318)

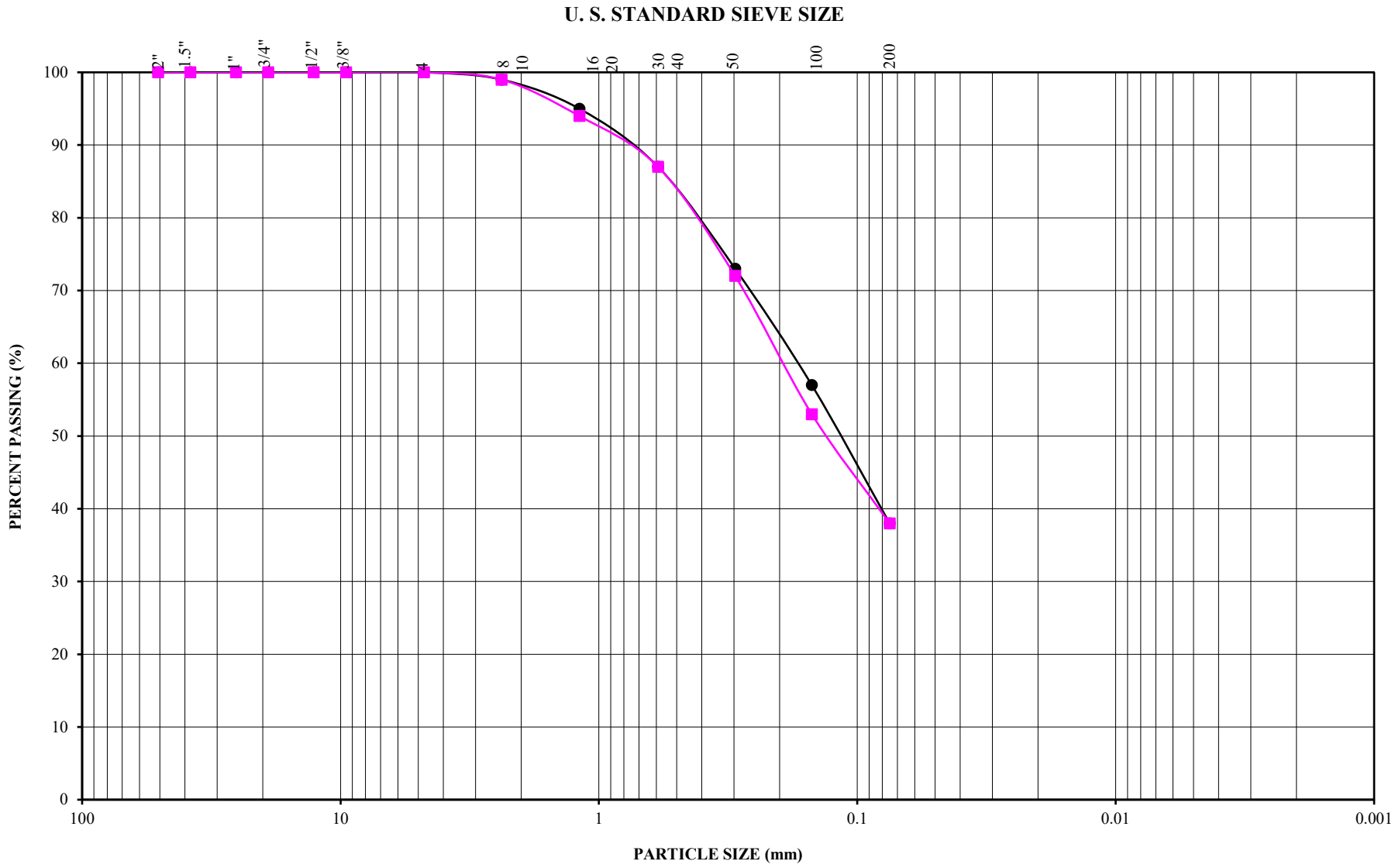
Sample Location / Depth (feet)	Liquid Limit	Plasticity Index	Classification
B-21 @ 30	26	8	CL
B-22 @ 40	20	5	CL
B-23 @ 40	28	12	CL
B-24 @ 40	24	6	CL

RESULTS OF THE EXPANSION INDEX TESTS
(ASTM D4829)

Sample Location / Depth (feet)	Expansion Index	Expansion Potential
B-2 @ 0 – 4	19	Very Low
B-5 @ 0 – 4	19	Very Low
B-18 @ 0 – 4	23	Low

RESULTS OF THE CORROSIVITY TESTS
(CTM 417, CTM 422 and CTM 643)

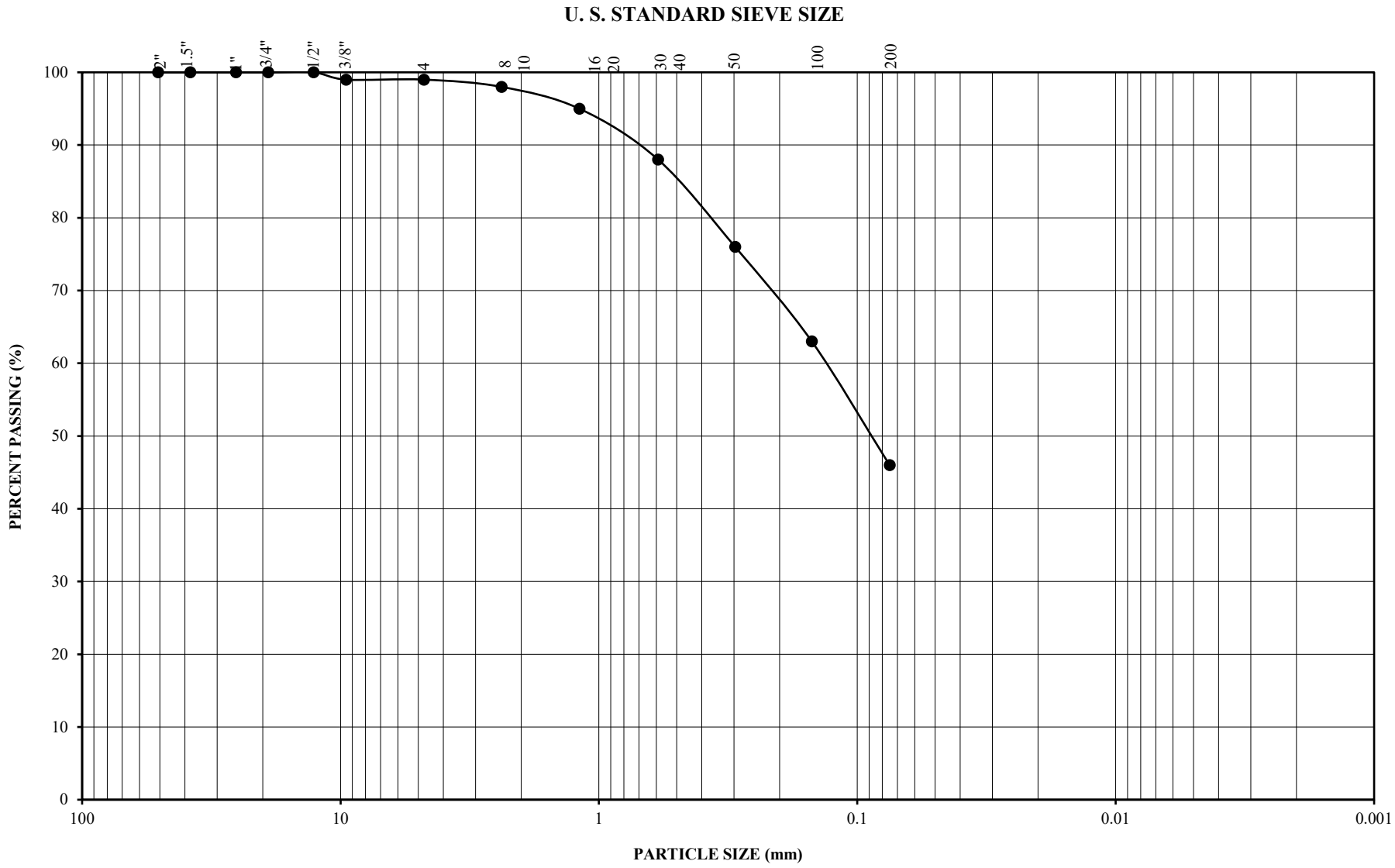
Sample Location / Depth (ft)	B-2 @ 0 – 4	B-5 @ 0 – 4	B-18 @ 0 – 4
Material Type (USCS)	Clayey Sand (SC)	Clayey Sand (SC)	Clayey Sand (SC)
pH	8.4	8.6	8.2
Minimum Resistivity (Ohm-cm)	5660	4790	7180
Water Soluble Sulfates (ppm)	139	180	95
Water Soluble Chlorides (ppm)	32	36	27



PARTICLE SIZE ANALYSIS

CTE INC.
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115, Escondido, CA 92026 Ph (760) 746-4955

Sample Designation	Sample Depth (feet)	Symbol	Liquid Limit (%)	Plasticity Index	Classification
B-2	0-4	●	-	-	SC
B-5	0-4	■	-	-	SC
CTE JOB NUMBER:		4830.2116564		FIGURE:	C-1



PARTICLE SIZE ANALYSIS

CTE INC.
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115, Escondido, CA 92026 Ph (760) 746-4955

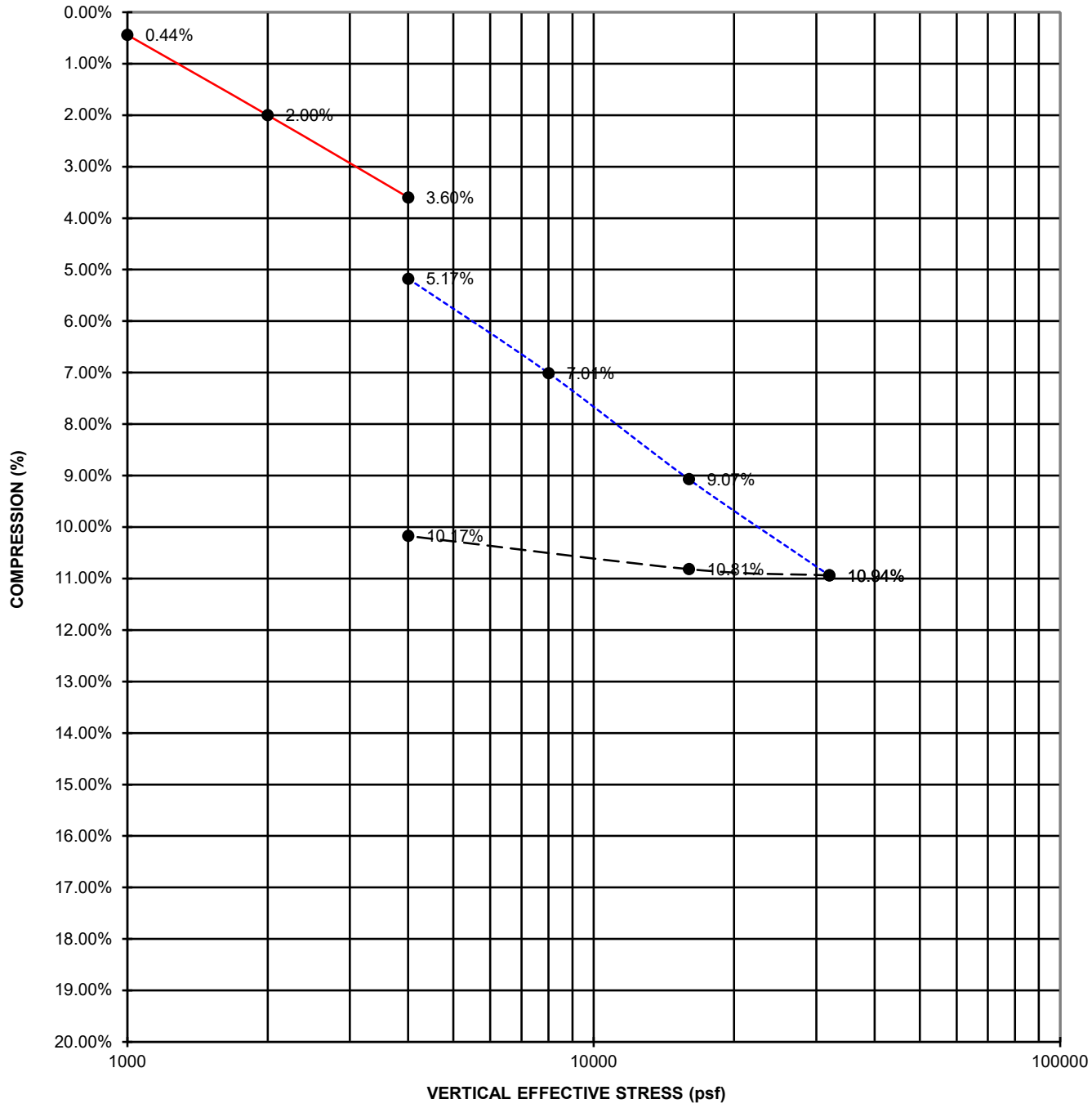
Sample Designation	Sample Depth (feet)	Symbol	Liquid Limit (%)	Plasticity Index	Classification
B-18	0-4	●	-	-	SC
		■			

CTE JOB NUMBER: 4830.2116564 FIGURE: C-2

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FIELD MOISTURE
SAMPLE SATURATED
REBOUND

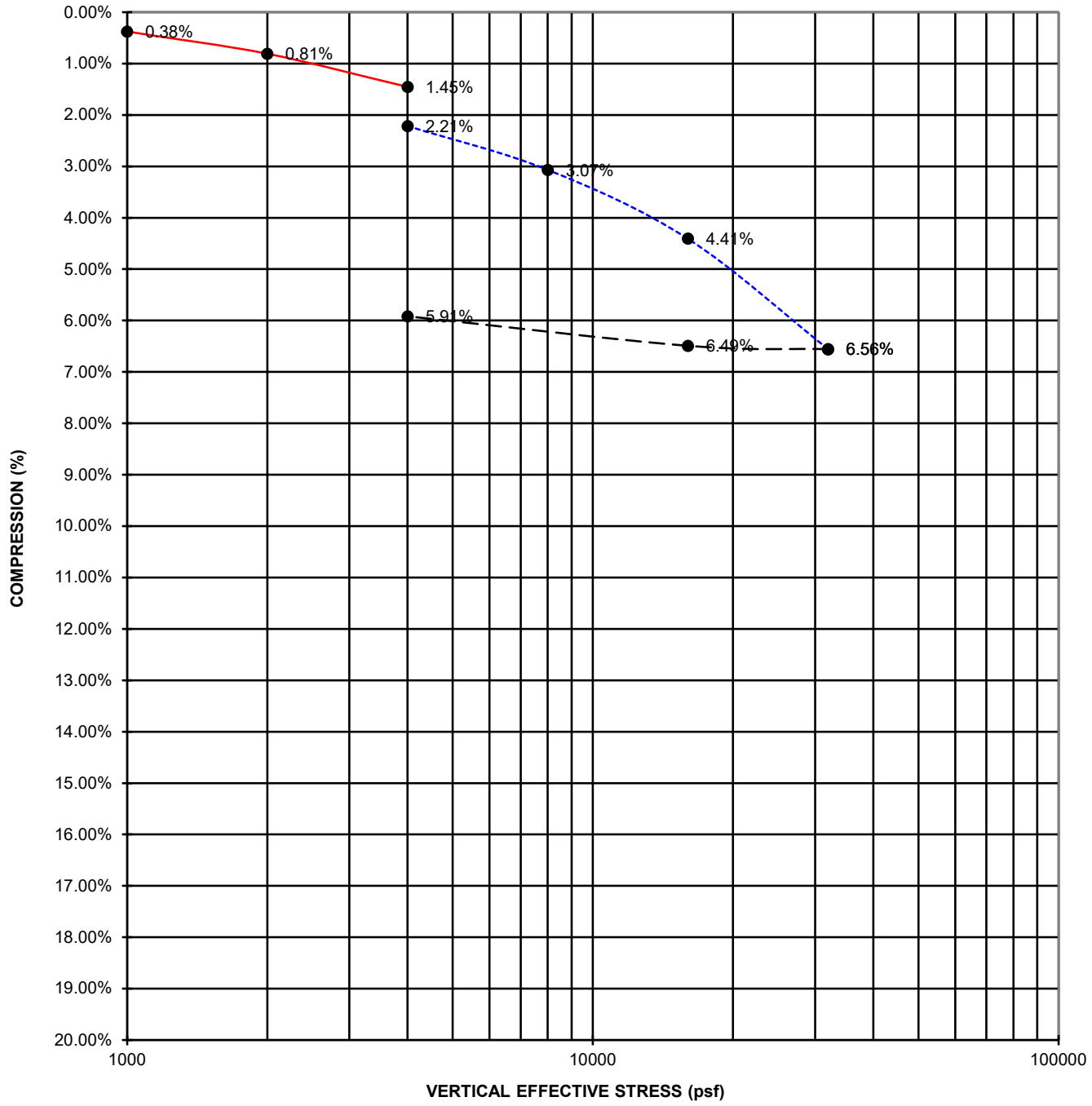
Consolidation Test ASTM D2435

Project Name:	Cito Potential New School Site				
Project Number:	4830.2116564.(	Sample Date:	8/9/2022	Initial Moisture (%):	10.4
Lab Number:	33750	Test Date:		Final Moisture (%):	9.4
Sample Location:	B-19 @ 20'	Tested By:	L.S.	Initial Dry Density (PCF):	122.9
Sample Description:	Brown (SM)			Final Dry Density (PCF):	N/A

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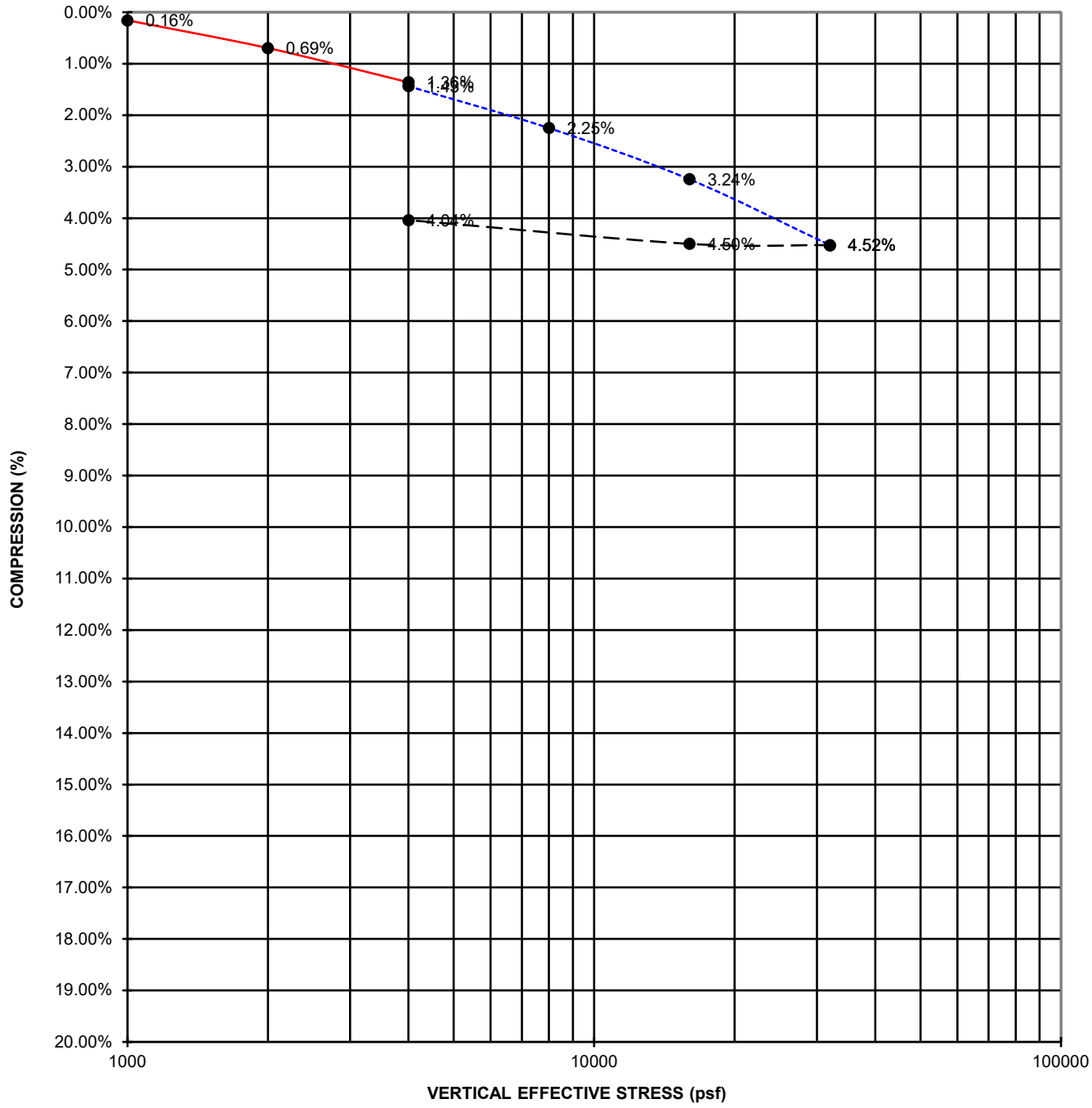
Consolidation Test ASTM D2435

Project Name:	Cito Potential New School Site				
Project Number:	4830.2116564.(	Sample Date:	8/9/2022	Initial Moisture (%):	9.1
Lab Number:	33750	Test Date:	9/22/2022	Final Moisture (%):	9.1
Sample Location:	B-20 @ 20'	Tested By:	L.S.	Initial Dry Density (PCF):	127.4
Sample Description:	Brown (SM)			Final Dry Density (PCF):	N/A

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FIELD MOISTURE
SAMPLE SATURATED
REBOUND

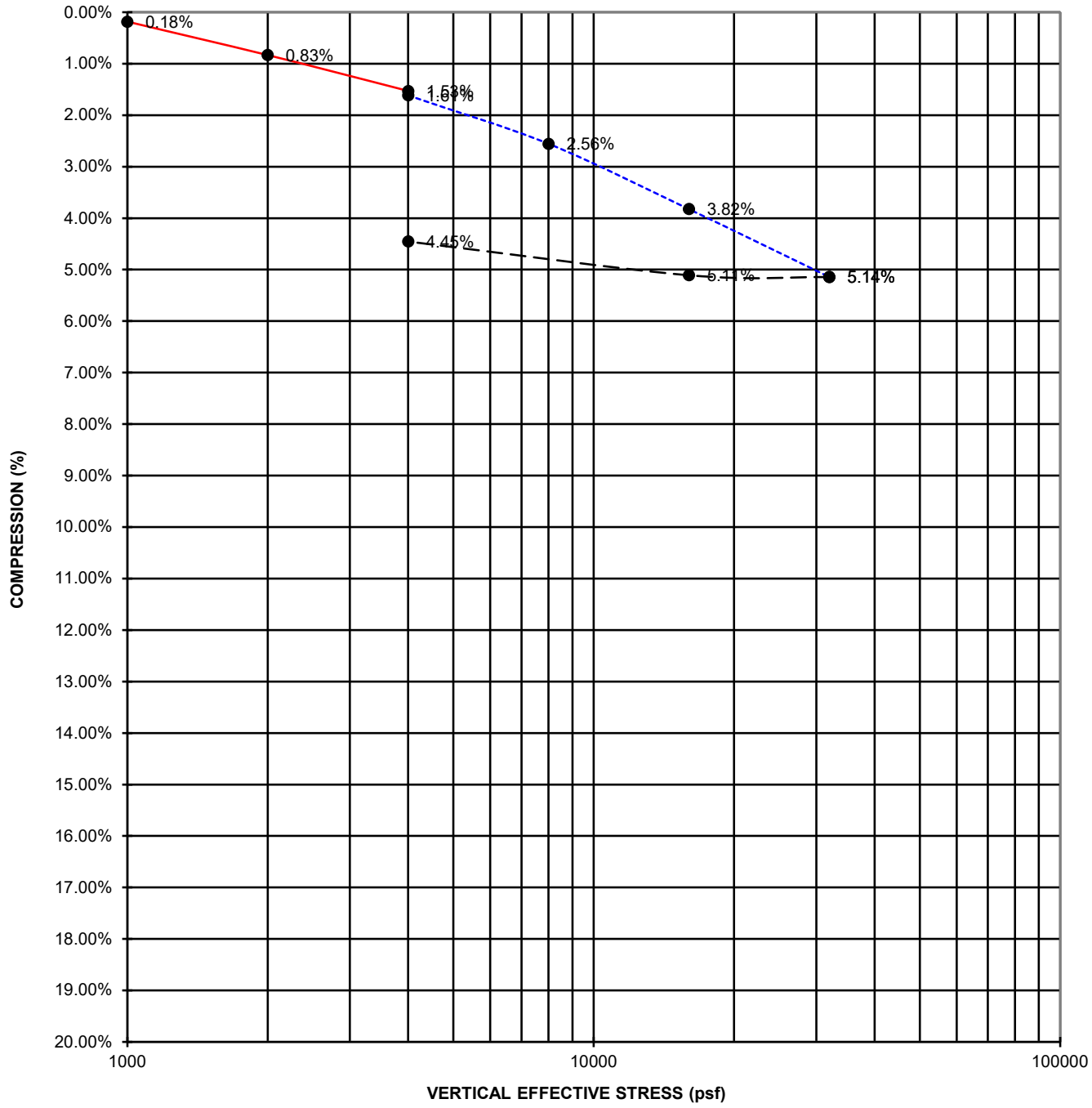
Consolidation Test ASTM D2435

Project Name:	Cito Potential New School Site				
Project Number:	4830.2116564.(	Sample Date:	8/9/2022	Initial Moisture (%):	8.2
Lab Number:	33750	Test Date:	8/29/2022	Final Moisture (%):	10.6
Sample Location:	B-21 @ 25'	Tested By:	L.S.	Initial Dry Density (PCF):	128.9
Sample Description:	Moderate Brown (SM)			Final Dry Density (PCF):	N/A

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FIELD MOISTURE
SAMPLE SATURATED
REBOUND

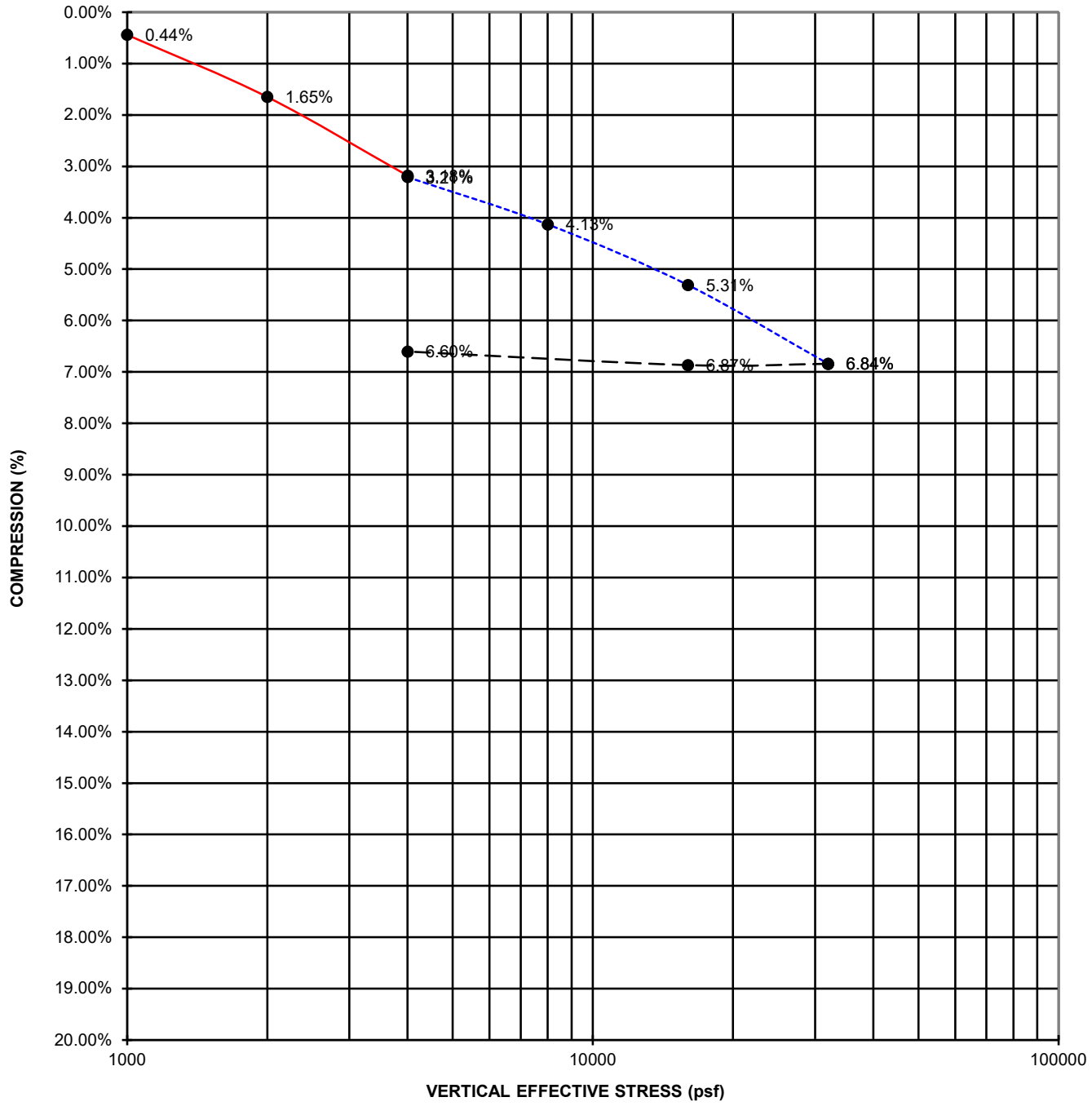
Consolidation Test ASTM D2435

Project Name:	Cito Potential New School Site				
Project Number:	4830.2116564.(	Sample Date:	8/9/2022	Initial Moisture (%):	12.1
Lab Number:	33750	Test Date:	8/27/2022	Final Moisture (%):	9.2
Sample Location:	B-22 @ 25'	Tested By:	L.S.	Initial Dry Density (PCF):	126.6
Sample Description:	Moderate Brown (SM)			Final Dry Density (PCF):	N/A

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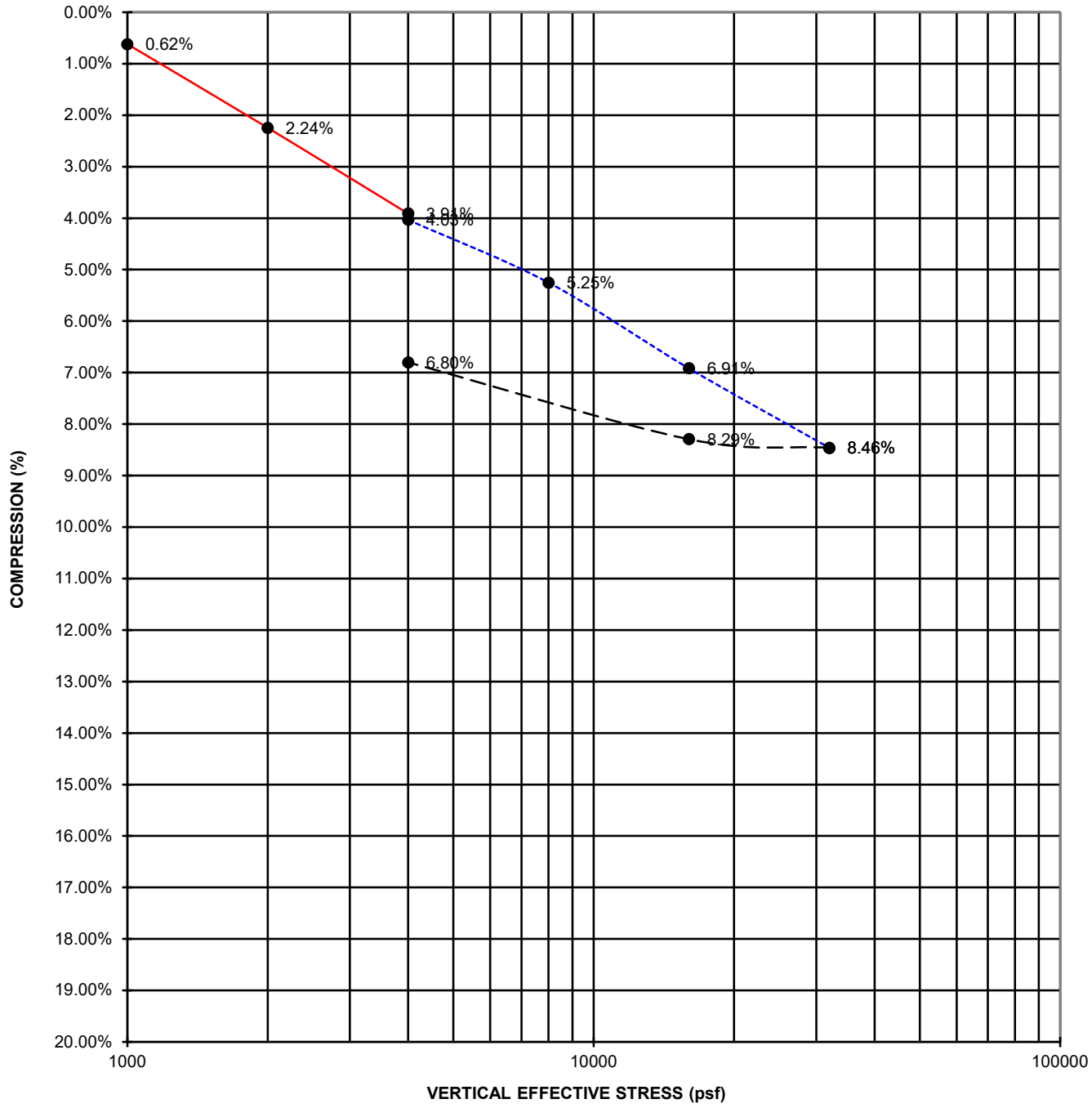
Consolidation Test ASTM D2435

Project Name:	Cito Potential New School Site				
Project Number:	4830.2116564.(	Sample Date:	8/9/2022	Initial Moisture (%):	13.3
Lab Number:	33750	Test Date:	8/26/2022	Final Moisture (%):	9.3
Sample Location:	B-22 @ 35'	Tested By:	L.S.	Initial Dry Density (PCF):	122.8
Sample Description:	Brown (SM)			Final Dry Density (PCF):	N/A

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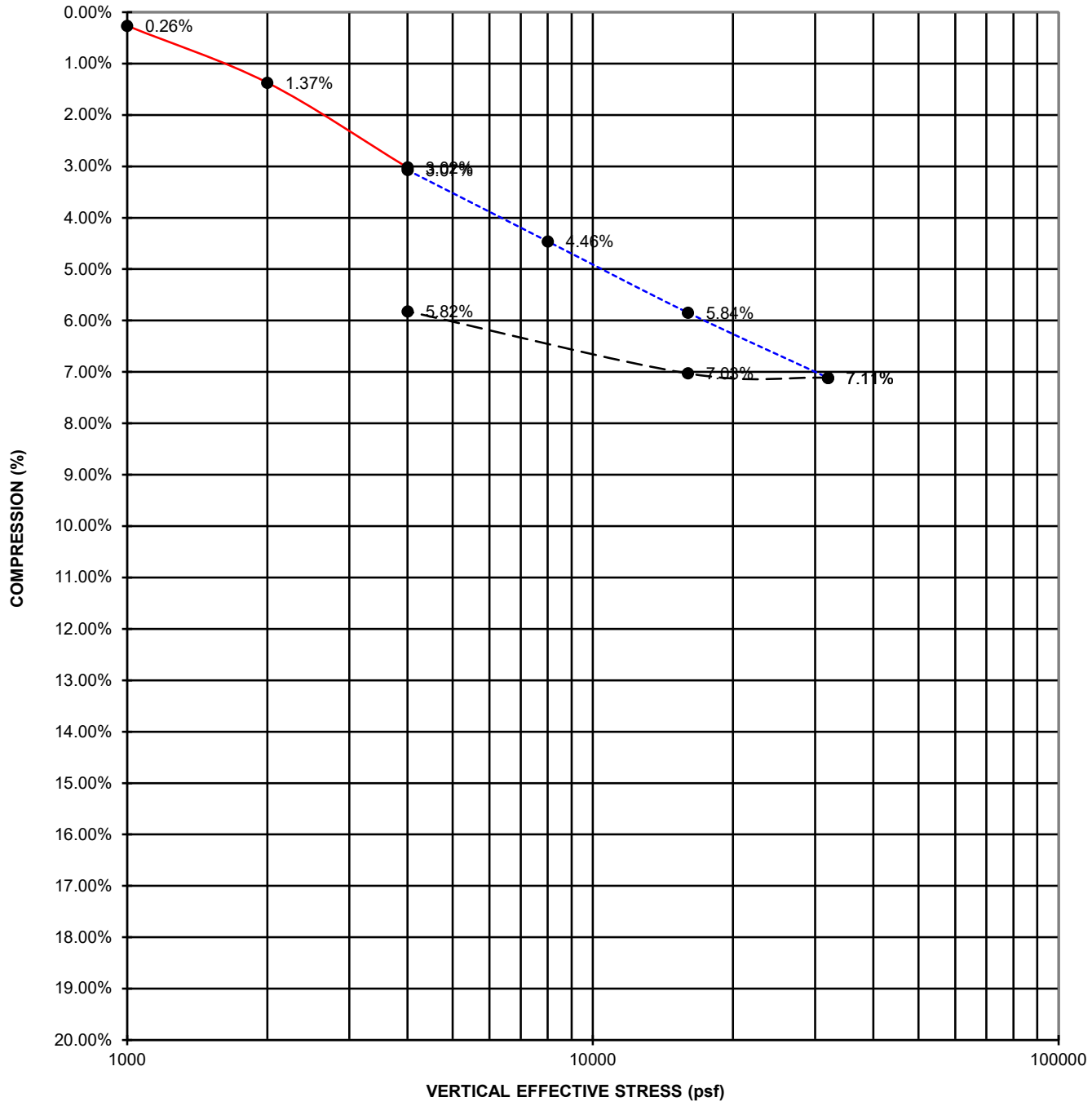
Consolidation Test ASTM D2435

Project Name:	Cito Potential New School Site				
Project Number:	4830.2116564.(	Sample Date:	8/9/2022	Initial Moisture (%):	15.0
Lab Number:	33750	Test Date:	8/18/2022	Final Moisture (%):	10.5
Sample Location:	B-23 @ 25'	Tested By:	L.S.	Initial Dry Density (PCF):	119.4
Sample Description:	Brown (SC)			Final Dry Density (PCF):	N/A

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Consolidation Test ASTM D2435

Project Name:	Cito Potential New School Site				
Project Number:	4830.2116564.(	Sample Date:	8/9/2022	Initial Moisture (%):	15.7
Lab Number:	33750	Test Date:	8/17/2022	Final Moisture (%):	11.9
Sample Location:	B-24 @ 30'	Tested By:	L.S.	Initial Dry Density (PCF):	120.8
Sample Description:	Moderate Brown (SM)			Final Dry Density (PCF):	N/A

APPENDIX D

STANDARD SPECIFICATIONS FOR GRADING

Section 1 - General

Construction Testing & Engineering, Inc. presents the following standard recommendations for grading and other associated operations on construction projects. These guidelines should be considered a portion of the project specifications. Recommendations contained in the body of the previously presented soils report shall supersede the recommendations and or requirements as specified herein. The project geotechnical consultant shall interpret disputes arising out of interpretation of the recommendations contained in the soils report or specifications contained herein.

Section 2 - Responsibilities of Project Personnel

The geotechnical consultant should provide observation and testing services sufficient to general conformance with project specifications and standard grading practices. The geotechnical consultant should report any deviations to the client or his authorized representative.

The Client should be chiefly responsible for all aspects of the project. He or his authorized representative has the responsibility of reviewing the findings and recommendations of the geotechnical consultant. He shall authorize or cause to have authorized the Contractor and/or other consultants to perform work and/or provide services. During grading the Client or his authorized representative should remain on-site or should remain reasonably accessible to all concerned parties in order to make decisions necessary to maintain the flow of the project.

The Contractor is responsible for the safety of the project and satisfactory completion of all grading and other associated operations on construction projects, including, but not limited to, earth work in accordance with the project plans, specifications and controlling agency requirements.

Section 3 - Preconstruction Meeting

A preconstruction site meeting should be arranged by the owner and/or client and should include the grading contractor, design engineer, geotechnical consultant, owner’s representative and representatives of the appropriate governing authorities.

Section 4 - Site Preparation

The client or contractor should obtain the required approvals from the controlling authorities for the project prior, during and/or after demolition, site preparation and removals, etc. The appropriate approvals should be obtained prior to proceeding with grading operations.

Clearing and grubbing should consist of the removal of vegetation such as brush, grass, woods, stumps, trees, root of trees and otherwise deleterious natural materials from the areas to be graded. Clearing and grubbing should extend to the outside of all proposed excavation and fill areas.

Demolition should include removal of buildings, structures, foundations, reservoirs, utilities (including underground pipelines, septic tanks, leach fields, seepage pits, cisterns, mining shafts, tunnels, etc.) and other man-made surface and subsurface improvements from the areas to be graded. Demolition of utilities should include proper capping and/or rerouting pipelines at the project perimeter and cutoff and capping of wells in accordance with the requirements of the governing authorities and the recommendations of the geotechnical consultant at the time of demolition.

Trees, plants or man-made improvements not planned to be removed or demolished should be protected by the contractor from damage or injury.

Debris generated during clearing, grubbing and/or demolition operations should be wasted from areas to be graded and disposed off-site. Clearing, grubbing and demolition operations should be performed under the observation of the geotechnical consultant.

Section 5 - Site Protection

Protection of the site during the period of grading should be the responsibility of the contractor. Unless other provisions are made in writing and agreed upon among the concerned parties, completion of a portion of the project should not be considered to preclude that portion or adjacent areas from the requirements for site protection until such time as the entire project is complete as identified by the geotechnical consultant, the client and the regulating agencies.

Precautions should be taken during the performance of site clearing, excavations and grading to protect the work site from flooding, ponding or inundation by poor or improper surface drainage. Temporary provisions should be made during the rainy season to adequately direct surface drainage away from and off the work site. Where low areas cannot be avoided, pumps should be kept on hand to continually remove water during periods of rainfall.

Rain related damage should be considered to include, but may not be limited to, erosion, silting, saturation, swelling, structural distress and other adverse conditions as determined by the geotechnical consultant. Soil adversely affected should be classified as unsuitable materials and should be subject to overexcavation and replacement with compacted fill or other remedial grading as recommended by the geotechnical consultant.

The contractor should be responsible for the stability of all temporary excavations. Recommendations by the geotechnical consultant pertaining to temporary excavations (e.g., backcuts) are made in consideration of stability of the completed project and, therefore, should not be considered to preclude the responsibilities of the contractor. Recommendations by the geotechnical consultant should not be considered to preclude requirements that are more restrictive by the regulating agencies. The contractor should provide during periods of extensive rainfall plastic sheeting to prevent unprotected slopes from becoming saturated and unstable. When deemed appropriate by the geotechnical consultant or governing agencies the contractor shall install checkdams, desilting basins, sand bags or other drainage control measures.

In relatively level areas and/or slope areas, where saturated soil and/or erosion gullies exist to depths of greater than 1.0 foot; they should be overexcavated and replaced as compacted fill in accordance with the applicable specifications. Where affected materials exist to depths of 1.0 foot or less below proposed finished grade, remedial grading by moisture conditioning in-place, followed by thorough recompaction in accordance with the applicable grading guidelines herein may be attempted. If the desired results are not achieved, all affected materials should be overexcavated and replaced as compacted fill in accordance with the slope repair recommendations herein. If field conditions dictate, the geotechnical consultant may recommend other slope repair procedures.

Section 6 - Excavations

6.1 Unsuitable Materials

Materials that are unsuitable should be excavated under observation and recommendations of the geotechnical consultant. Unsuitable materials include, but may not be limited to, dry, loose, soft, wet, organic compressible natural soils and fractured, weathered, soft bedrock and nonengineered or otherwise deleterious fill materials.

Material identified by the geotechnical consultant as unsatisfactory due to its moisture conditions should be overexcavated; moisture conditioned as needed, to a uniform at or above optimum moisture condition before placement as compacted fill.

If during the course of grading adverse geotechnical conditions are exposed which were not anticipated in the preliminary soil report as determined by the geotechnical consultant additional exploration, analysis, and treatment of these problems may be recommended.

6.2 Cut Slopes

Unless otherwise recommended by the geotechnical consultant and approved by the regulating agencies, permanent cut slopes should not be steeper than 2:1 (horizontal: vertical).

The geotechnical consultant should observe cut slope excavation and if these excavations expose loose cohesionless, significantly fractured or otherwise unsuitable material, the materials should be overexcavated and replaced with a compacted stabilization fill. If encountered specific cross section details should be obtained from the Geotechnical Consultant.

When extensive cut slopes are excavated or these cut slopes are made in the direction of the prevailing drainage, a non-erodible diversion swale (brow ditch) should be provided at the top of the slope.

6.3 Pad Areas

All lot pad areas, including side yard terrace containing both cut and fill materials, transitions, located less than 3 feet deep should be overexcavated to a depth of 3 feet and replaced with a uniform compacted fill blanket of 3 feet. Actual depth of overexcavation may vary and should be delineated by the geotechnical consultant during grading, especially where deep or drastic transitions are present.

For pad areas created above cut or natural slopes, positive drainage should be established away from the top-of-slope. This may be accomplished utilizing a berm drainage swale and/or an appropriate pad gradient. A gradient in soil areas away from the top-of-slopes of 2 percent or greater is recommended.

Section 7 - Compacted Fill

All fill materials should have fill quality, placement, conditioning and compaction as specified below or as approved by the geotechnical consultant.

7.1 Fill Material Quality

Excavated on-site or import materials which are acceptable to the geotechnical consultant may be utilized as compacted fill, provided trash, vegetation and other deleterious materials are removed prior to placement. All import materials anticipated for use on-site should be sampled tested and approved prior to and placement is in conformance with the requirements outlined.

Rocks 12 inches in maximum and smaller may be utilized within compacted fill provided sufficient fill material is placed and thoroughly compacted over and around all rock to effectively fill rock voids. The amount of rock should not exceed 40 percent by dry weight passing the 3/4-inch sieve. The geotechnical consultant may vary those requirements as field conditions dictate.

Where rocks greater than 12 inches but less than four feet of maximum dimension are generated during grading, or otherwise desired to be placed within an engineered fill, special handling in accordance with the recommendations below. Rocks greater than four feet should be broken down or disposed off-site.

7.2 Placement of Fill

Prior to placement of fill material, the geotechnical consultant should observe and approve the area to receive fill. After observation and approval, the exposed ground surface should be scarified to a depth of 6 to 8 inches. The scarified material should be conditioned (i.e. moisture added or air dried by continued discing) to achieve a moisture content at or slightly above optimum moisture conditions and compacted to a minimum of 90 percent of the maximum density or as otherwise recommended in the soils report or by appropriate government agencies.

Compacted fill should then be placed in thin horizontal lifts not exceeding eight inches in loose thickness prior to compaction. Each lift should be moisture conditioned as needed, thoroughly blended to achieve a consistent moisture content at or slightly above optimum and thoroughly compacted by mechanical methods to a minimum of 90 percent of laboratory maximum dry density. Each lift should be treated in a like manner until the desired finished grades are achieved.

The contractor should have suitable and sufficient mechanical compaction equipment and watering apparatus on the job site to handle the amount of fill being placed in consideration of moisture retention properties of the materials and weather conditions.

When placing fill in horizontal lifts adjacent to areas sloping steeper than 5:1 (horizontal: vertical), horizontal keys and vertical benches should be excavated into the adjacent slope area. Keying and benching should be sufficient to provide at least six-foot wide benches and a minimum of four feet of vertical bench height within the firm natural ground, firm bedrock or engineered compacted fill. No compacted fill should be placed in an area after keying and benching until the geotechnical consultant has reviewed the area. Material generated by the benching operation should be moved sufficiently away from

the bench area to allow for the recommended review of the horizontal bench prior to placement of fill.

Within a single fill area where grading procedures dictate two or more separate fills, temporary slopes (false slopes) may be created. When placing fill adjacent to a false slope, benching should be conducted in the same manner as above described. At least a 3-foot vertical bench should be established within the firm core of adjacent approved compacted fill prior to placement of additional fill. Benching should proceed in at least 3-foot vertical increments until the desired finished grades are achieved.

Prior to placement of additional compacted fill following an overnight or other grading delay, the exposed surface or previously compacted fill should be processed by scarification, moisture conditioning as needed to at or slightly above optimum moisture content, thoroughly blended and recompacted to a minimum of 90 percent of laboratory maximum dry density. Where unsuitable materials exist to depths of greater than one foot, the unsuitable materials should be over-excavated.

Following a period of flooding, rainfall or overwatering by other means, no additional fill should be placed until damage assessments have been made and remedial grading performed as described herein.

Rocks 12 inch in maximum dimension and smaller may be utilized in the compacted fill provided the fill is placed and thoroughly compacted over and around all rock. No oversize material should be used within 3 feet of finished pad grade and within 1 foot of other compacted fill areas. Rocks 12 inches up to four feet maximum dimension should be placed below the upper 10 feet of any fill and should not be closer than 15 feet to any slope face. These recommendations could vary as locations of improvements dictate. Where practical, oversized material should not be placed below areas where structures or deep utilities are proposed. Oversized material should be placed in windrows on a clean, overexcavated or unyielding compacted fill or firm natural ground surface. Select native or imported granular soil (S.E. 30 or higher) should be placed and thoroughly flooded over and around all windrowed rock, such that voids are filled. Windrows of oversized material should be staggered so those successive strata of oversized material are not in the same vertical plane.

It may be possible to dispose of individual larger rock as field conditions dictate and as recommended by the geotechnical consultant at the time of placement.

The contractor should assist the geotechnical consultant and/or his representative by digging test pits for removal determinations and/or for testing compacted fill. The contractor should provide this work at no additional cost to the owner or contractor's client.

Fill should be tested by the geotechnical consultant for compliance with the recommended relative compaction and moisture conditions. Field density testing should conform to ASTM Method of Test D 1556-00, D 2922-04. Tests should be conducted at a minimum of approximately two vertical feet or approximately 1,000 to 2,000 cubic yards of fill placed. Actual test intervals may vary as field conditions dictate. Fill found not to be in conformance with the grading recommendations should be removed or otherwise handled as recommended by the geotechnical consultant.

7.3 Fill Slopes

Unless otherwise recommended by the geotechnical consultant and approved by the regulating agencies, permanent fill slopes should not be steeper than 2:1 (horizontal: vertical).

Except as specifically recommended in these grading guidelines compacted fill slopes should be over-built two to five feet and cut back to grade, exposing the firm, compacted fill inner core. The actual amount of overbuilding may vary as field conditions dictate. If the desired results are not achieved, the existing slopes should be overexcavated and reconstructed under the guidelines of the geotechnical consultant. The degree of overbuilding shall be increased until the desired compacted slope surface condition is achieved. Care should be taken by the contractor to provide thorough mechanical compaction to the outer edge of the overbuilt slope surface.

At the discretion of the geotechnical consultant, slope face compaction may be attempted by conventional construction procedures including backrolling. The procedure must create a firmly compacted material throughout the entire depth of the slope face to the surface of the previously compacted firm fill intercore.

During grading operations, care should be taken to extend compactive effort to the outer edge of the slope. Each lift should extend horizontally to the desired finished slope surface or more as needed to ultimately established desired grades. Grade during construction should not be allowed to roll off at the edge of the slope. It may be helpful to elevate slightly the outer edge of the slope. Slough resulting from the placement of individual lifts should not be allowed to drift down over previous lifts. At intervals not

exceeding four feet in vertical slope height or the capability of available equipment, whichever is less, fill slopes should be thoroughly dozer trackrolled.

For pad areas above fill slopes, positive drainage should be established away from the top-of-slope. This may be accomplished using a berm and pad gradient of at least two percent.

Section 8 - Trench Backfill

Utility and/or other excavation of trench backfill should, unless otherwise recommended, be compacted by mechanical means. Unless otherwise recommended, the degree of compaction should be a minimum of 90 percent of the laboratory maximum density.

Within slab areas, but outside the influence of foundations, trenches up to one foot wide and two feet deep may be backfilled with sand and consolidated by jetting, flooding or by mechanical means. If on-site materials are utilized, they should be wheel-rolled, tamped or otherwise compacted to a firm condition. For minor interior trenches, density testing may be deleted or spot testing may be elected if deemed necessary, based on review of backfill operations during construction.

If utility contractors indicate that it is undesirable to use compaction equipment in close proximity to a buried conduit, the contractor may elect the utilization of light weight mechanical compaction equipment and/or shading of the conduit with clean, granular material, which should be thoroughly jetted in-place above the conduit, prior to initiating mechanical compaction procedures. Other methods of utility trench compaction may also be appropriate, upon review of the geotechnical consultant at the time of construction.

In cases where clean granular materials are proposed for use in lieu of native materials or where flooding or jetting is proposed, the procedures should be considered subject to review by the geotechnical consultant. Clean granular backfill and/or bedding are not recommended in slope areas.

Section 9 - Drainage

Where deemed appropriate by the geotechnical consultant, canyon subdrain systems should be installed in accordance with CTE's recommendations during grading.

Typical subdrains for compacted fill buttresses, slope stabilization or sidehill masses, should be installed in accordance with the specifications.

Roof, pad and slope drainage should be directed away from slopes and areas of structures to suitable disposal areas via non-erodible devices (i.e., gutters, downspouts, and concrete swales).

For drainage in extensively landscaped areas near structures, (i.e., within four feet) a minimum of 5 percent gradient away from the structure should be maintained. Pad drainage of at least 2 percent should be maintained over the remainder of the site.

Drainage patterns established at the time of fine grading should be maintained throughout the life of the project. Property owners should be made aware that altering drainage patterns could be detrimental to slope stability and foundation performance.

Section 10 - Slope Maintenance

10.1 - Landscape Plants

To enhance surficial slope stability, slope planting should be accomplished at the completion of grading. Slope planting should consist of deep-rooting vegetation requiring little watering. Plants native to the southern California area and plants relative to native plants are generally desirable. Plants native to other semi-arid and arid areas may also be appropriate. A Landscape Architect should be the best party to consult regarding actual types of plants and planting configuration.

10.2 - Irrigation

Irrigation pipes should be anchored to slope faces, not placed in trenches excavated into slope faces.

Slope irrigation should be minimized. If automatic timing devices are utilized on irrigation systems, provisions should be made for interrupting normal irrigation during periods of rainfall.

10.3 - Repair

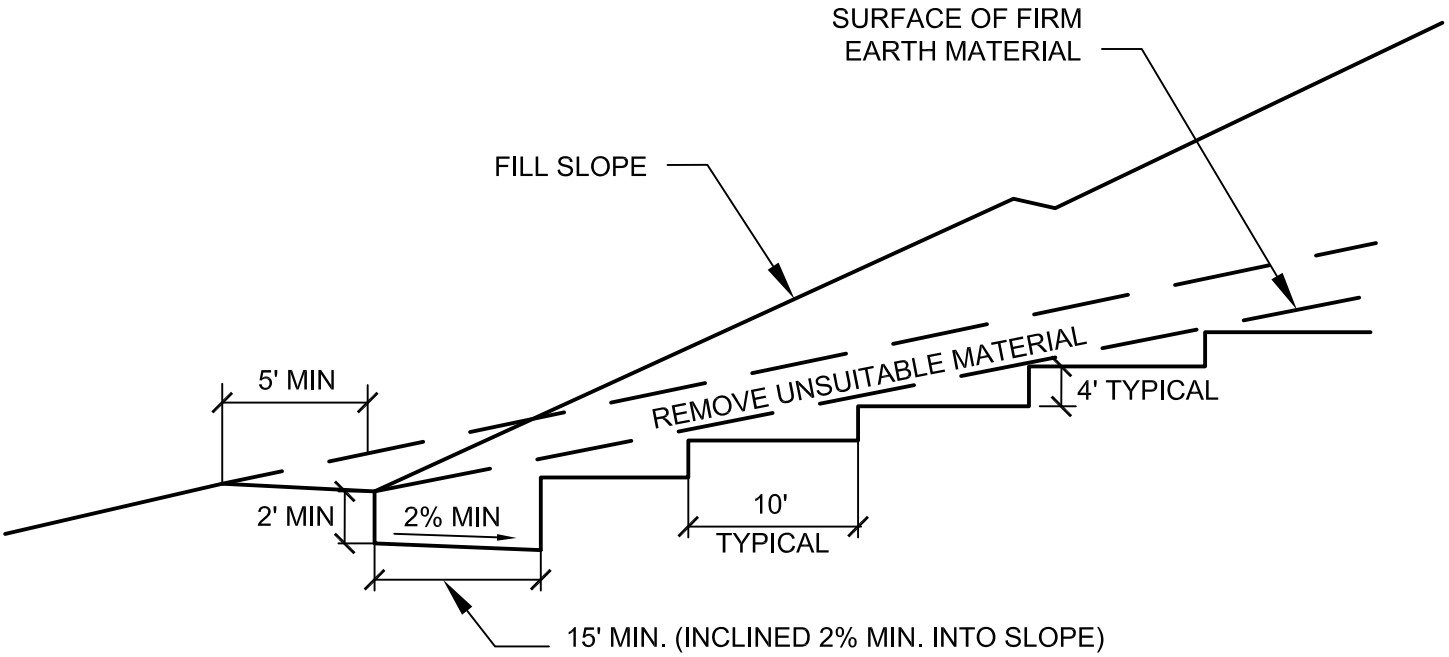
As a precautionary measure, plastic sheeting should be readily available, or kept on hand, to protect all slope areas from saturation by periods of heavy or prolonged rainfall. This measure is strongly recommended, beginning with the period prior to landscape planting.

If slope failures occur, the geotechnical consultant should be contacted for a field review of site conditions and development of recommendations for evaluation and repair.

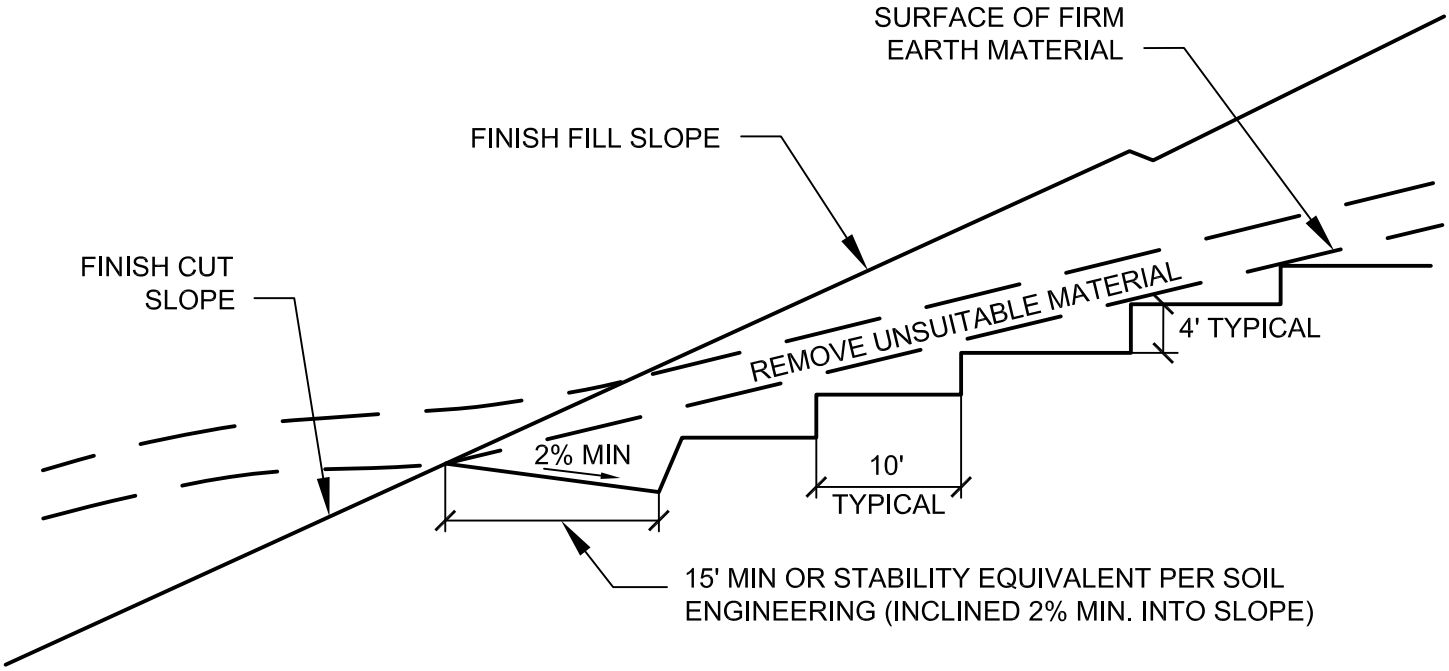
If slope failures occur as a result of exposure to period of heavy rainfall, the failure areas and currently unaffected areas should be covered with plastic sheeting to protect against additional saturation.

In the accompanying Standard Details, appropriate repair procedures are illustrated for superficial slope failures (i.e., occurring typically within the outer one foot to three feet of a slope face).

BENCHING FILL OVER NATURAL

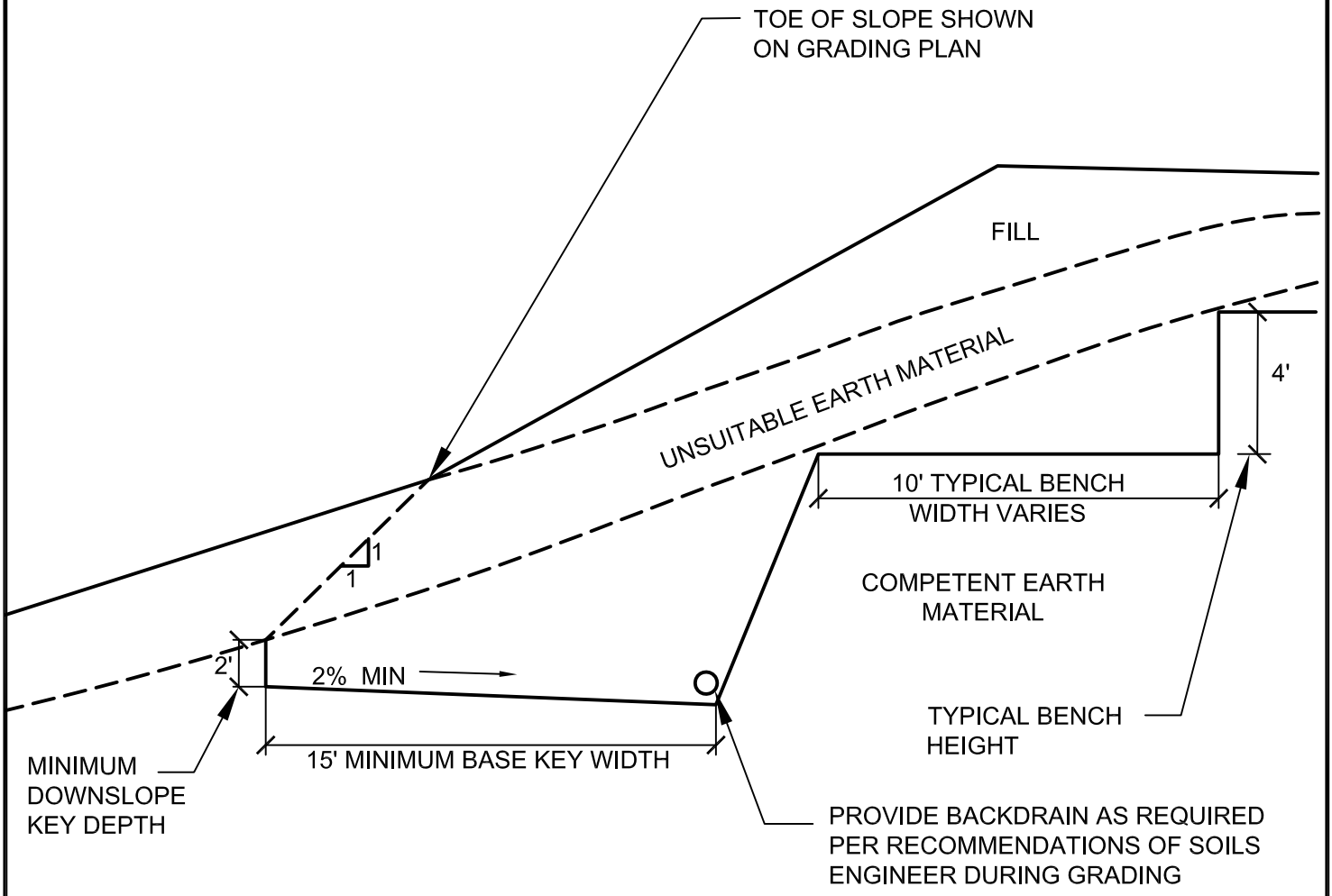


BENCHING FILL OVER CUT



NOT TO SCALE

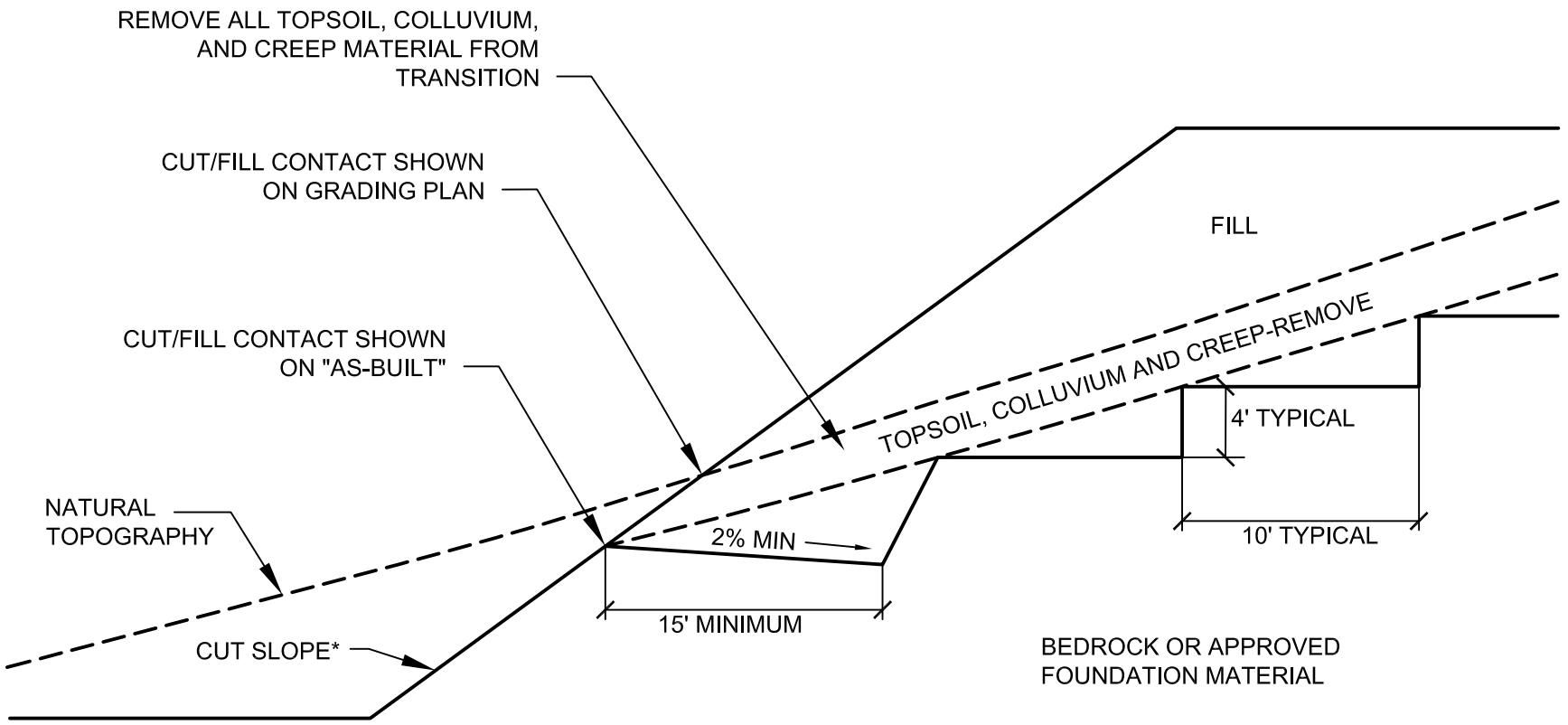
BENCHING FOR COMPACTED FILL DETAIL



WHERE NATURAL SLOPE GRADIENT IS 5:1 OR LESS, BENCHING IS NOT NECESSARY. FILL IS NOT TO BE PLACED ON COMPRESSIBLE OR UNSUITABLE MATERIAL.

NOT TO SCALE

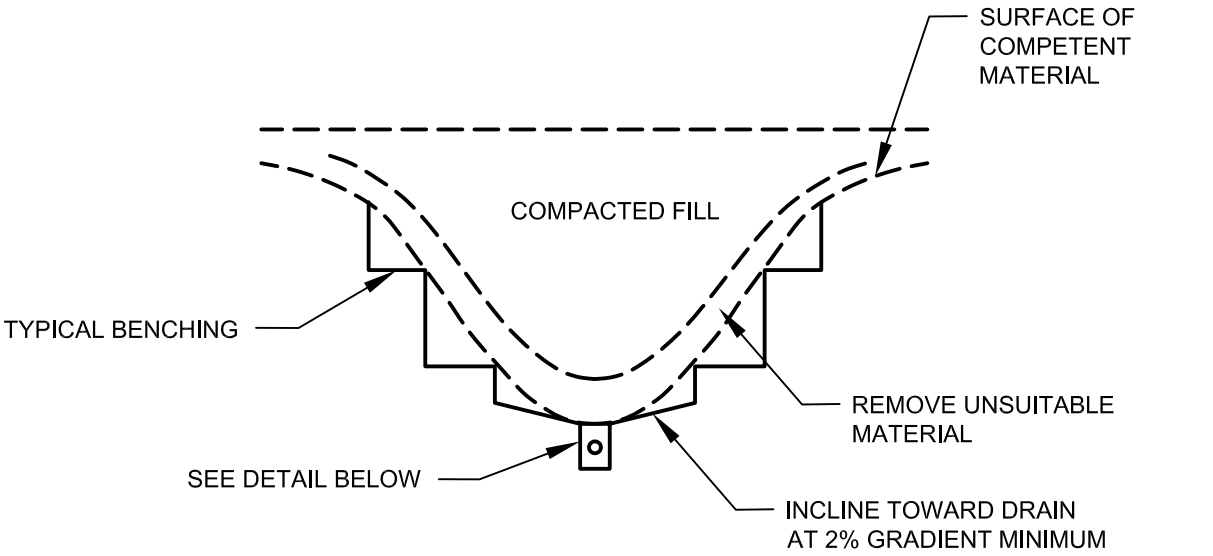
FILL SLOPE ABOVE NATURAL GROUND DETAIL



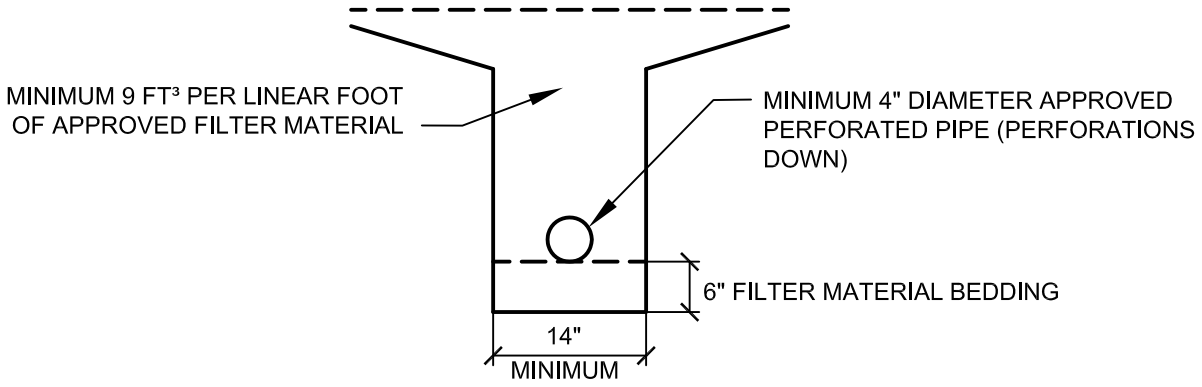
*NOTE: CUT SLOPE PORTION SHOULD BE MADE PRIOR TO PLACEMENT OF FILL

NOT TO SCALE

FILL SLOPE ABOVE CUT SLOPE DETAIL



DETAIL



CALTRANS CLASS 2 PERMEABLE MATERIAL
FILTER MATERIAL TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUAL:

SIEVE SIZE	PERCENTAGE PASSING
1"	100
¾"	90-100
⅜"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

APPROVED PIPE TO BE SCHEDULE 40 POLY-VINYL-CHLORIDE (P.V.C.) OR APPROVED EQUAL. MINIMUM CRUSH STRENGTH 1000 psi

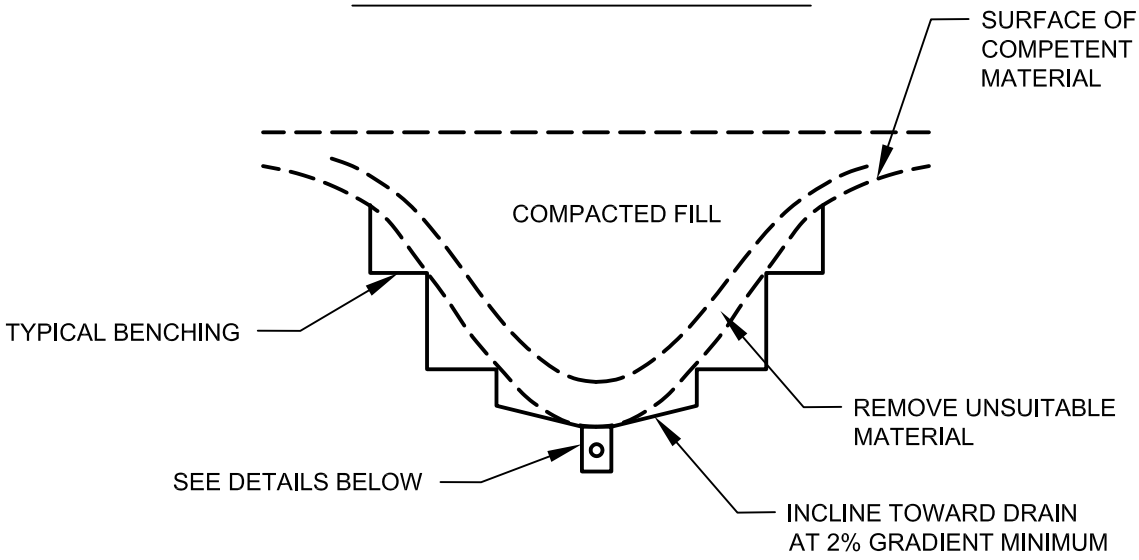
PIPE DIAMETER TO MEET THE FOLLOWING CRITERIA, SUBJECT TO FIELD REVIEW BASED ON ACTUAL GEOTECHNICAL CONDITIONS ENCOUNTERED DURING GRADING

LENGTH OF RUN	PIPE DIAMETER
INITIAL 500'	4"
500' TO 1500'	6"
> 1500'	8"

NOT TO SCALE

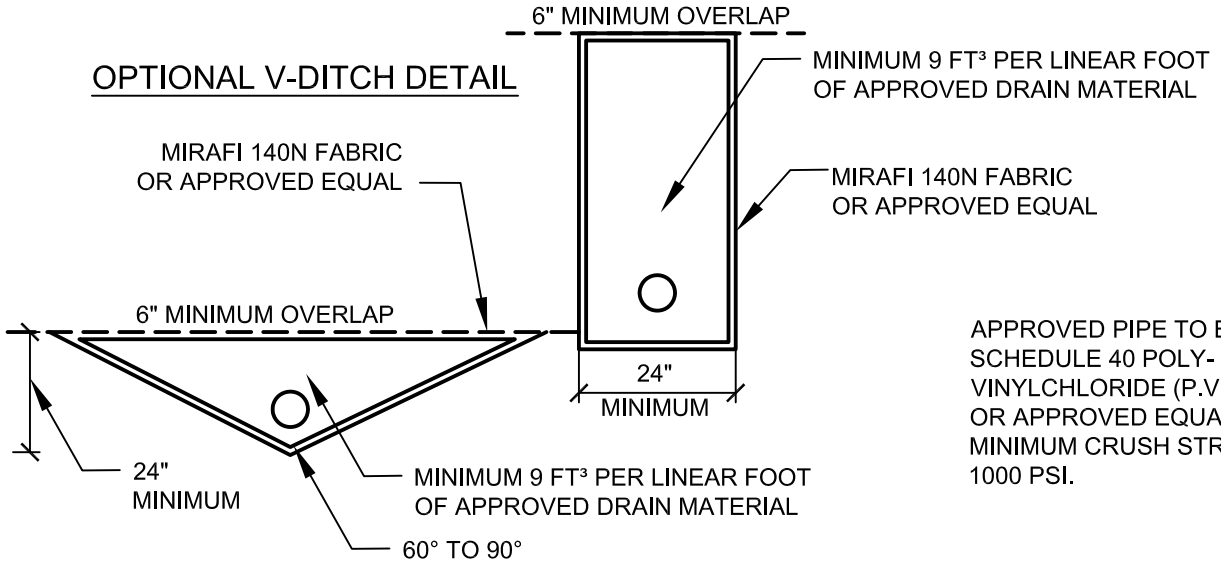
TYPICAL CANYON SUBDRAIN DETAIL

CANYON SUBDRAIN DETAILS



TRENCH DETAILS

OPTIONAL V-DITCH DETAIL



APPROVED PIPE TO BE SCHEDULE 40 POLY-VINYLCHLORIDE (P.V.C.) OR APPROVED EQUAL. MINIMUM CRUSH STRENGTH 1000 PSI.

DRAIN MATERIAL TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUAL:

SIEVE SIZE	PERCENTAGE PASSING
1 ½"	88-100
1"	5-40
¾"	0-17
⅜"	0-7
NO. 200	0-3

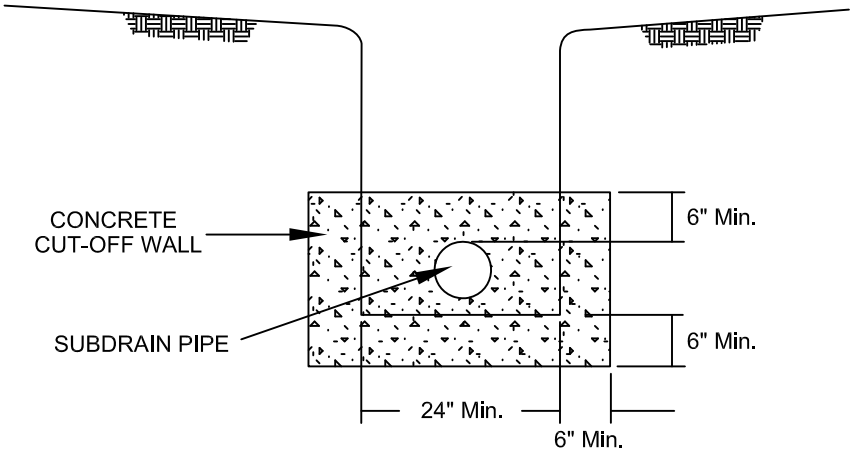
PIPE DIAMETER TO MEET THE FOLLOWING CRITERIA, SUBJECT TO FIELD REVIEW BASED ON ACTUAL GEOTECHNICAL CONDITIONS ENCOUNTERED DURING GRADING

LENGTH OF RUN	PIPE DIAMETER
INITIAL 500'	4"
500' TO 1500'	6"
> 1500'	8"

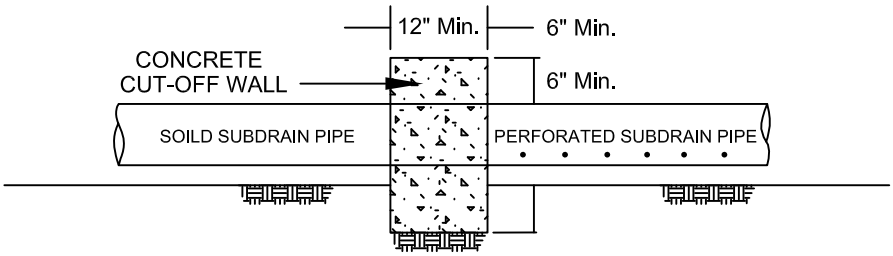
NOT TO SCALE

GEOFABRIC SUBDRAIN

FRONT VIEW



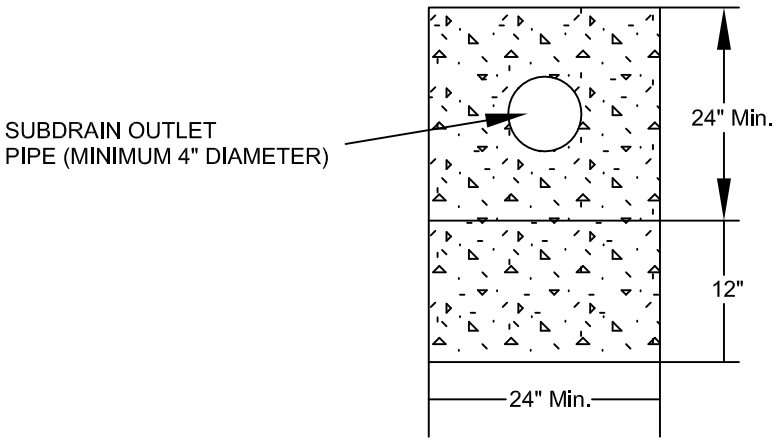
SIDE VIEW



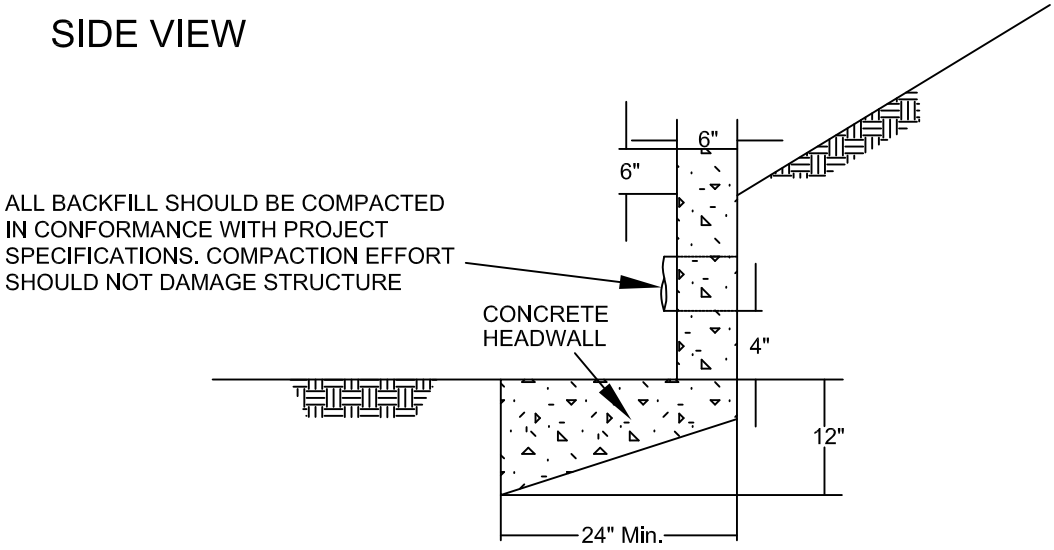
NOT TO SCALE

RECOMMENDED SUBDRAIN CUT-OFF WALL

FRONT VIEW



SIDE VIEW



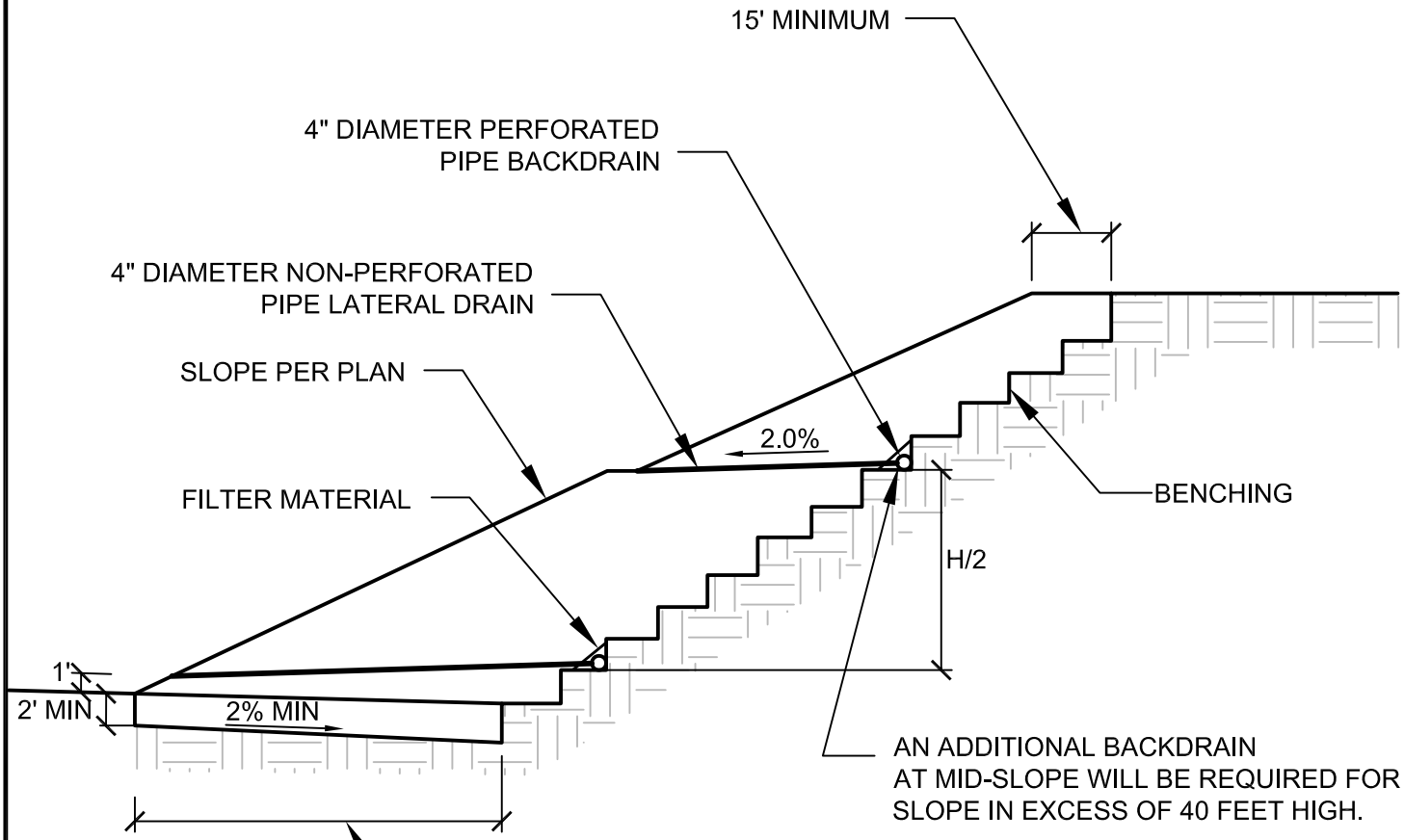
NOTE: HEADWALL SHOULD OUTLET AT TOE OF SLOPE
OR INTO CONTROLLED SURFACE DRAINAGE DEVICE

ALL DISCHARGE SHOULD BE CONTROLLED

THIS DETAIL IS A MINIMUM DESIGN AND MAY BE
MODIFIED DEPENDING UPON ENCOUNTERED
CONDITIONS AND LOCAL REQUIREMENTS

NOT TO SCALE

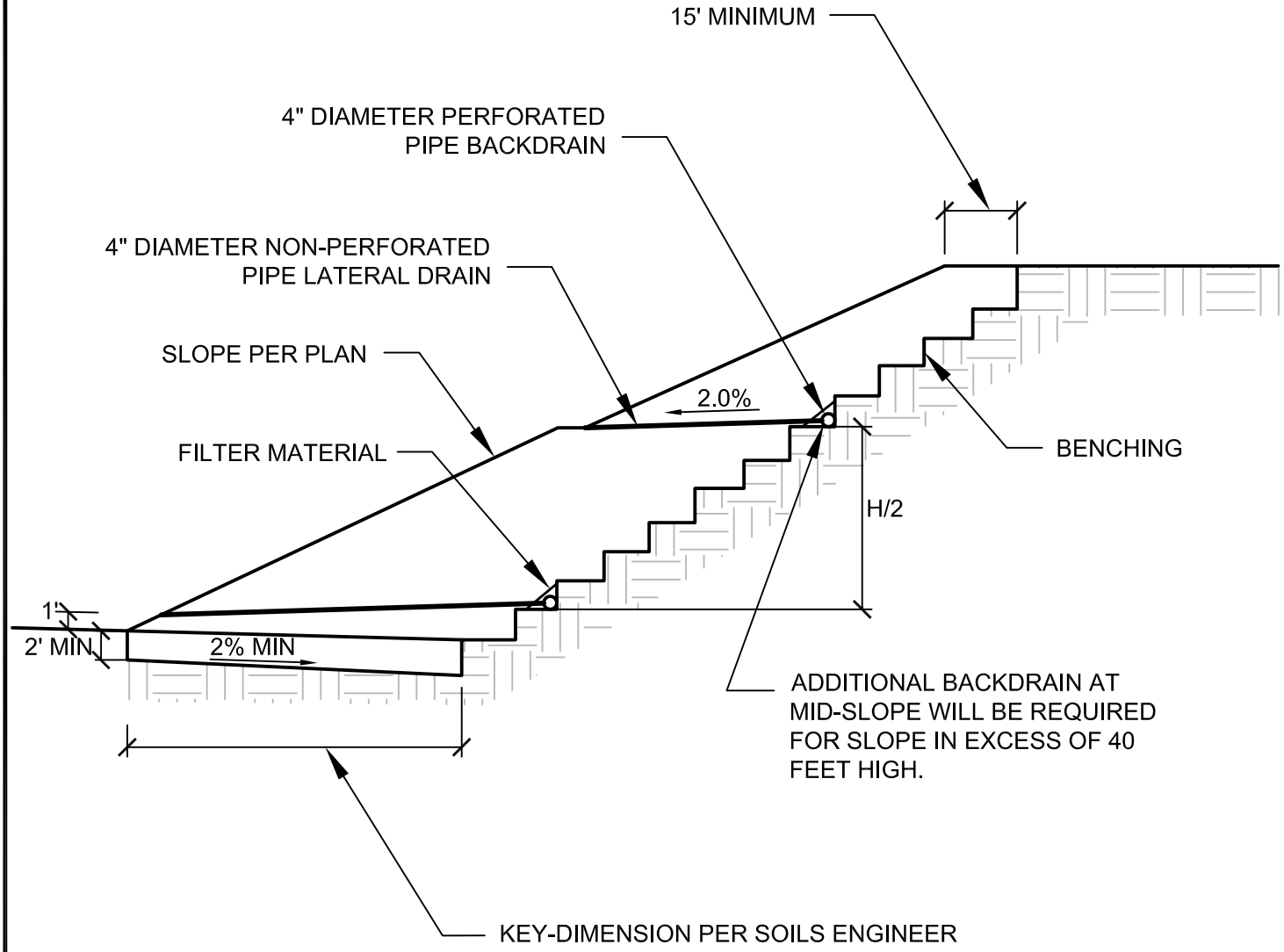
TYPICAL SUBDRAIN OUTLET HEADWALL DETAIL



DIMENSIONS ARE MINIMUM RECOMMENDED

NOT TO SCALE

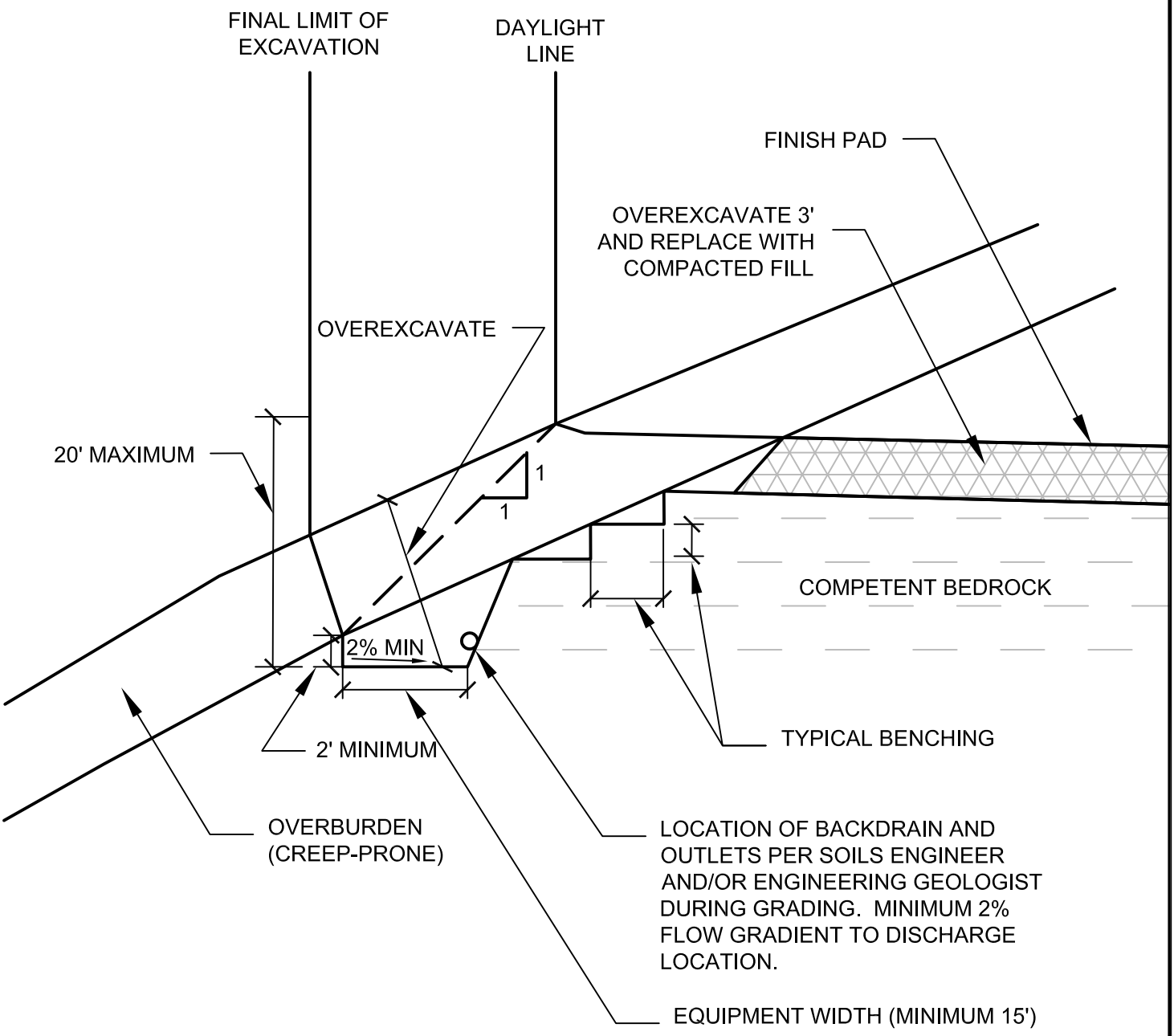
TYPICAL SLOPE STABILIZATION FILL DETAIL



DIMENSIONS ARE MINIMUM RECOMMENDED

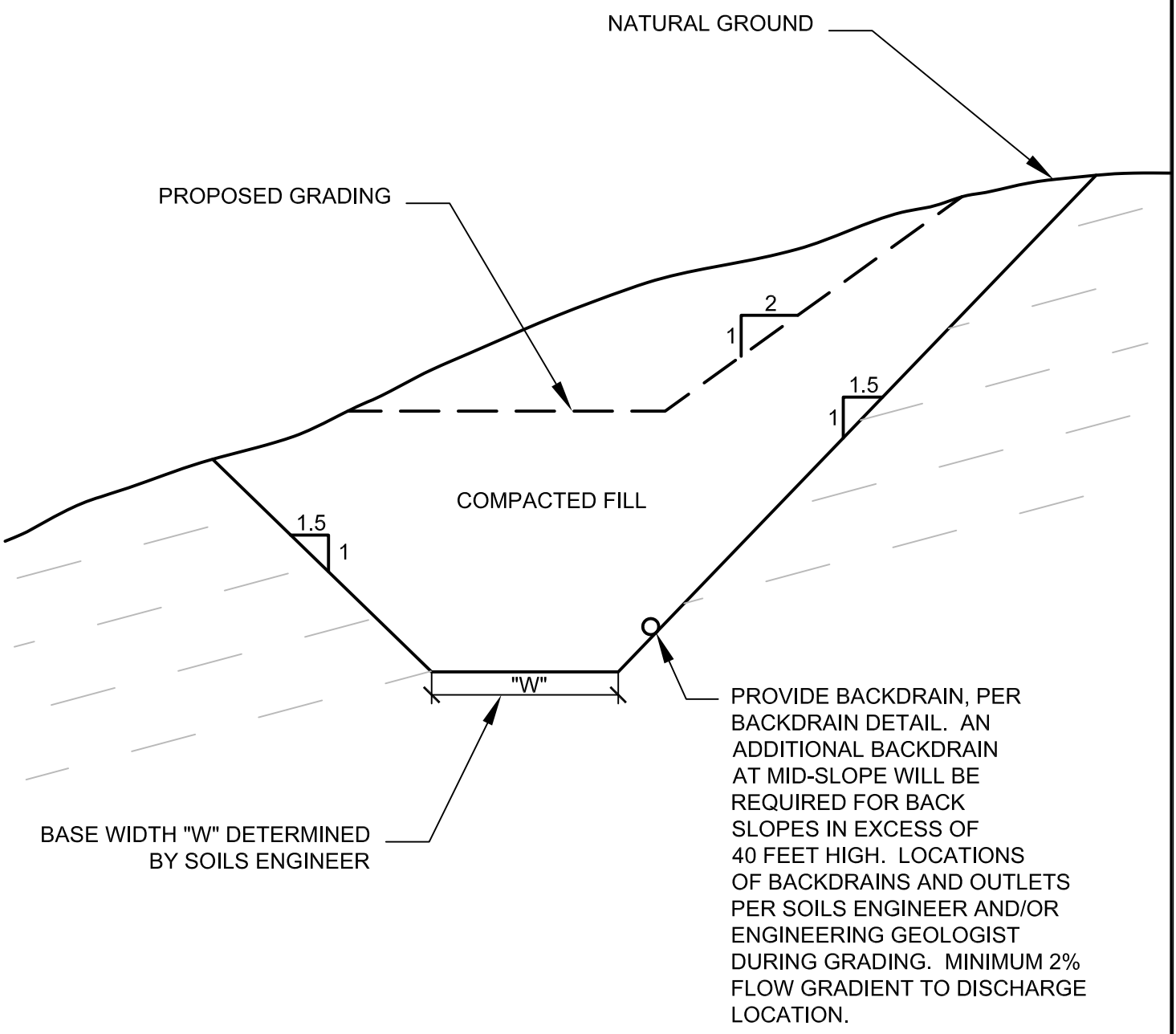
NOT TO SCALE

TYPICAL BUTTRESS FILL DETAIL



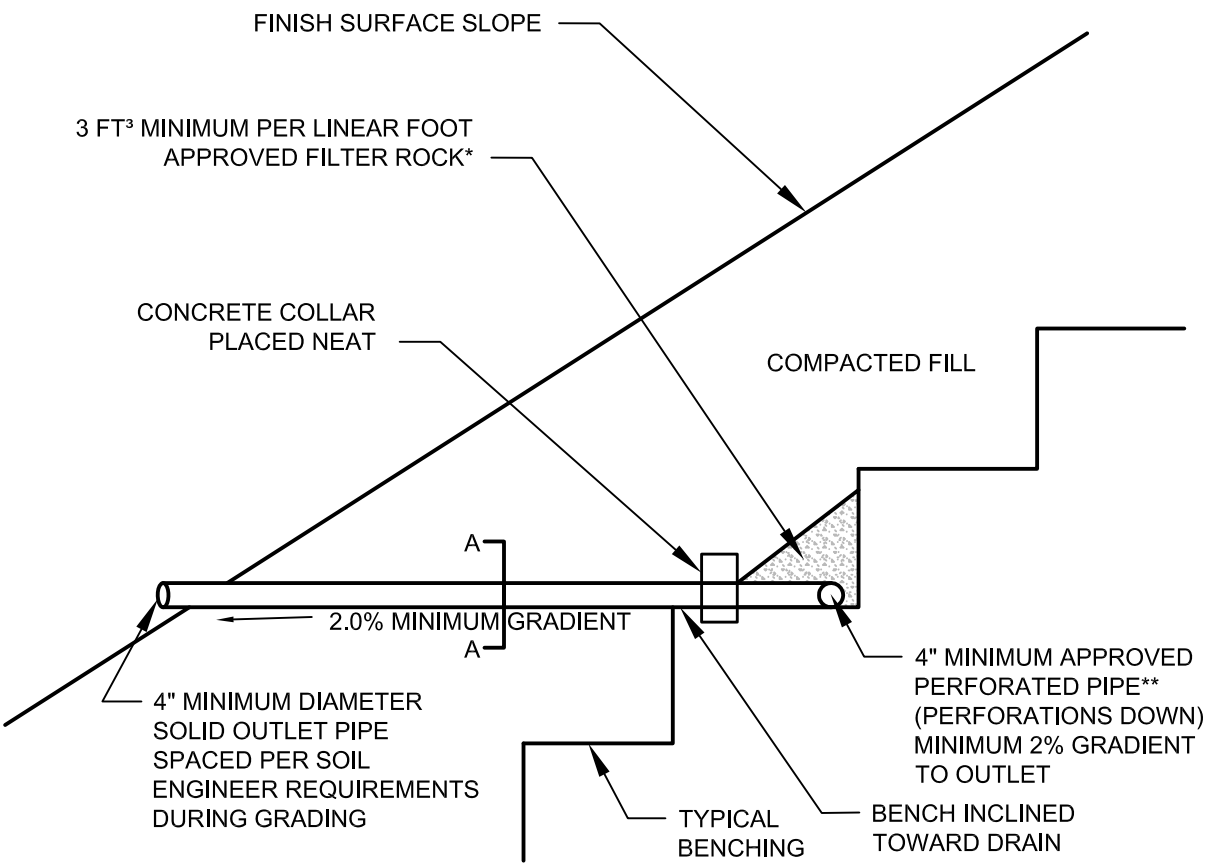
NOT TO SCALE

DAYLIGHT SHEAR KEY DETAIL

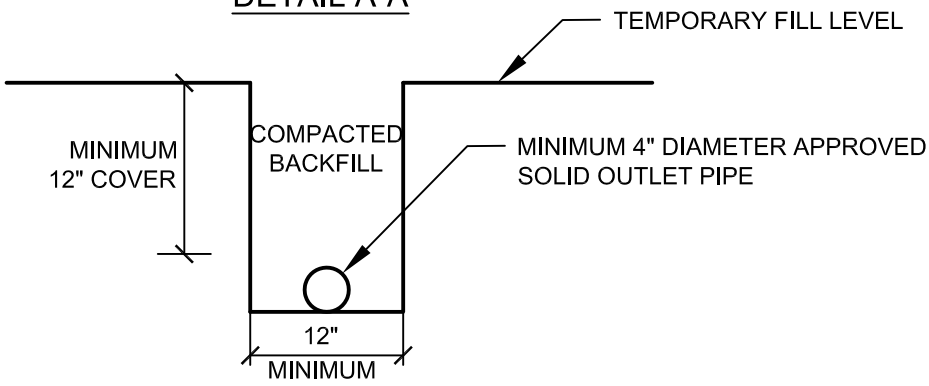


NOT TO SCALE

TYPICAL SHEAR KEY DETAIL



DETAIL A-A



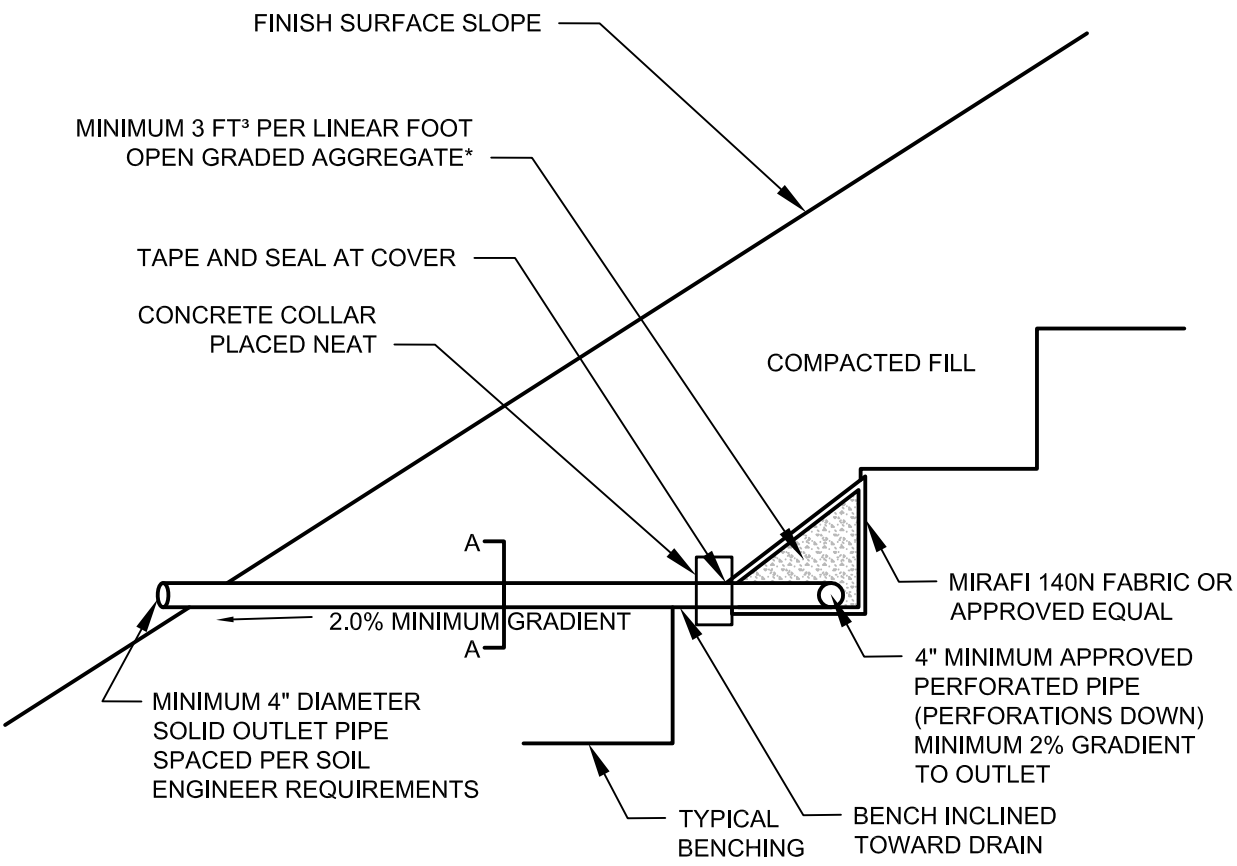
**APPROVED PIPE TYPE:
SCHEDULE 40 POLYVINYL CHLORIDE
(P.V.C.) OR APPROVED EQUAL.
MINIMUM CRUSH STRENGTH 1000 PSI

*FILTER ROCK TO MEET FOLLOWING
SPECIFICATIONS OR APPROVED EQUAL:

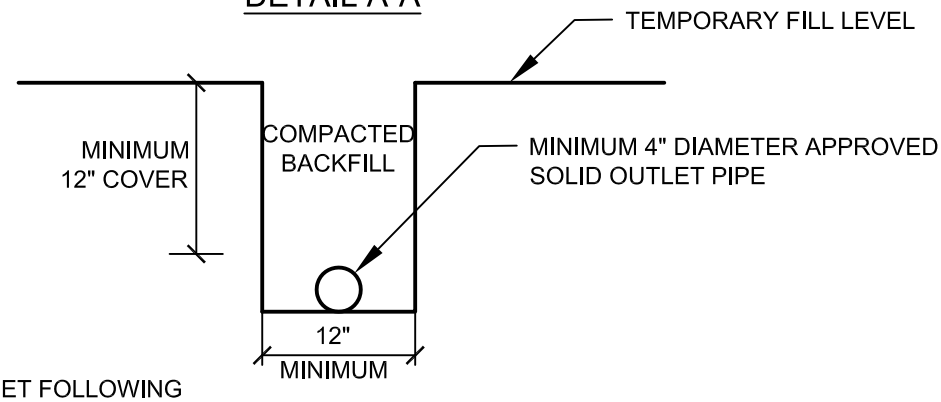
SIEVE SIZE	PERCENTAGE PASSING
1"	100
¾"	90-100
⅜"	40-100
NO. 4	25-40
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

NOT TO SCALE

TYPICAL BACKDRAIN DETAIL



DETAIL A-A

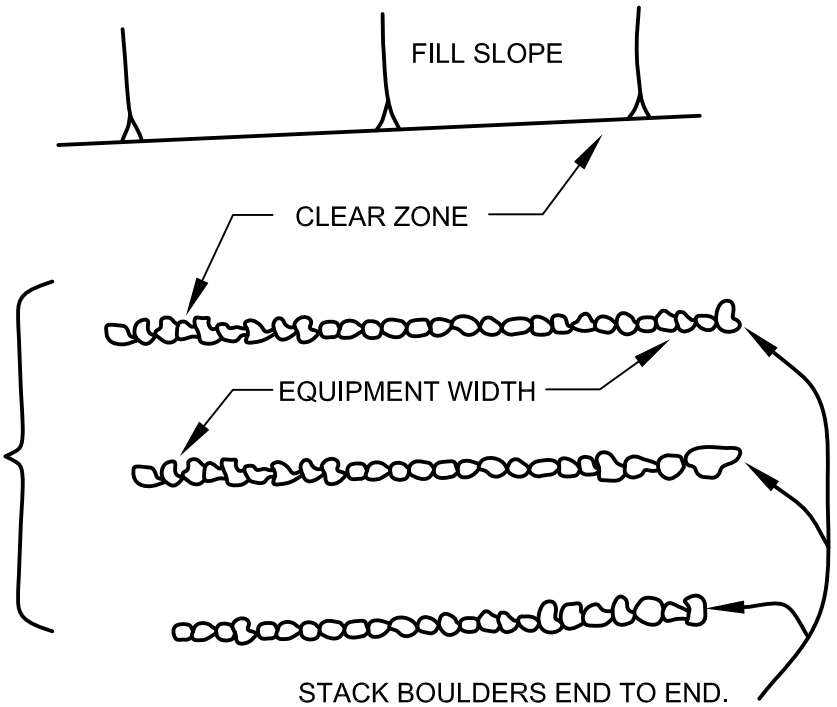


*NOTE: AGGREGATE TO MEET FOLLOWING SPECIFICATIONS OR APPROVED EQUAL:

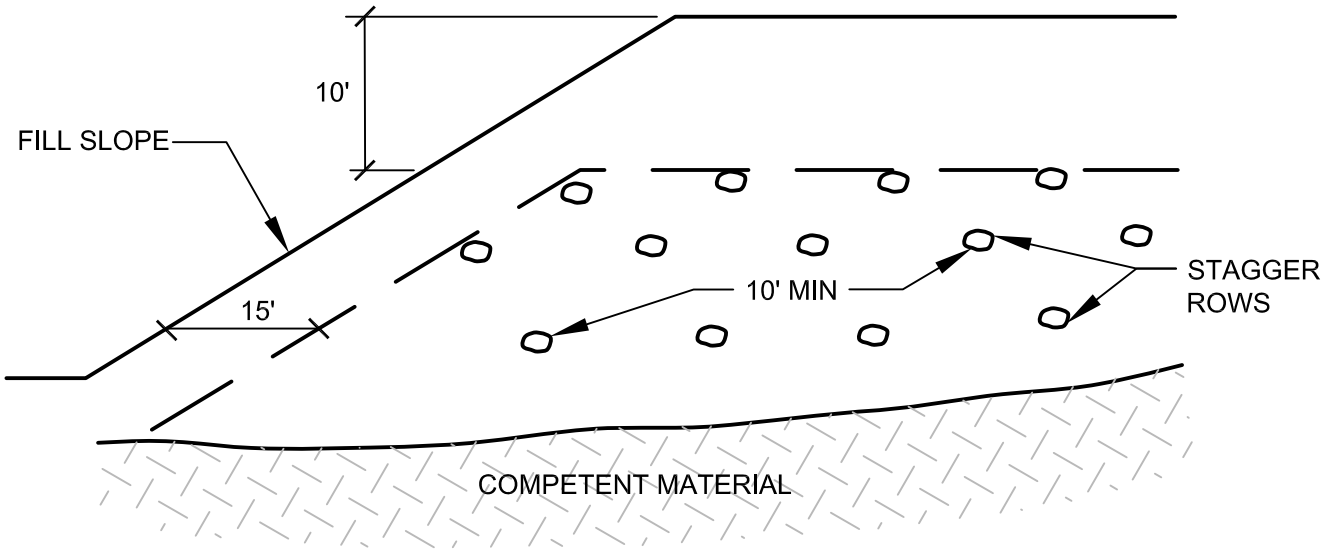
SIEVE SIZE	PERCENTAGE PASSING
1 ½"	100
1"	5-40
¾"	0-17
⅜"	0-7
NO. 200	0-3

NOT TO SCALE

BACKDRAIN DETAIL (GEOFRABIC)

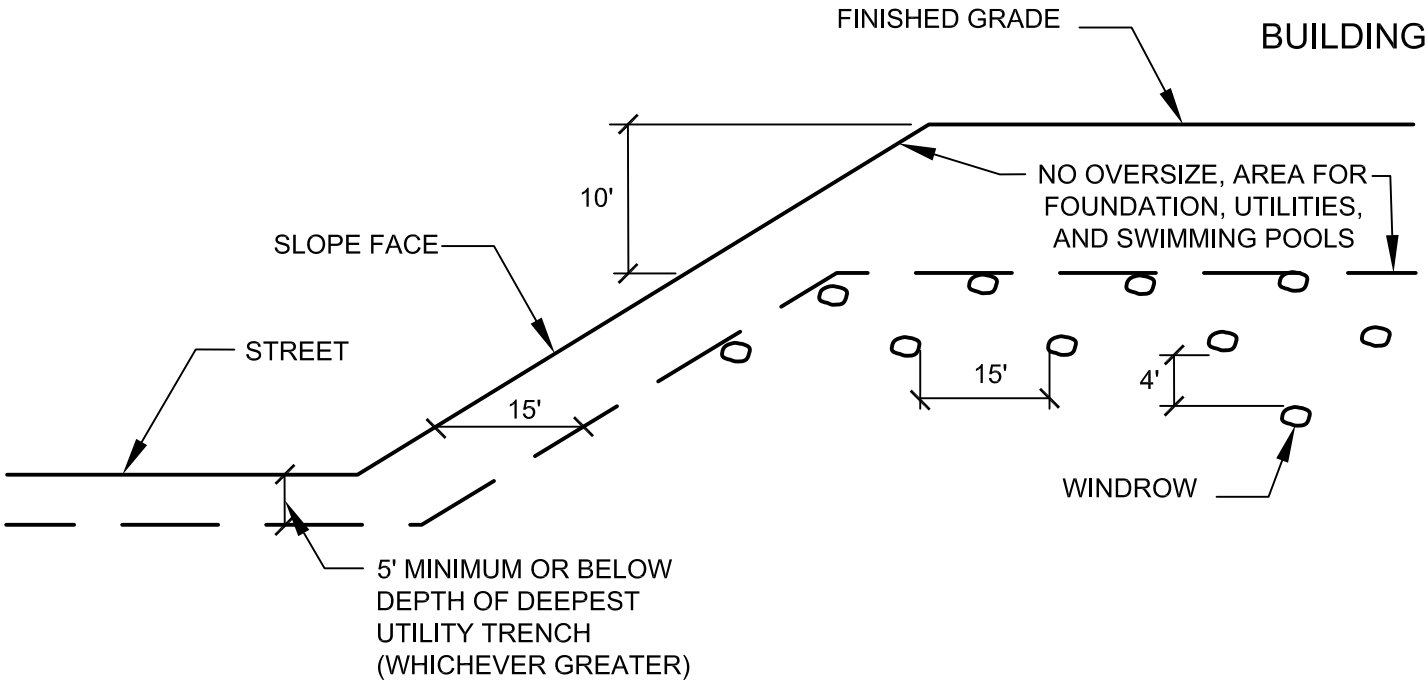


SOIL SHALL BE PUSHED OVER ROCKS AND FLOODED INTO VOIDS. COMPACT AROUND AND OVER EACH WINDROW.

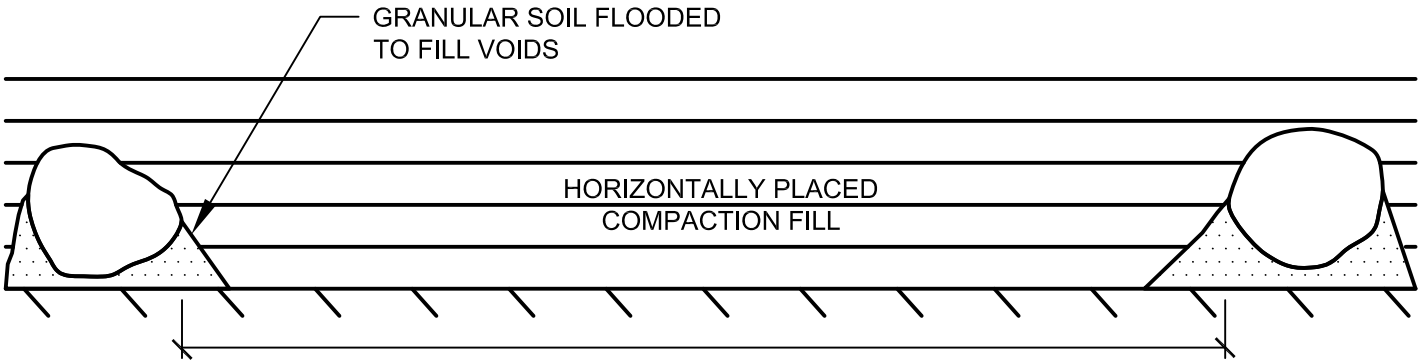


NOT TO SCALE

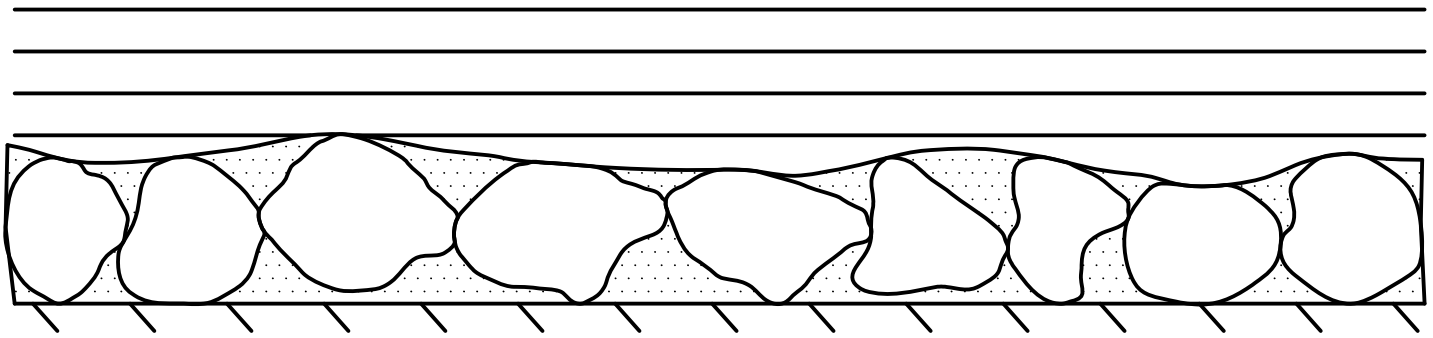
ROCK DISPOSAL DETAIL



TYPICAL WINDROW DETAIL (EDGE VIEW)



PROFILE VIEW

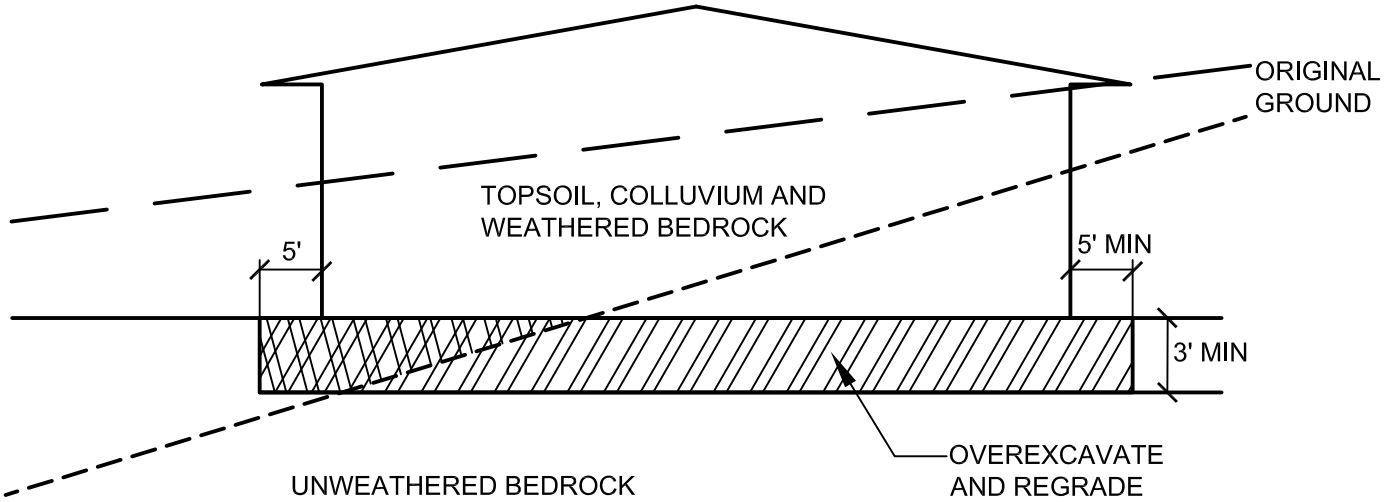


NOT TO SCALE

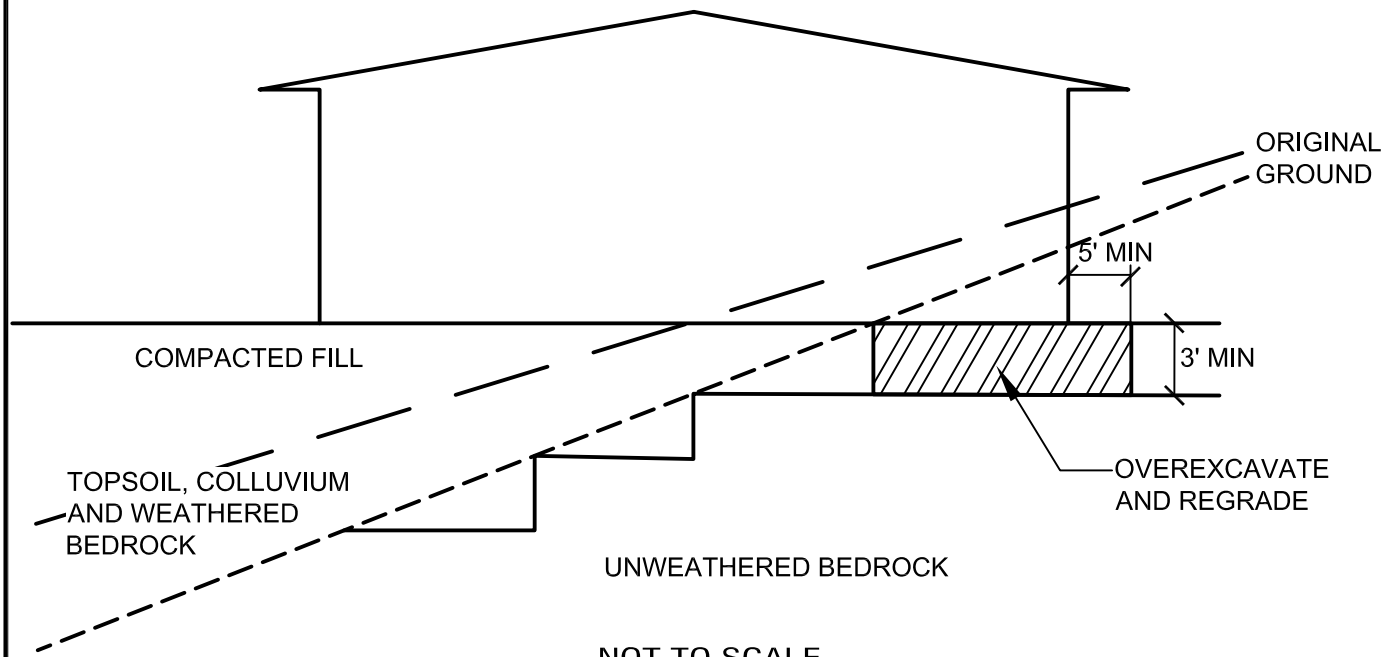
ROCK DISPOSAL DETAIL

GENERAL GRADING RECOMMENDATIONS

CUT LOT



CUT/FILL LOT (TRANSITION)



NOT TO SCALE

TRANSITION LOT DETAIL

APPENDIX E

LIQUEFACTION ANALYSIS

Construction Testing & Engineering, Inc.
1441 Montiel Road, #115
Escondido, CA 92026

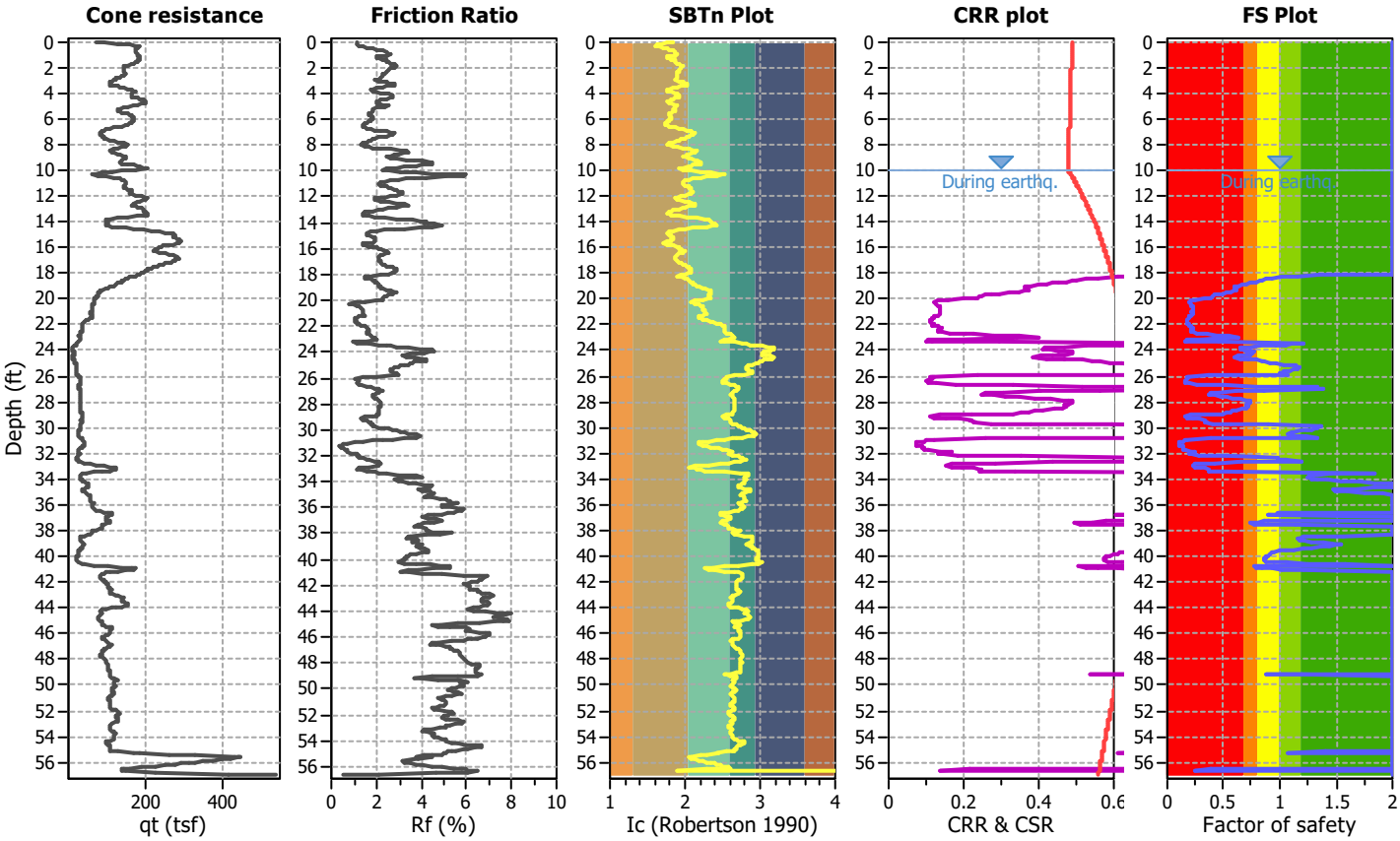
LIQUEFACTION ANALYSIS REPORT

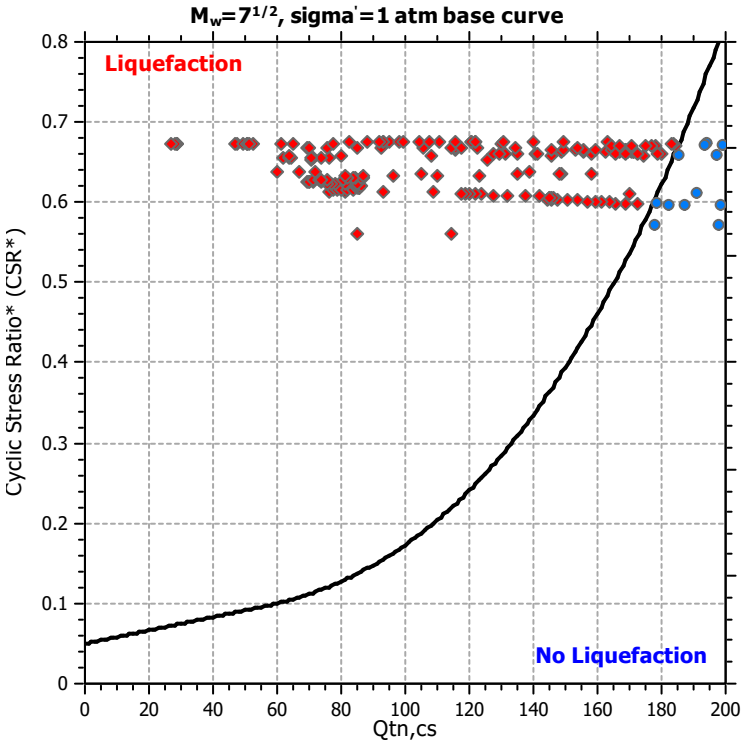
Project title : Citro Potential School Site (10-16564G) **Location : Bonsall, CA**

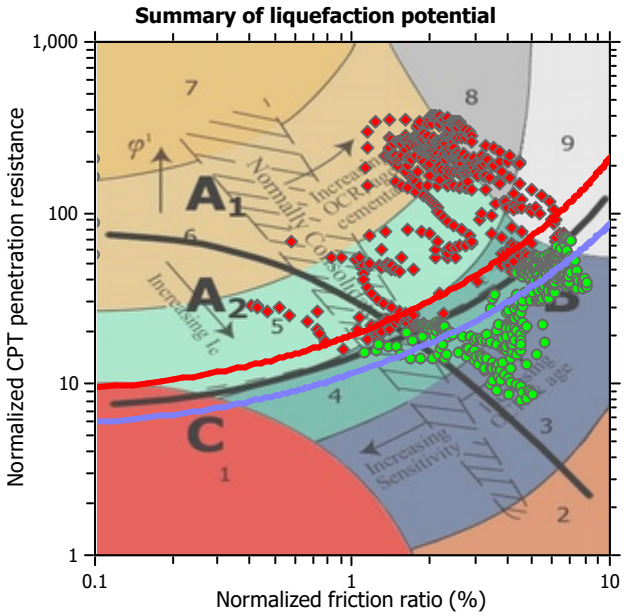
CPT file : CPT-1

Input parameters and analysis data

Analysis method:	Robertson (2009)	G.W.T. (in-situ):	23.00 ft	Use fill:	No	Clay like behavior applied:	All soils
Fines correction method:	Robertson (2009)	G.W.T. (earthq.):	10.00 ft	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	7.70	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.54	Unit weight calculation:	Based on SBT	K_σ applied:	No		

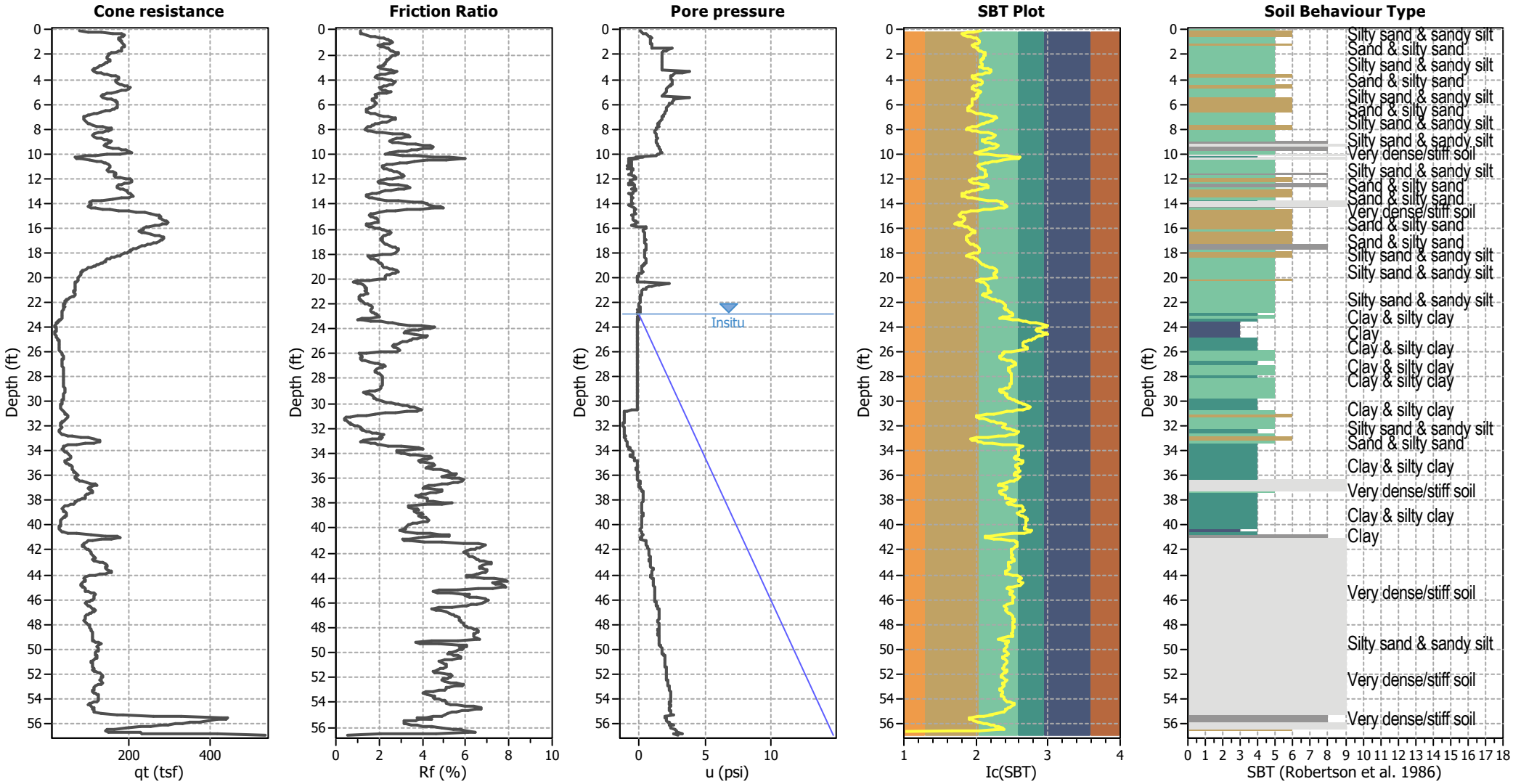






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



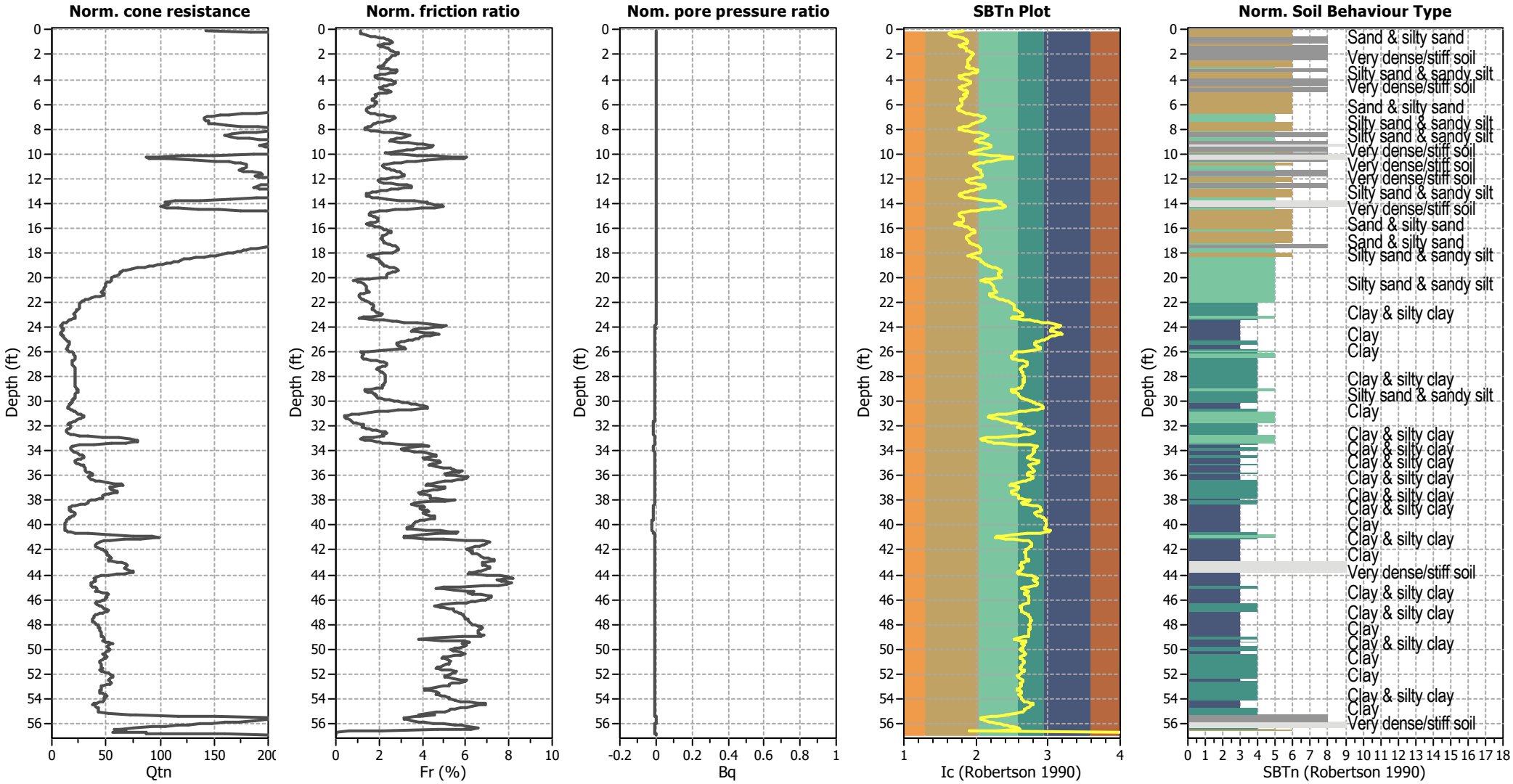
Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



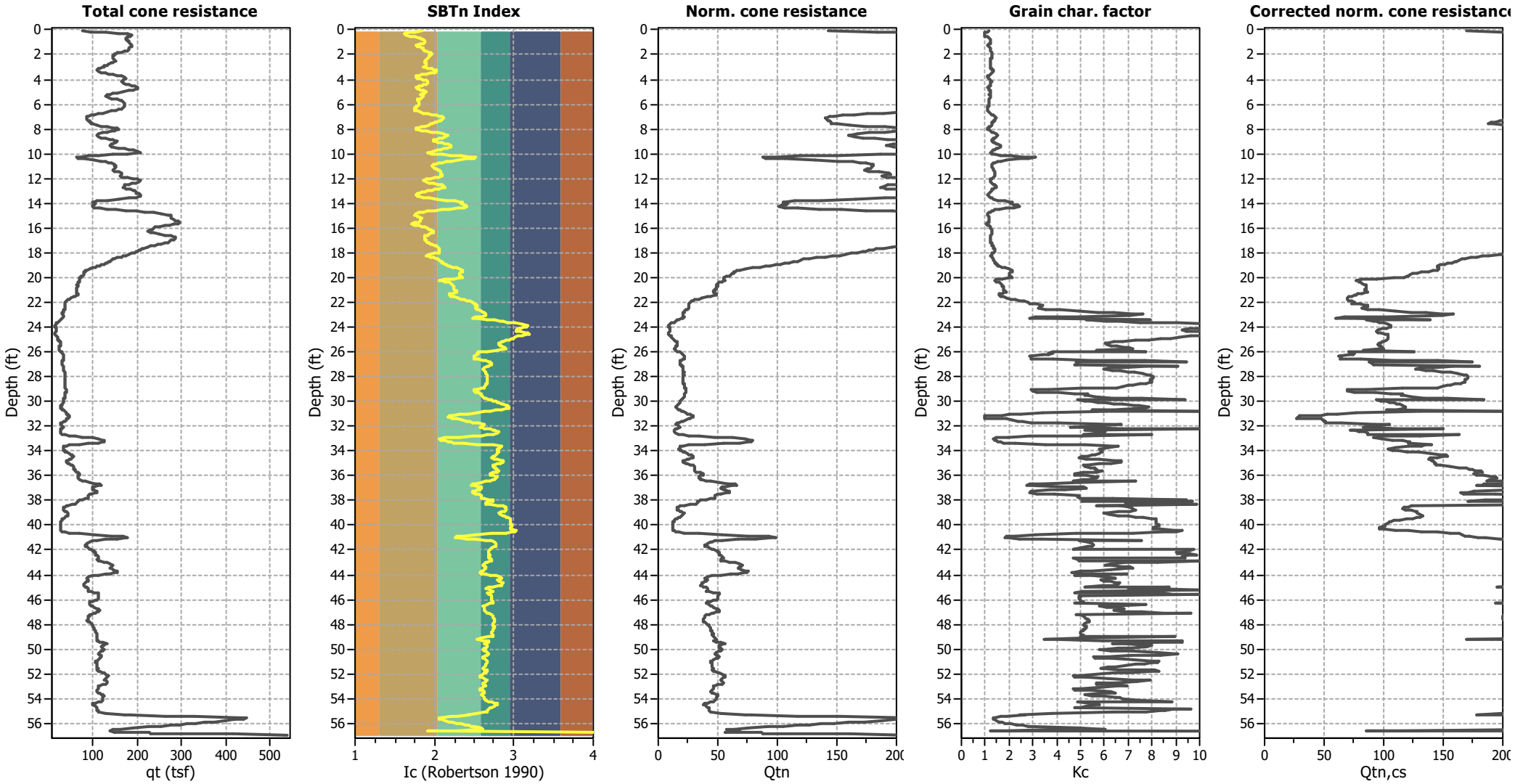
Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

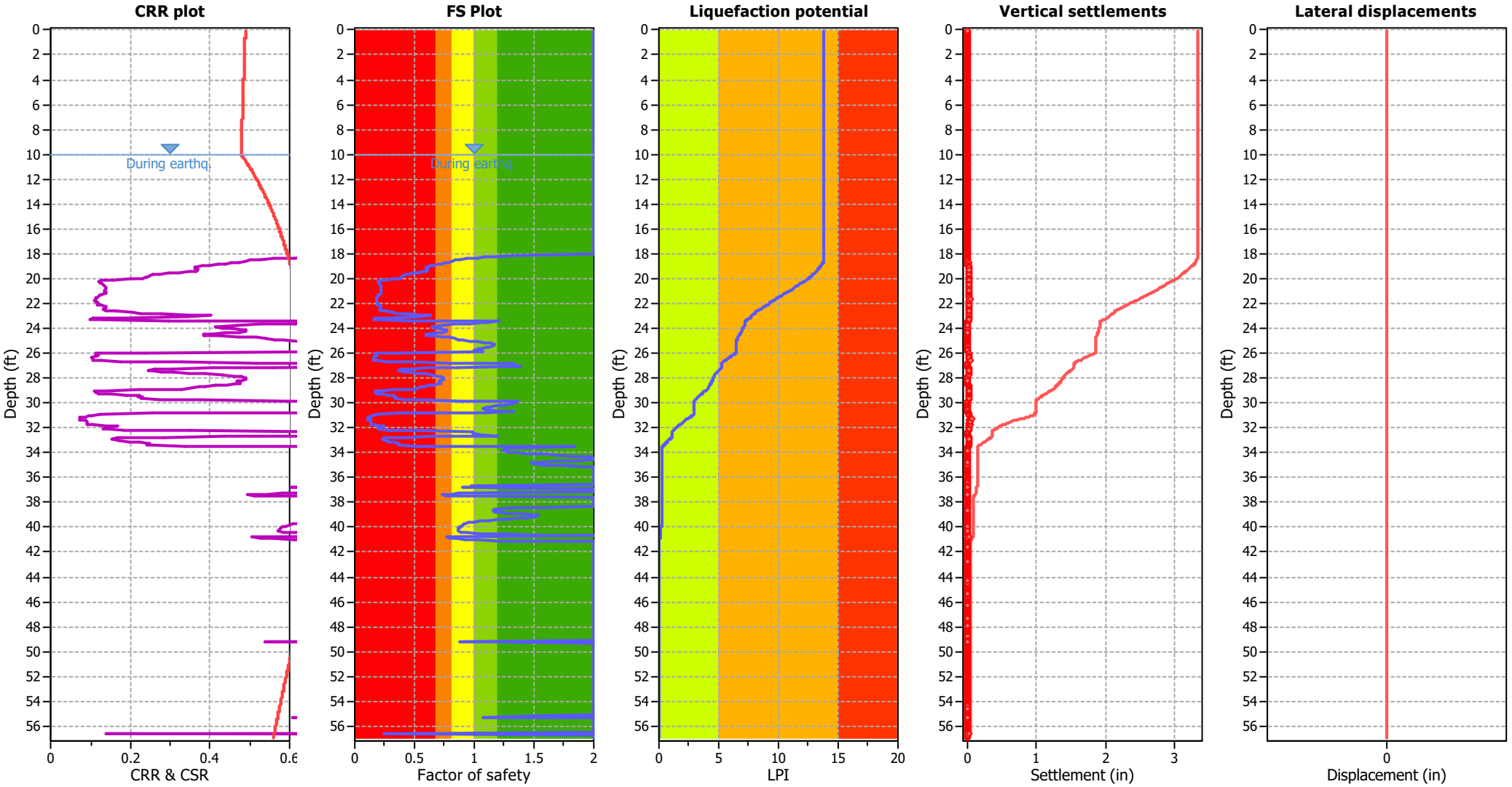
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

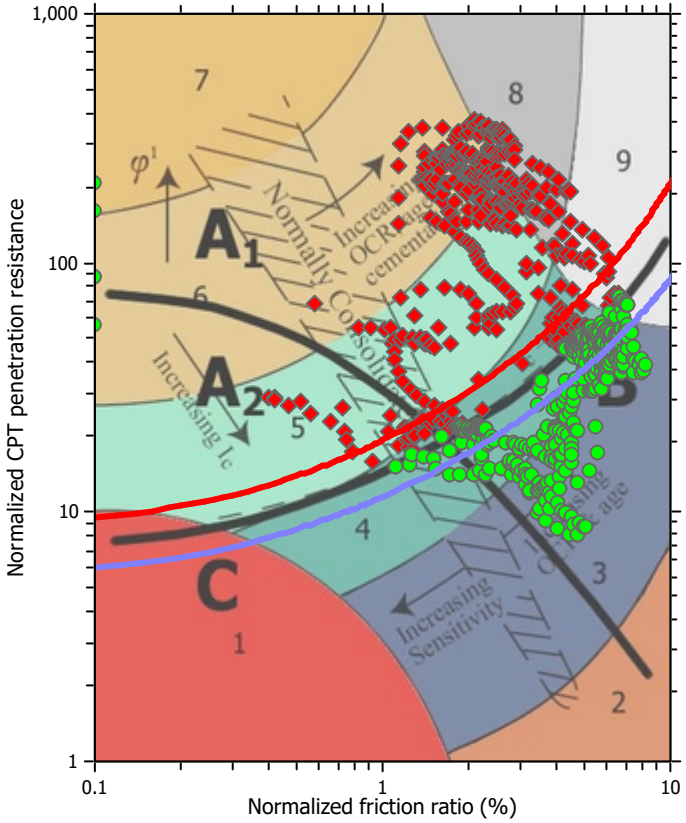
F.S. color scheme

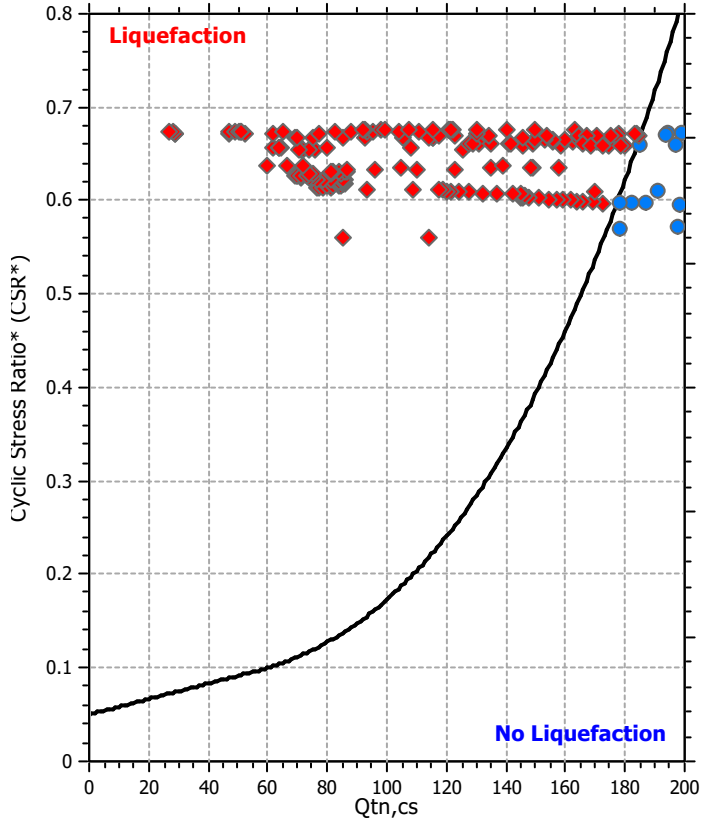
- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

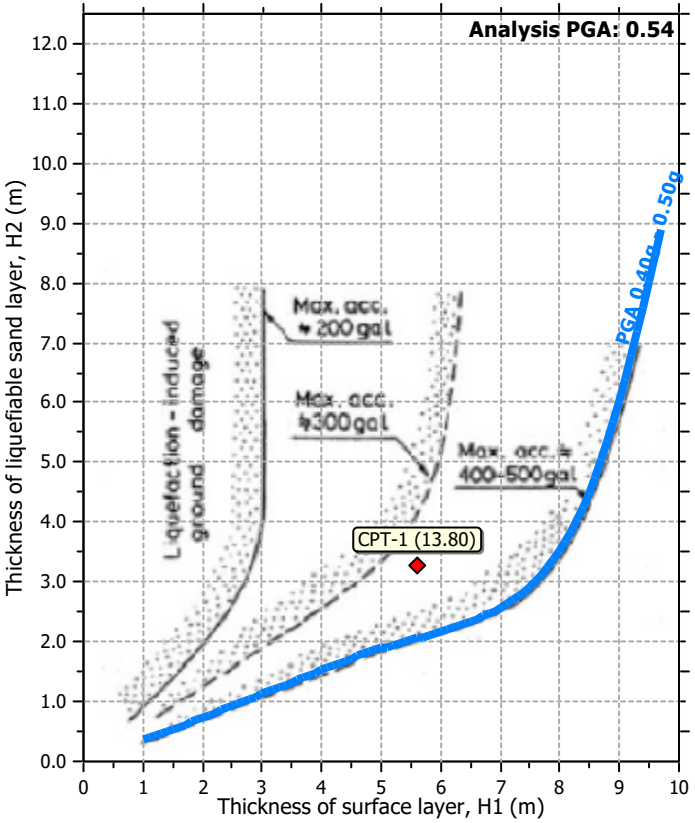
LPI color scheme

- Very high risk
- High risk
- Low risk

Liquefaction analysis summary plots



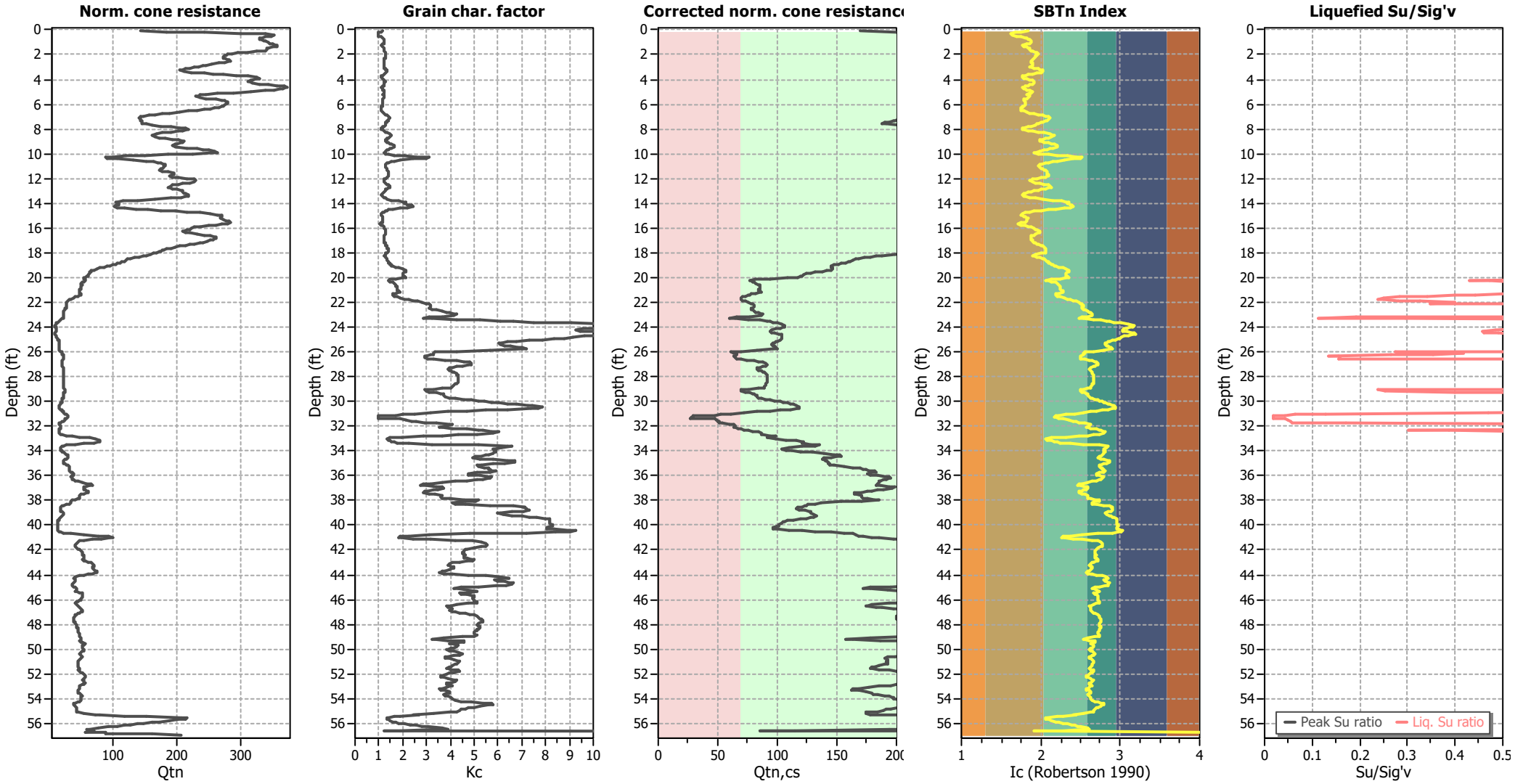




Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

Check for strength loss plots (Robertson (2010))



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

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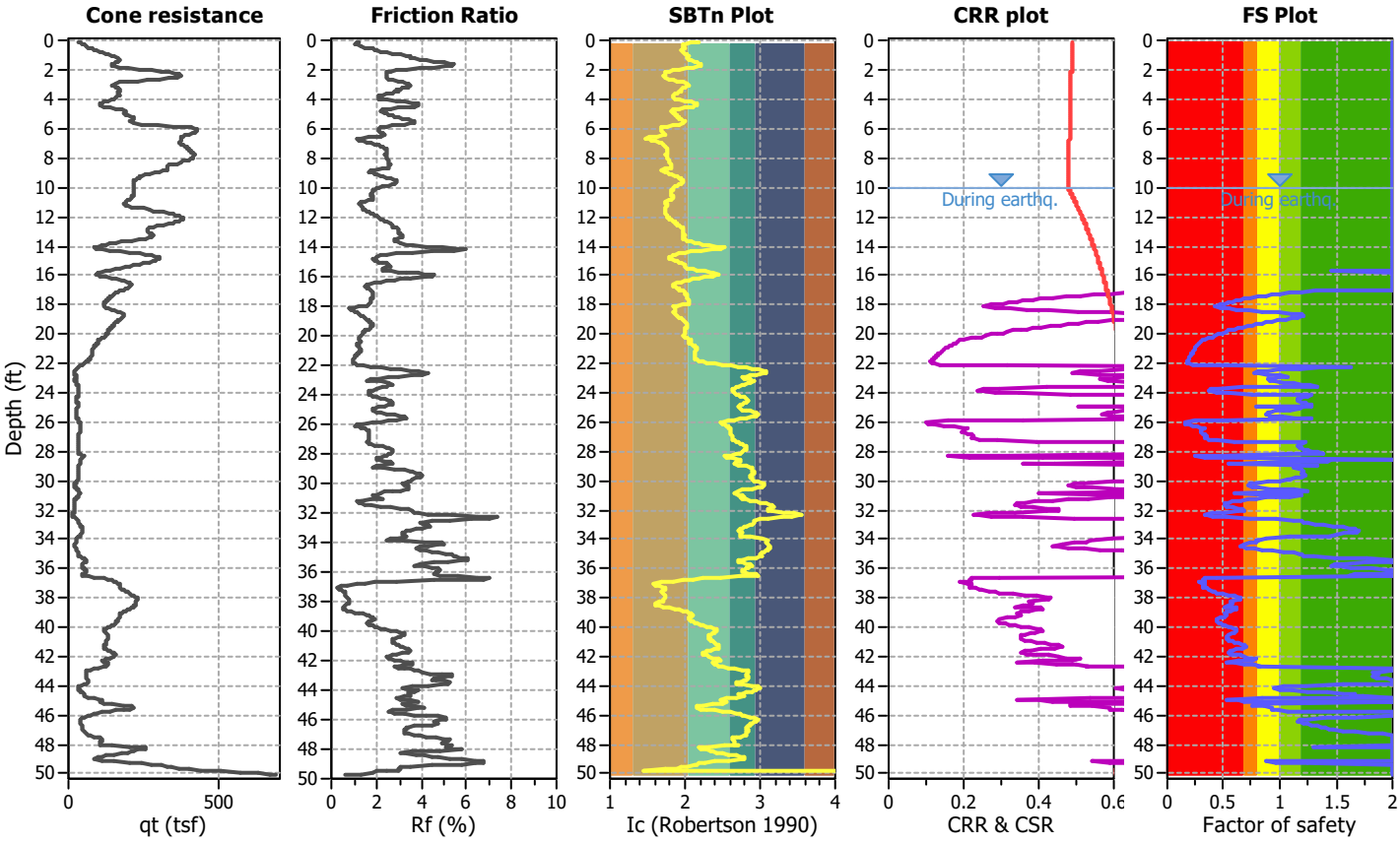
LIQUEFACTION ANALYSIS REPORT

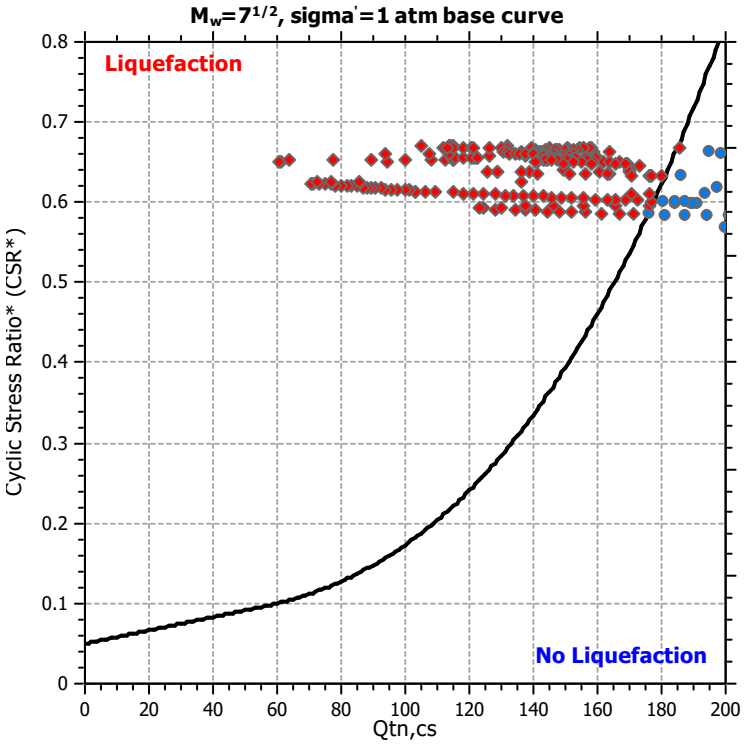
Project title : Citro Potential School Site (10-16564G) **Location : Bonsall, CA**

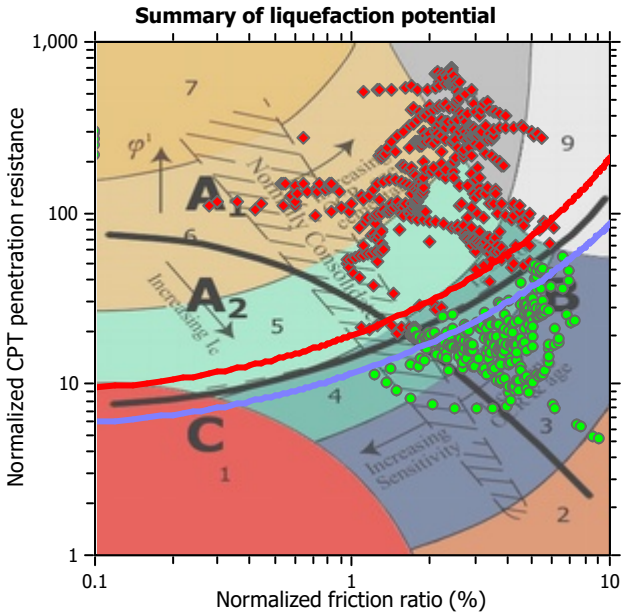
CPT file : CPT-2

Input parameters and analysis data

Analysis method:	Robertson (2009)	G.W.T. (in-situ):	23.00 ft	Use fill:	No	Clay like behavior applied:	All soils
Fines correction method:	Robertson (2009)	G.W.T. (earthq.):	10.00 ft	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	7.70	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.54	Unit weight calculation:	Based on SBT	K_σ applied:	No		

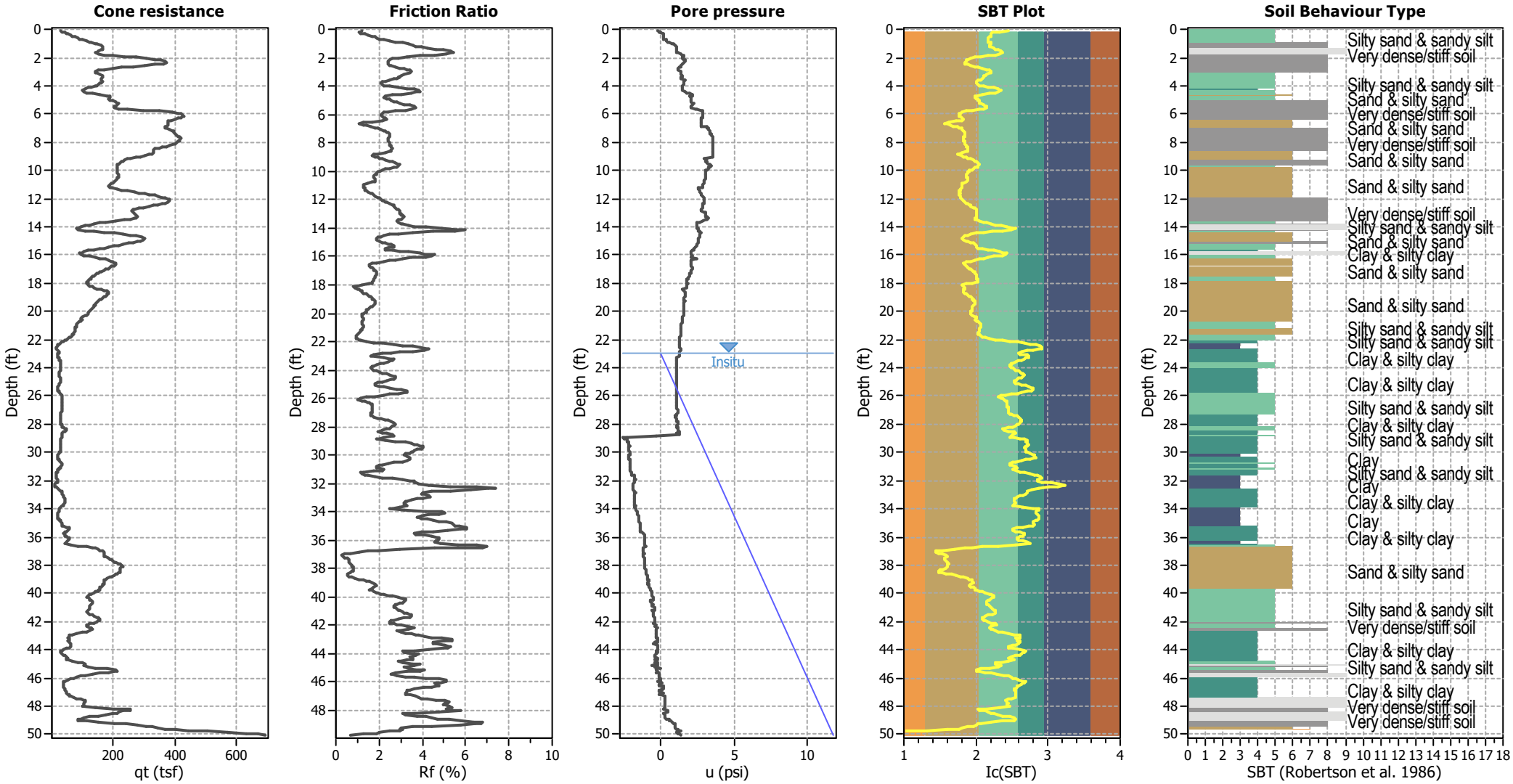






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



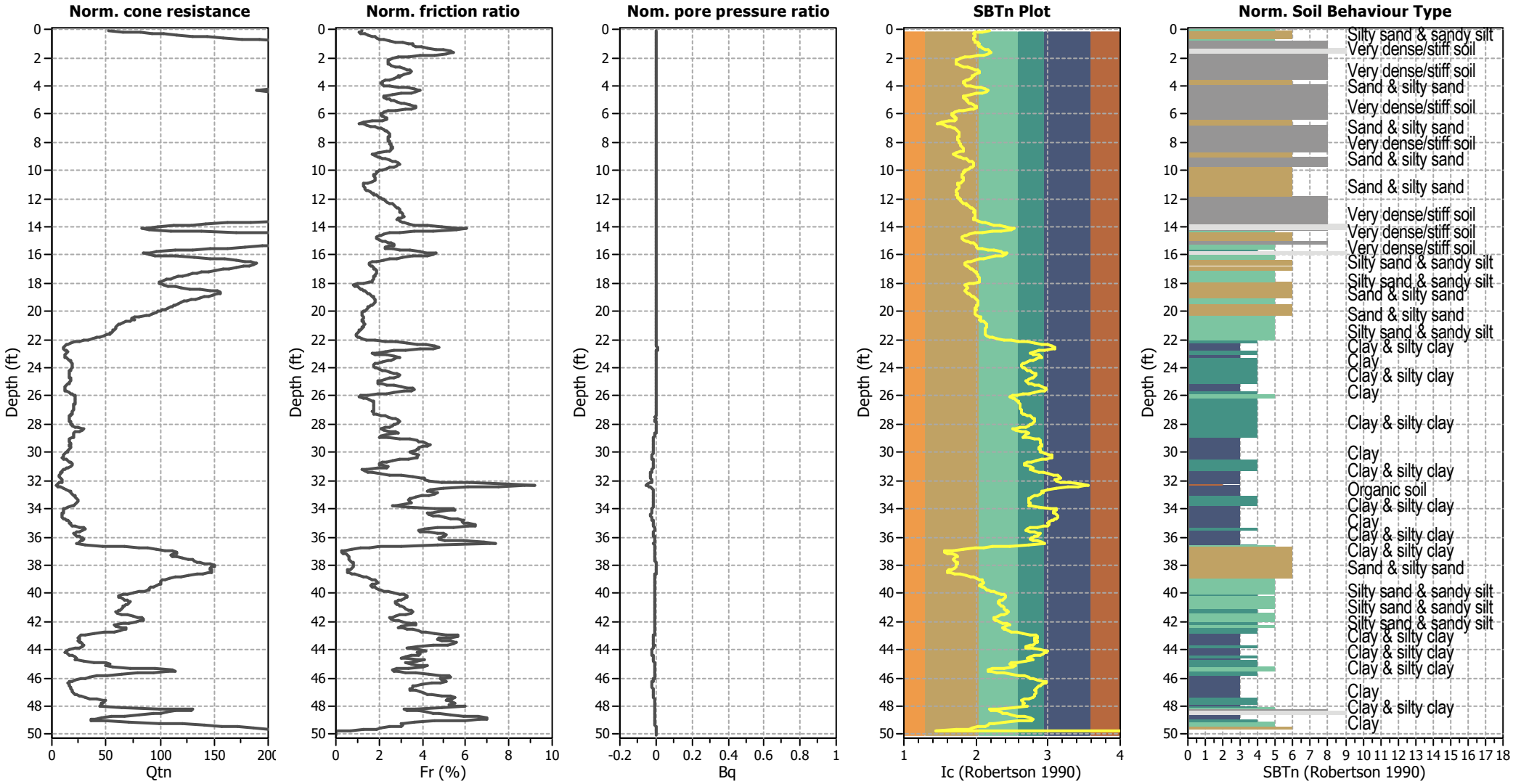
Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



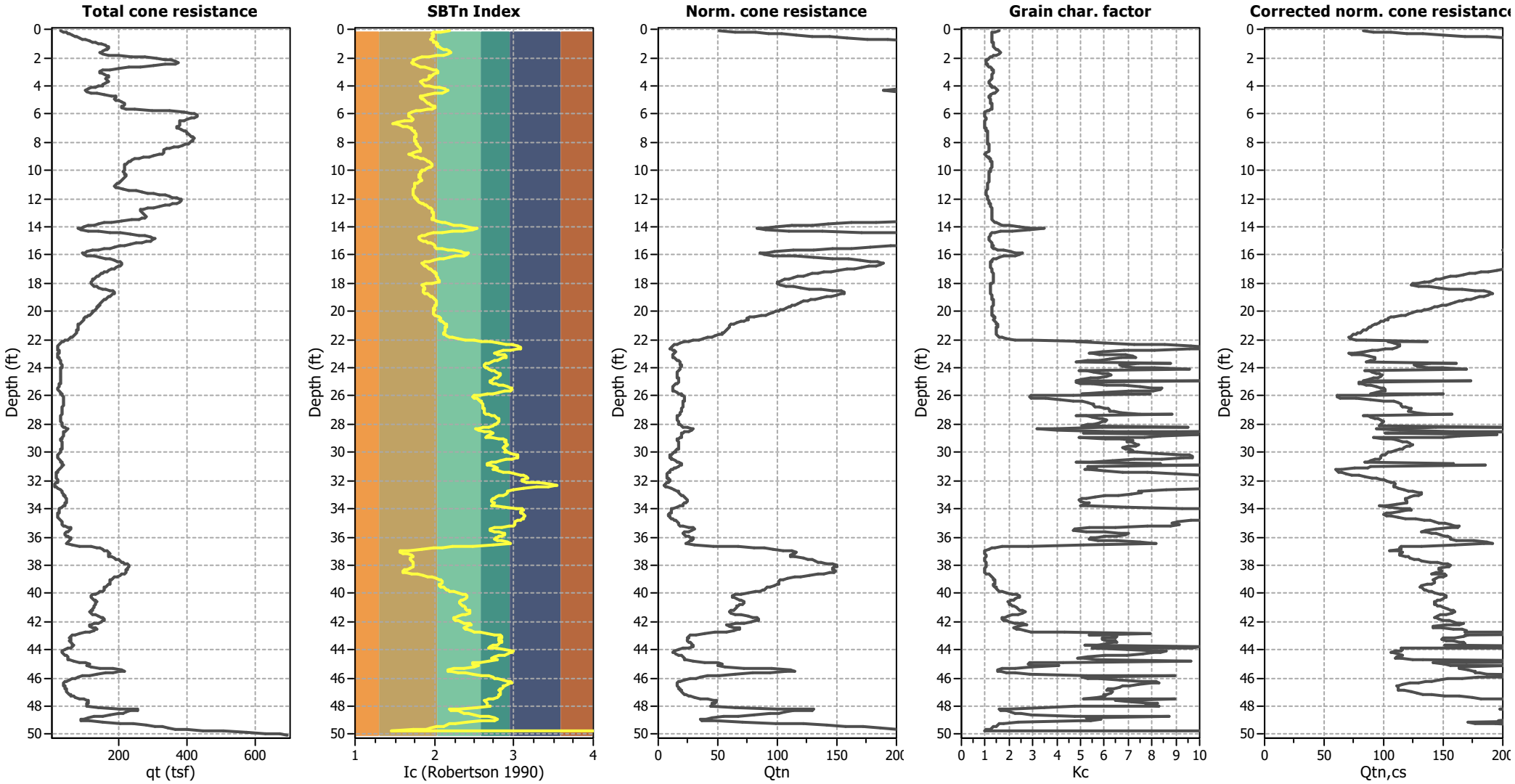
Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

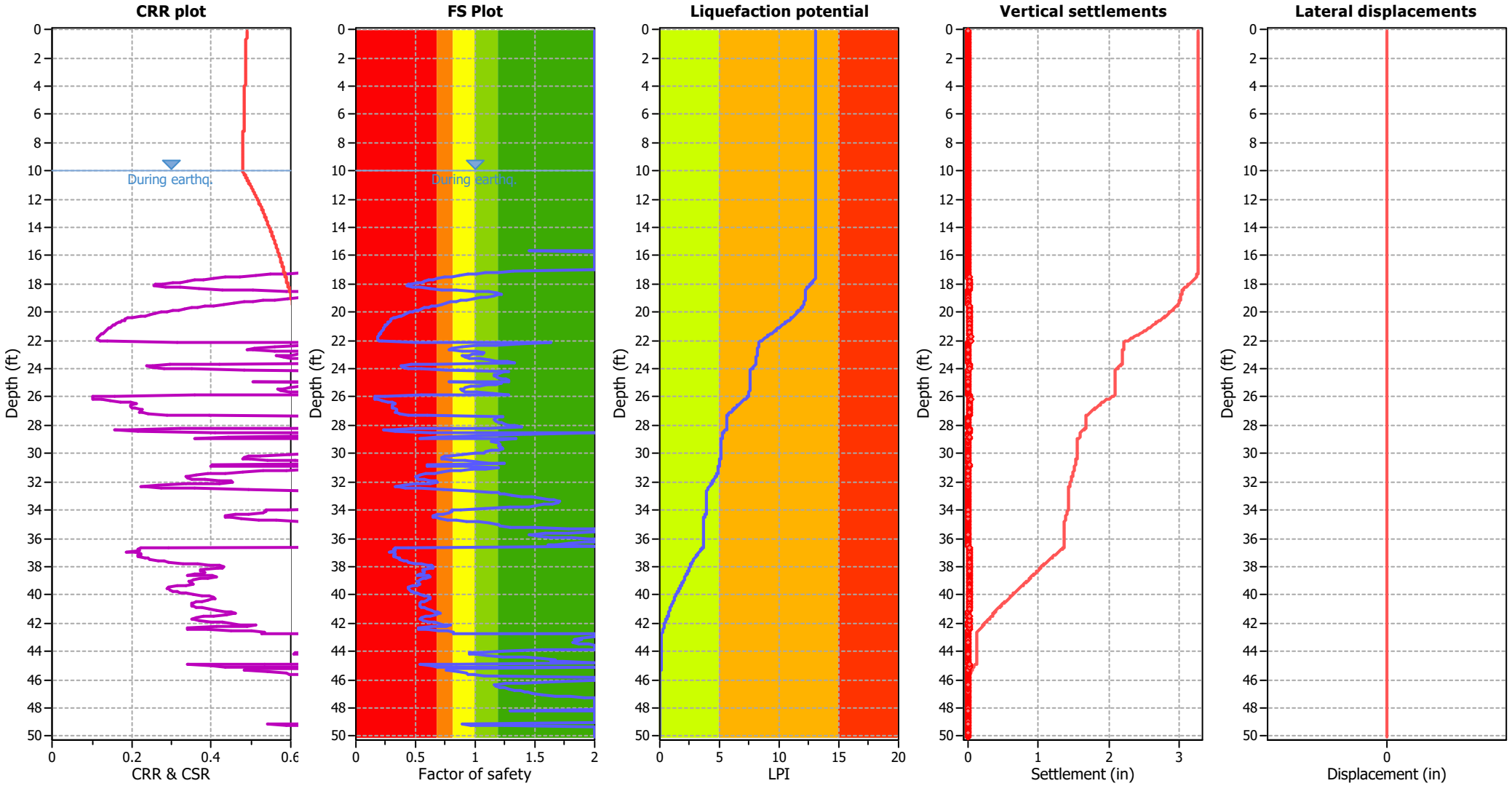
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

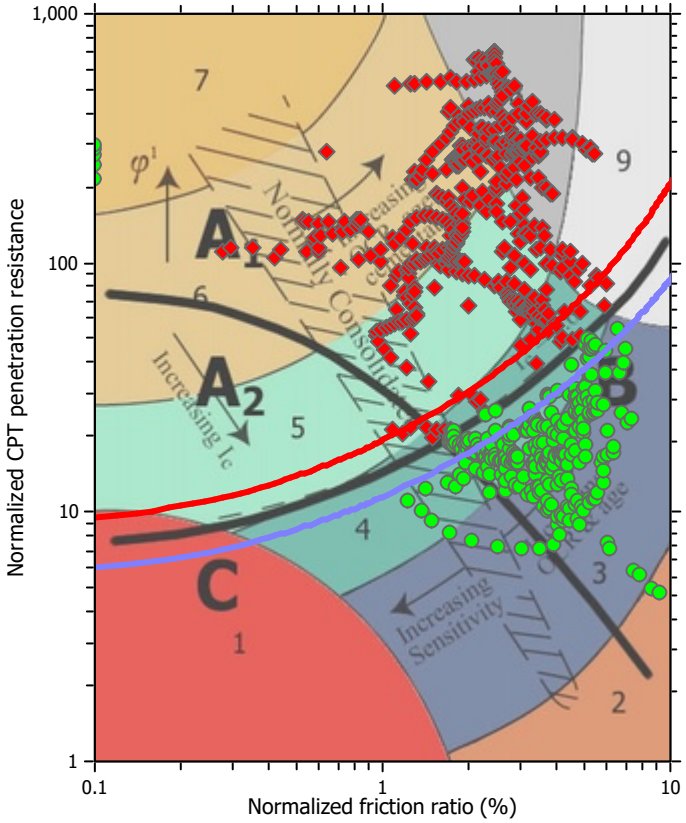
F.S. color scheme

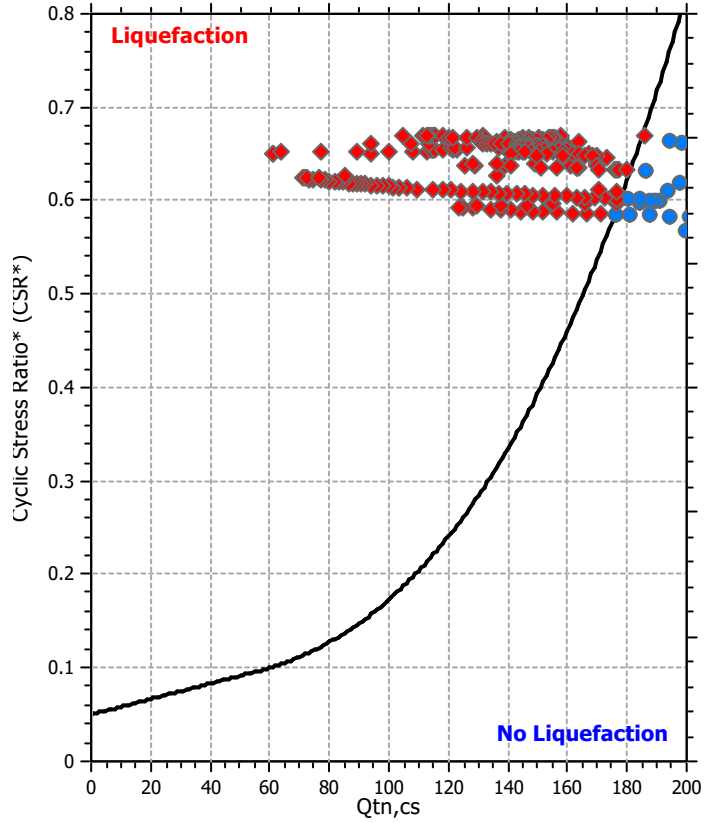
- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

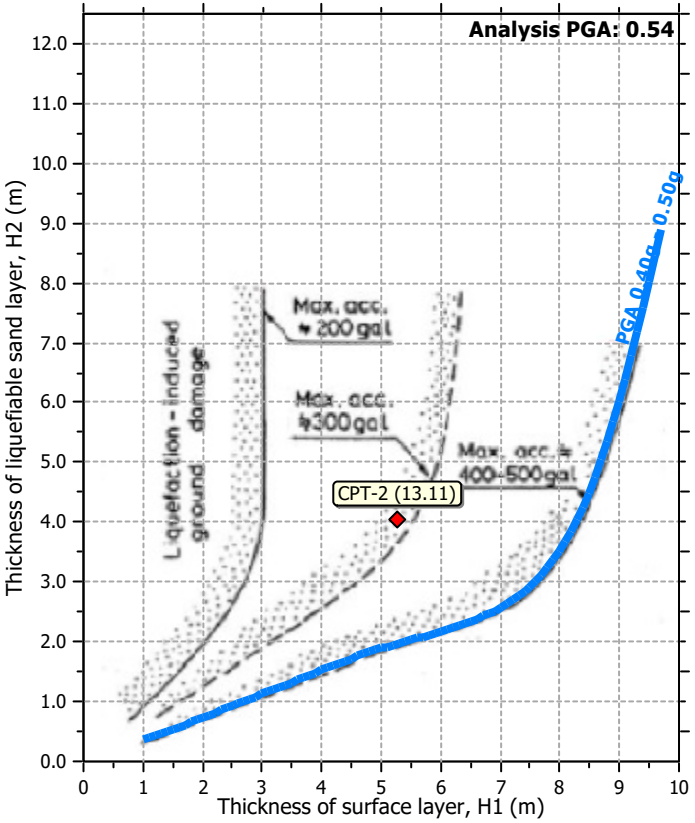
LPI color scheme

- Very high risk
- High risk
- Low risk

Liquefaction analysis summary plots



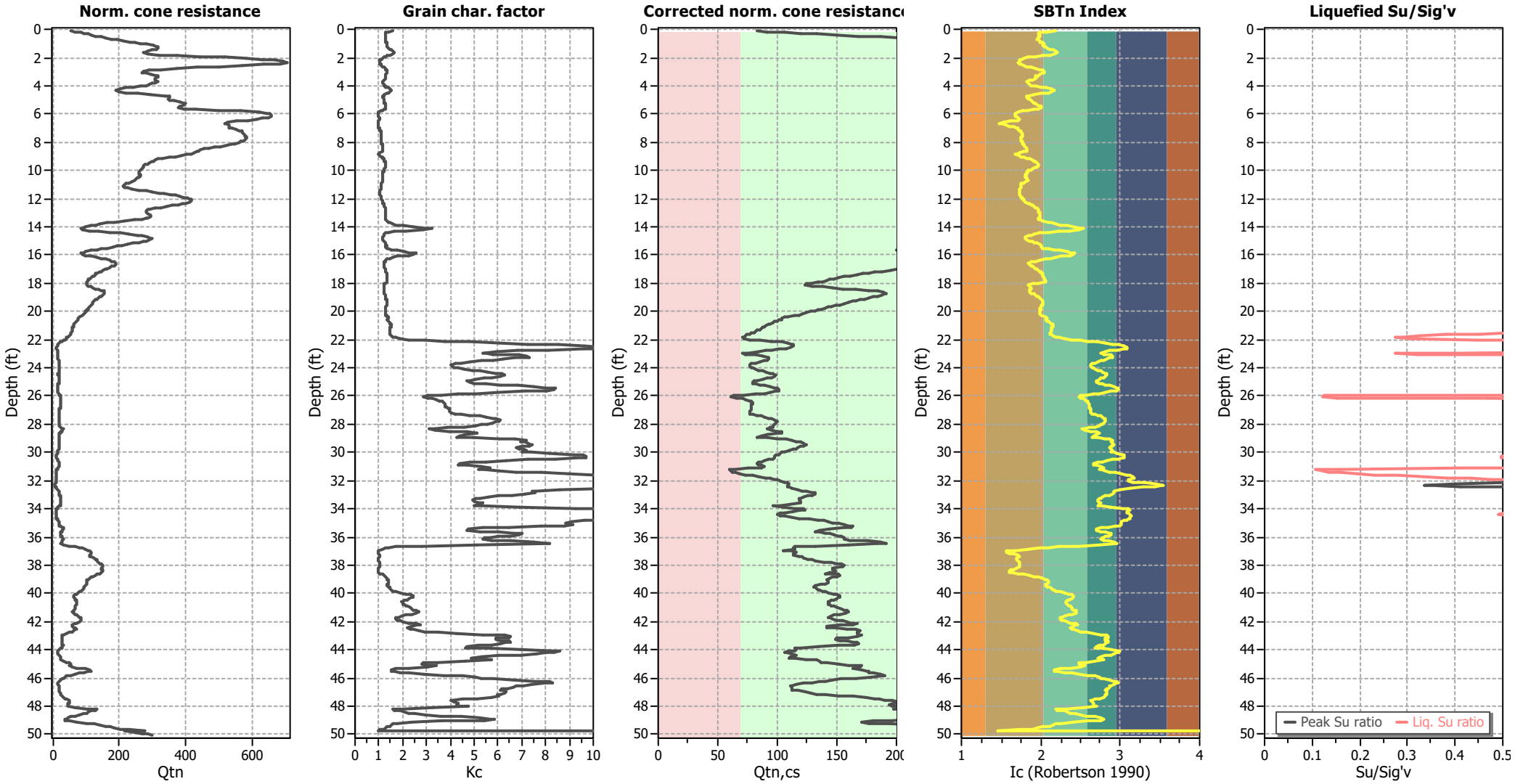




Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

Check for strength loss plots (Robertson (2010))



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

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Escondido, CA 92026

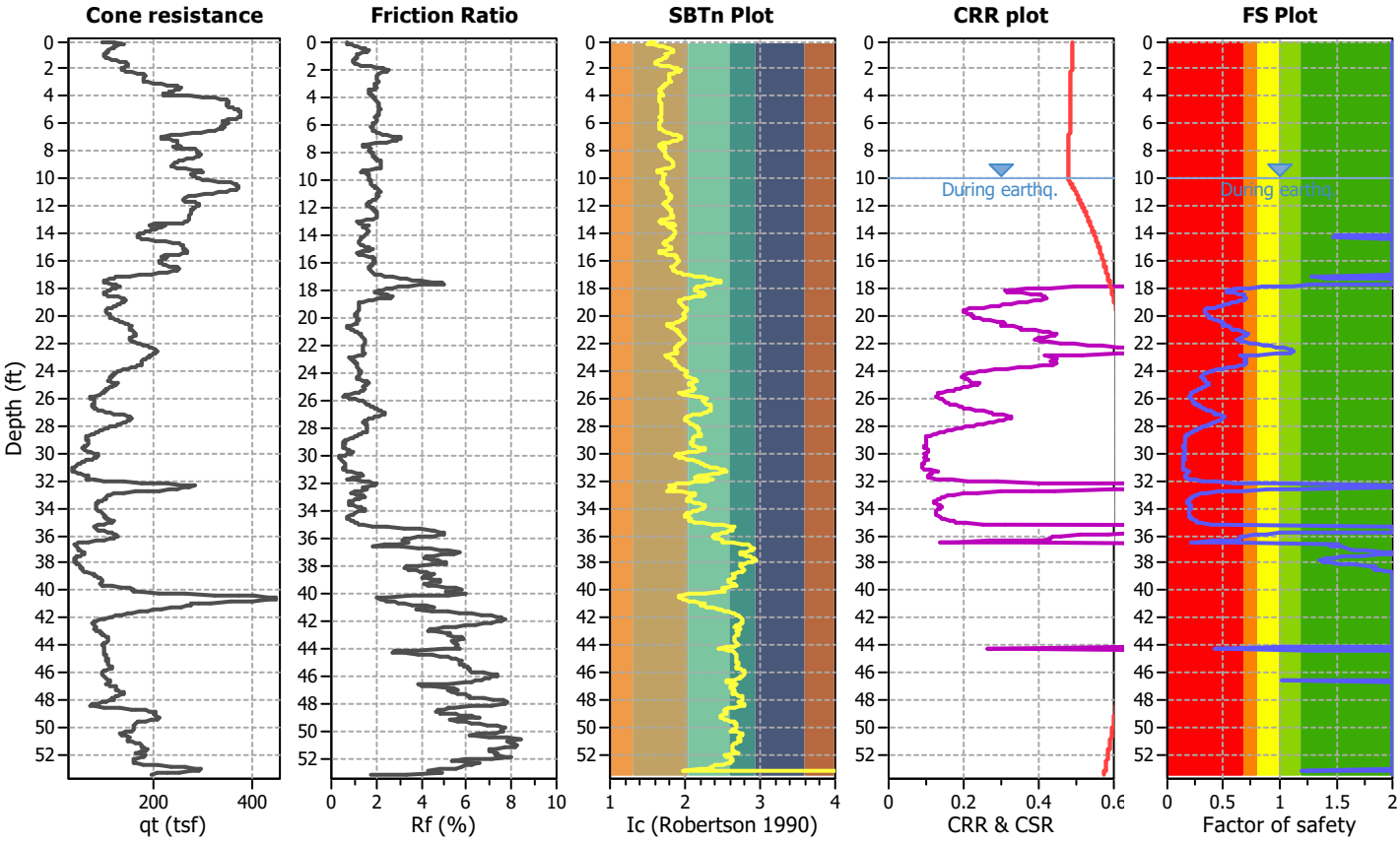
LIQUEFACTION ANALYSIS REPORT

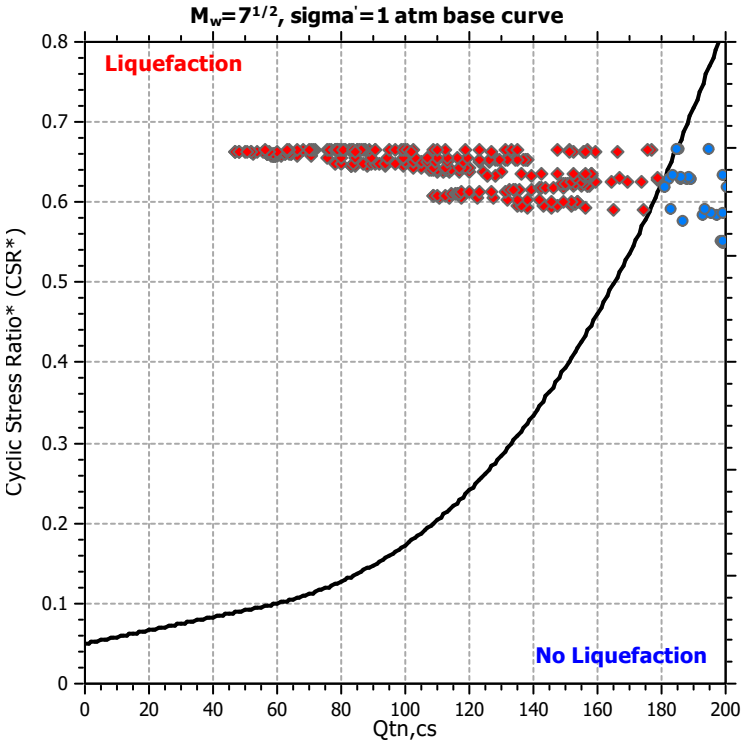
Project title : Citro Potential School Site (10-16564G) **Location : Bonsall, CA**

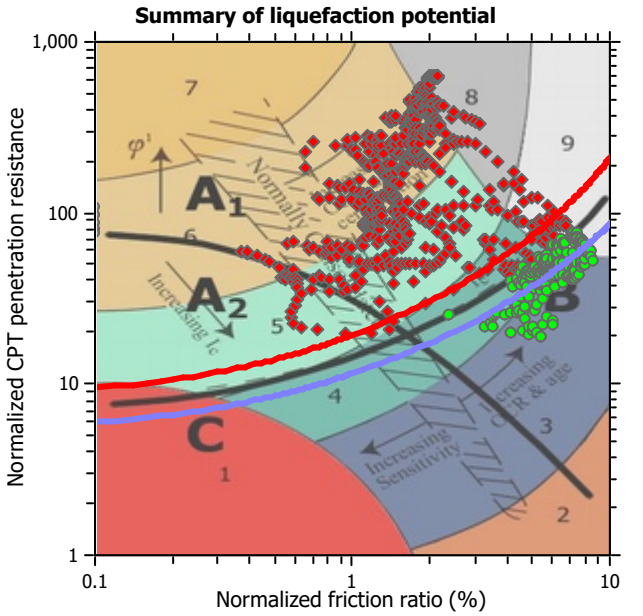
CPT file : CPT-3

Input parameters and analysis data

Analysis method:	Robertson (2009)	G.W.T. (in-situ):	23.00 ft	Use fill:	No	Clay like behavior applied:	All soils
Fines correction method:	Robertson (2009)	G.W.T. (earthq.):	10.00 ft	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	7.70	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.54	Unit weight calculation:	Based on SBT	K_σ applied:	No		

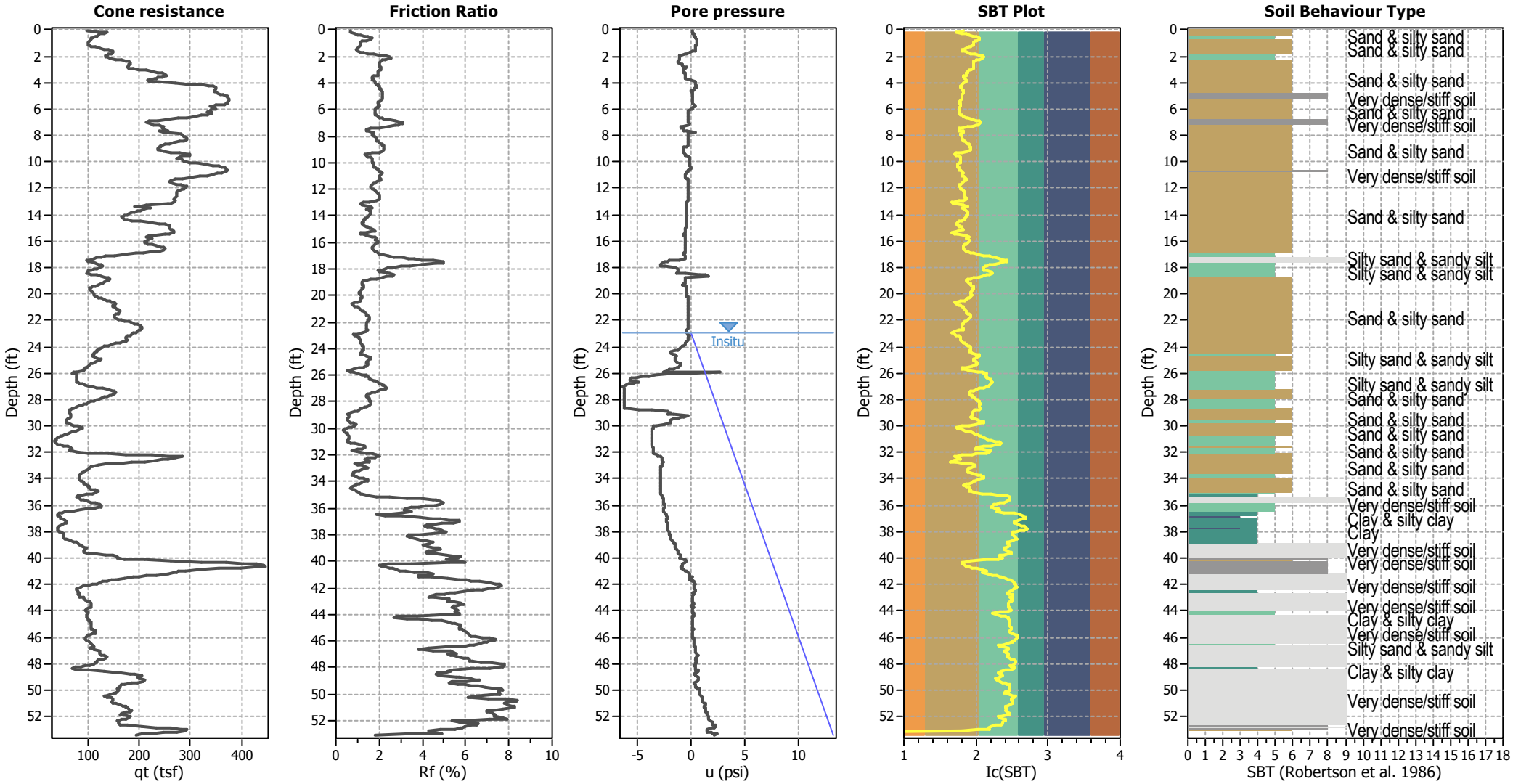






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



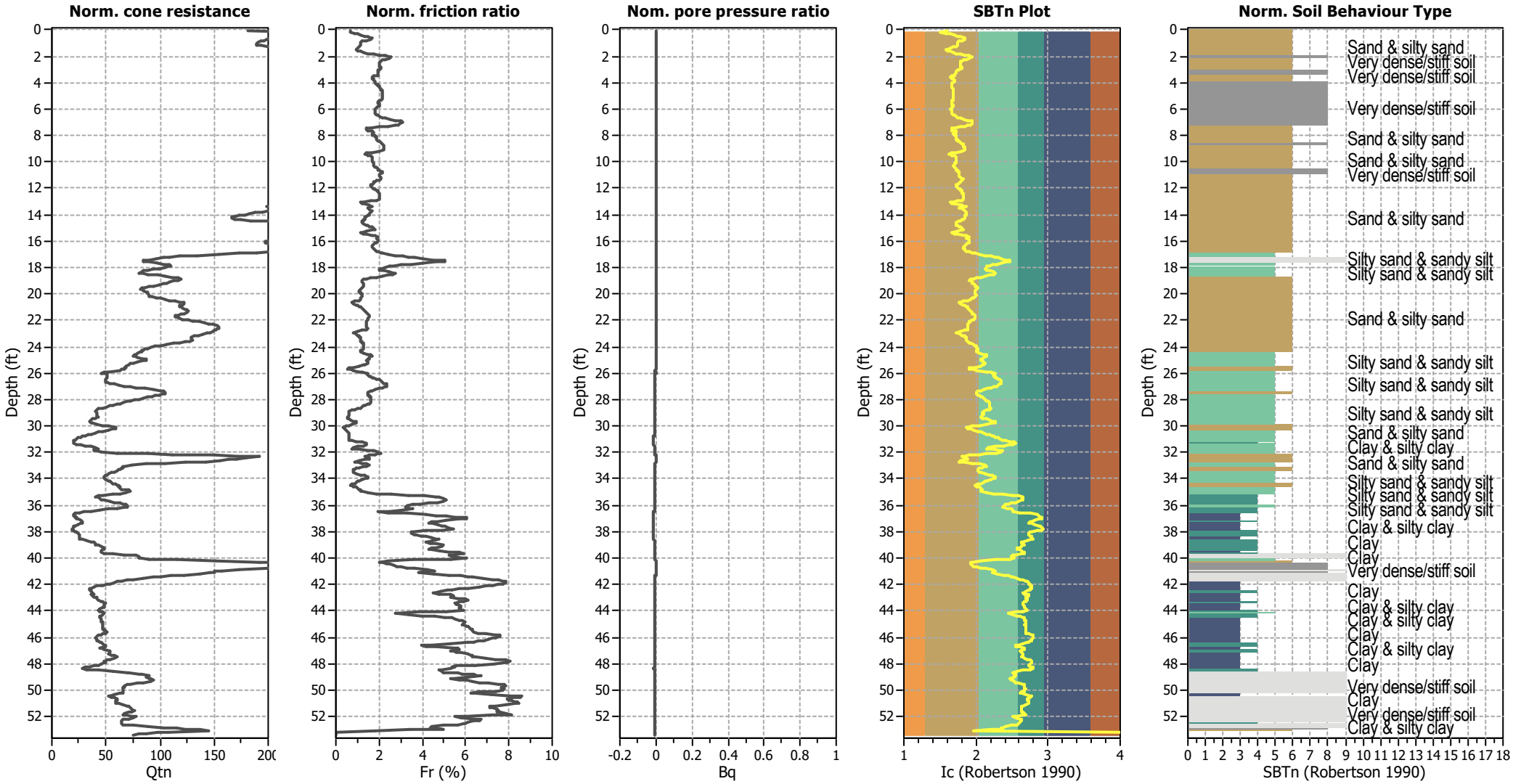
Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



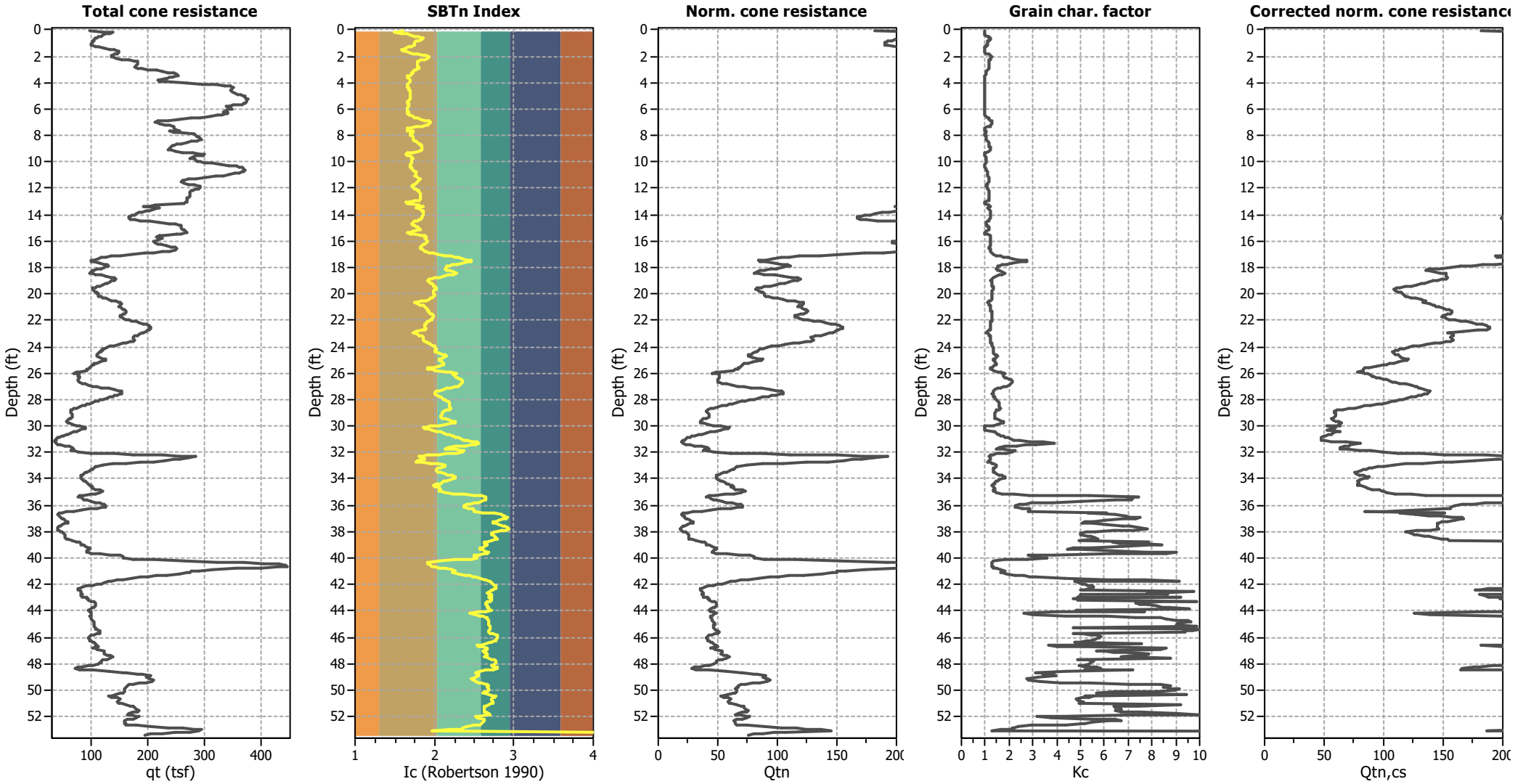
Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

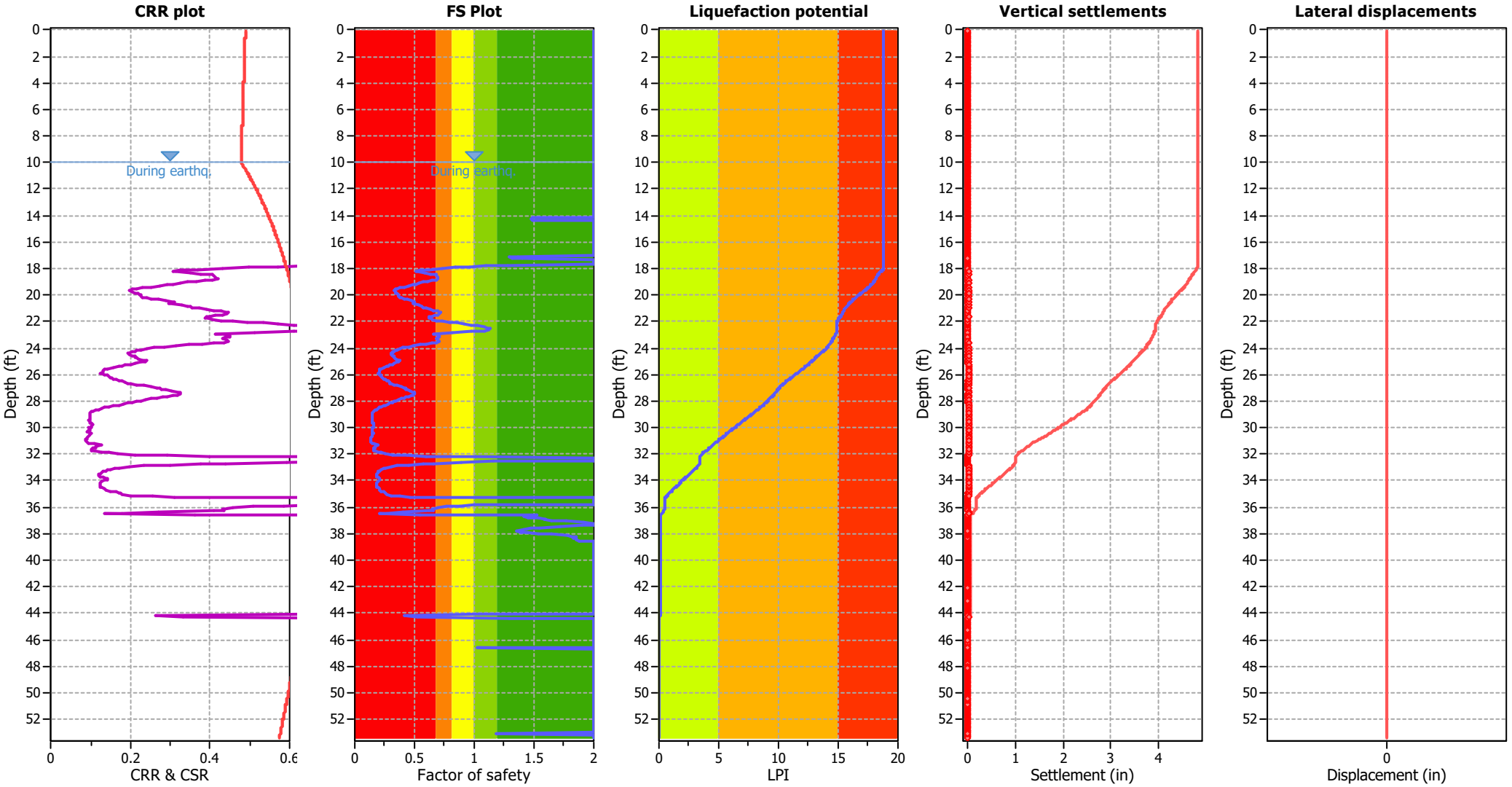
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_o applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

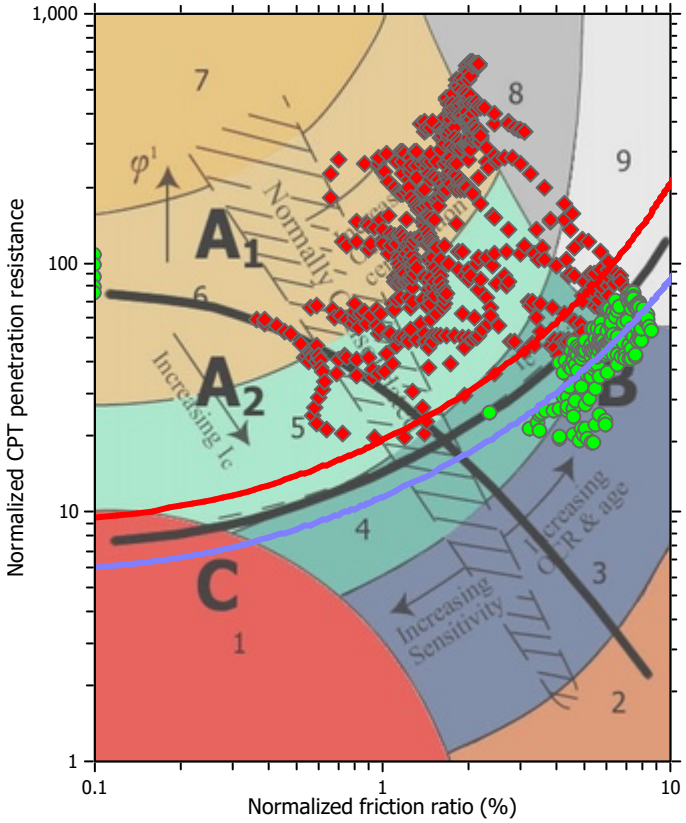
F.S. color scheme

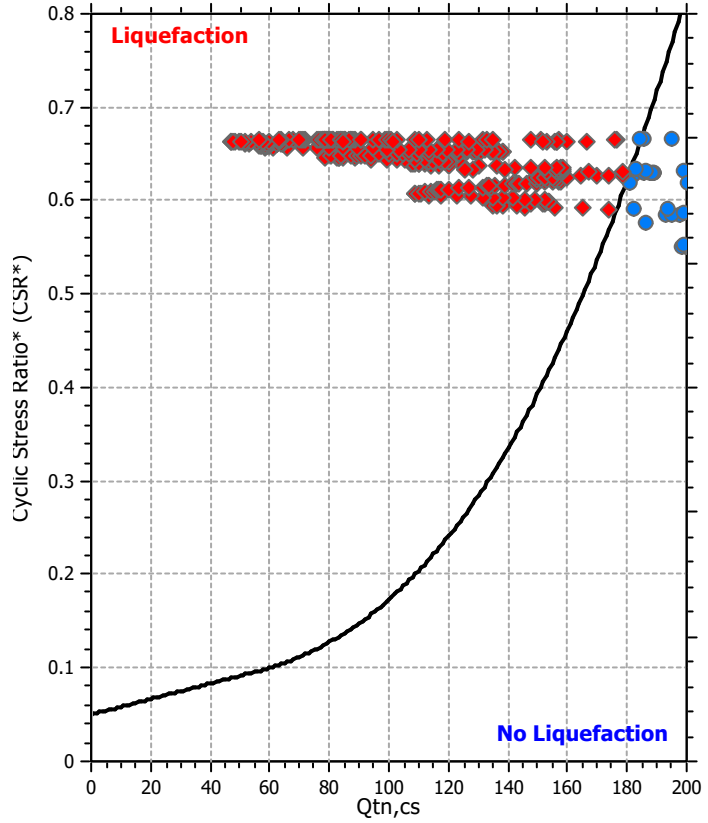
- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

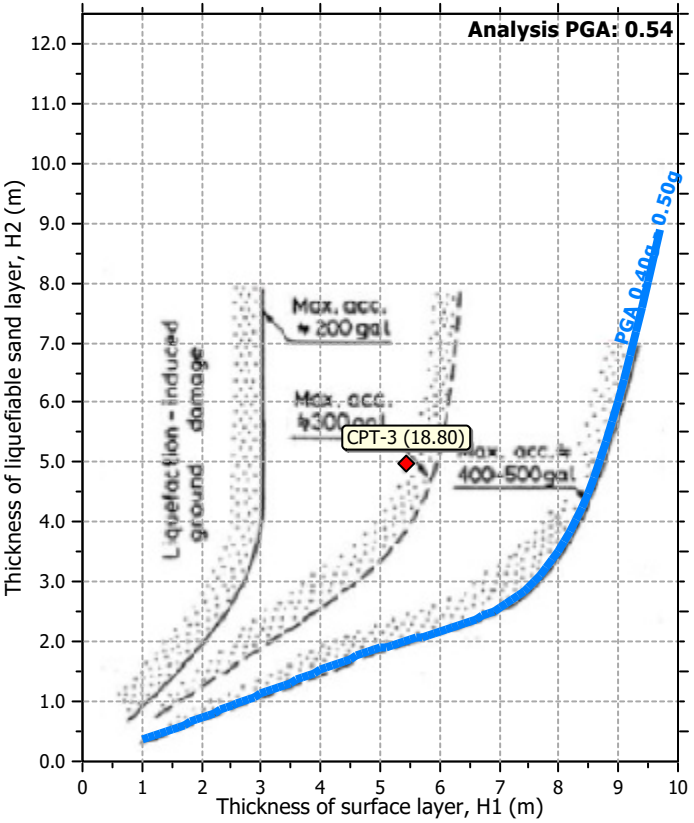
LPI color scheme

- Very high risk
- High risk
- Low risk

Liquefaction analysis summary plots



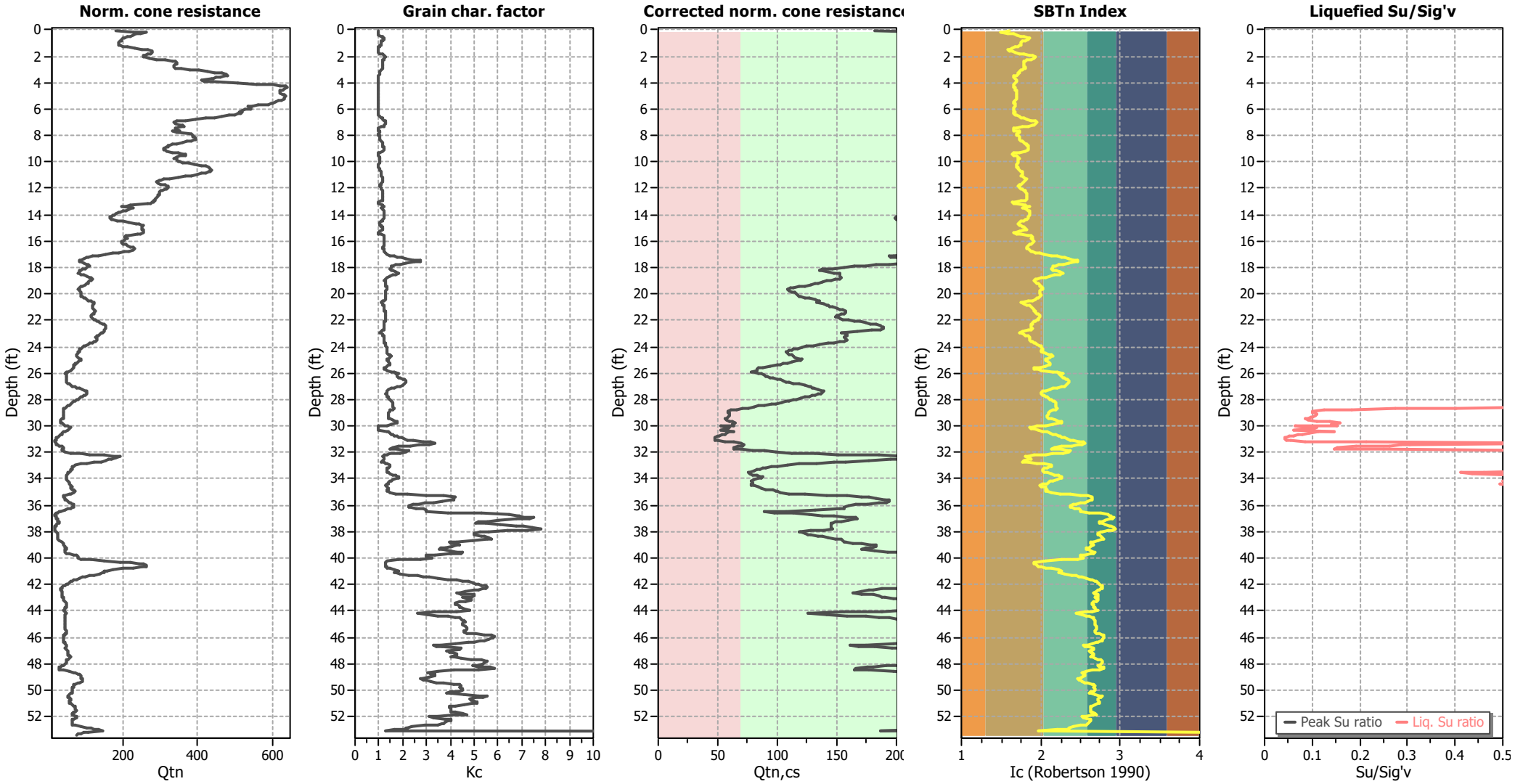




Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

Check for strength loss plots (Robertson (2010))



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_o applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

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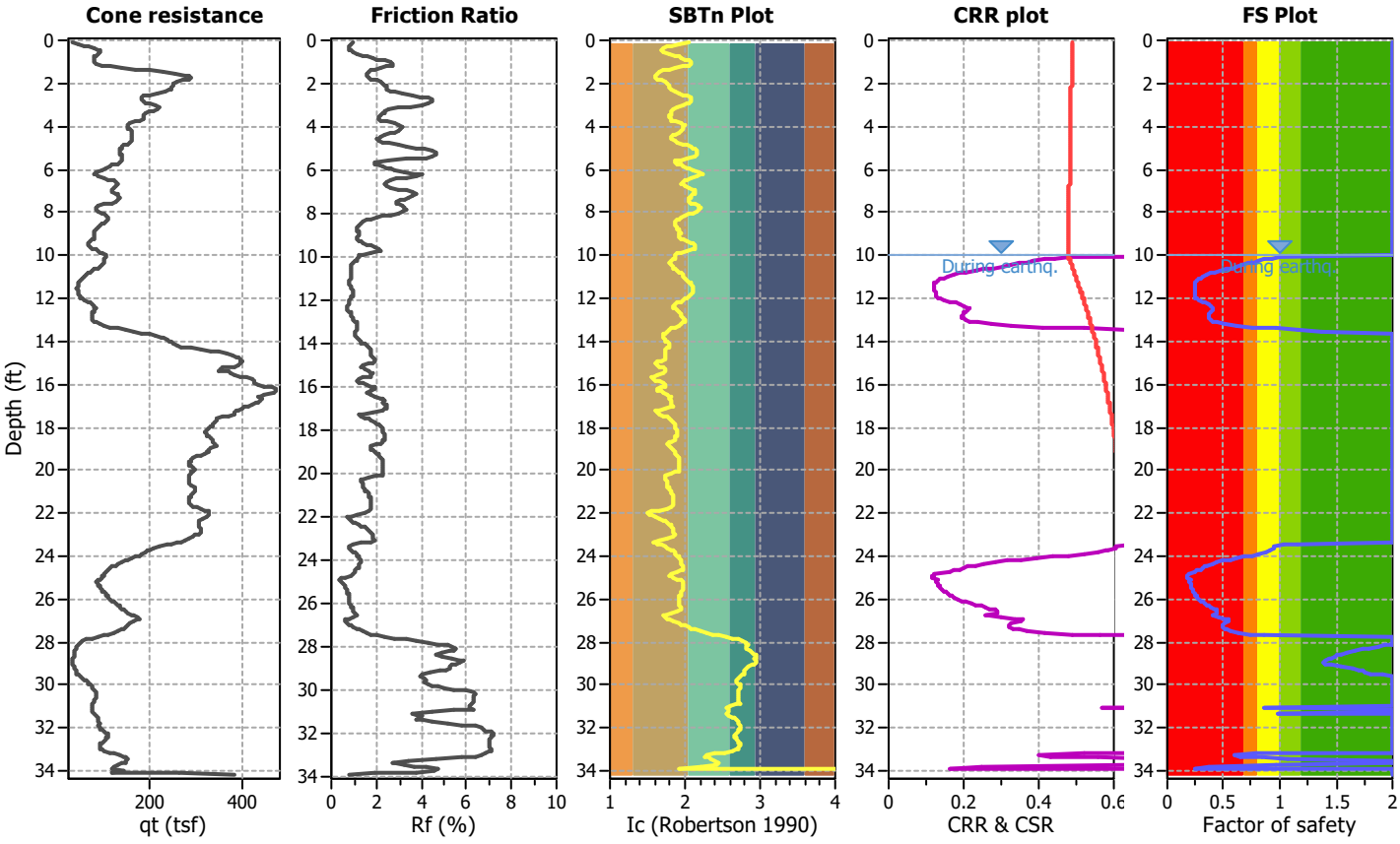
LIQUEFACTION ANALYSIS REPORT

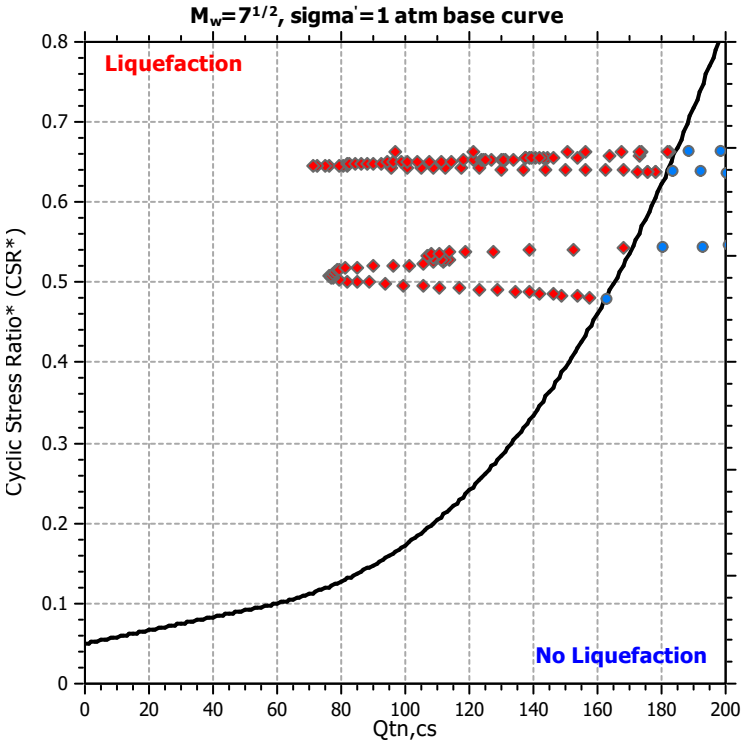
Project title : Citro Potential School Site (10-16564G) **Location : Bonsall, CA**

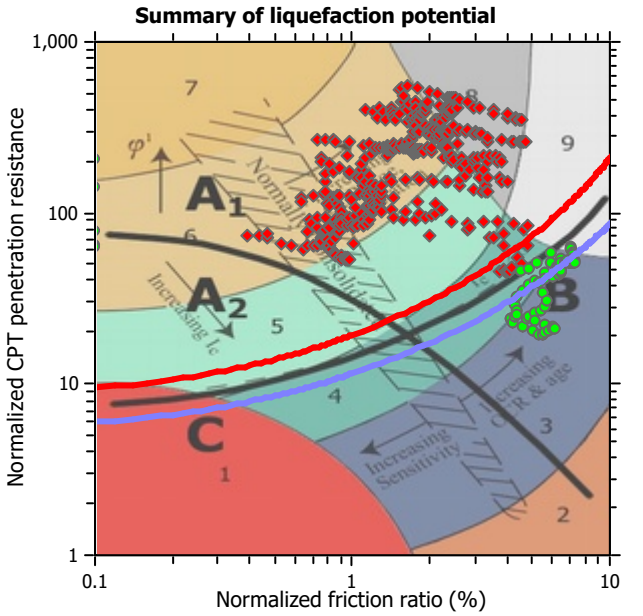
CPT file : CPT-4

Input parameters and analysis data

Analysis method:	Robertson (2009)	G.W.T. (in-situ):	23.00 ft	Use fill:	No	Clay like behavior applied:	All soils
Fines correction method:	Robertson (2009)	G.W.T. (earthq.):	10.00 ft	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	7.70	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.54	Unit weight calculation:	Based on SBT	K_σ applied:	No		

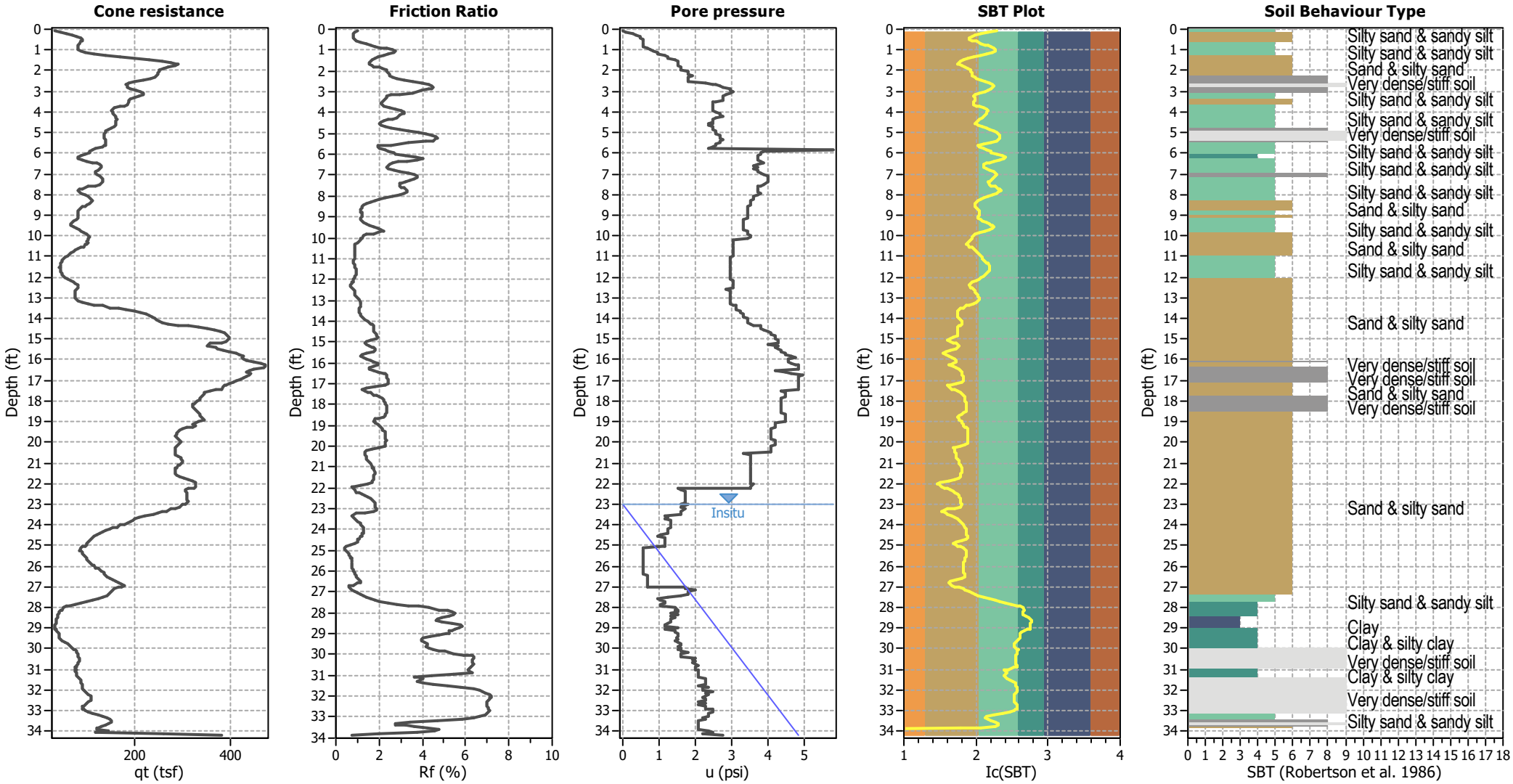






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



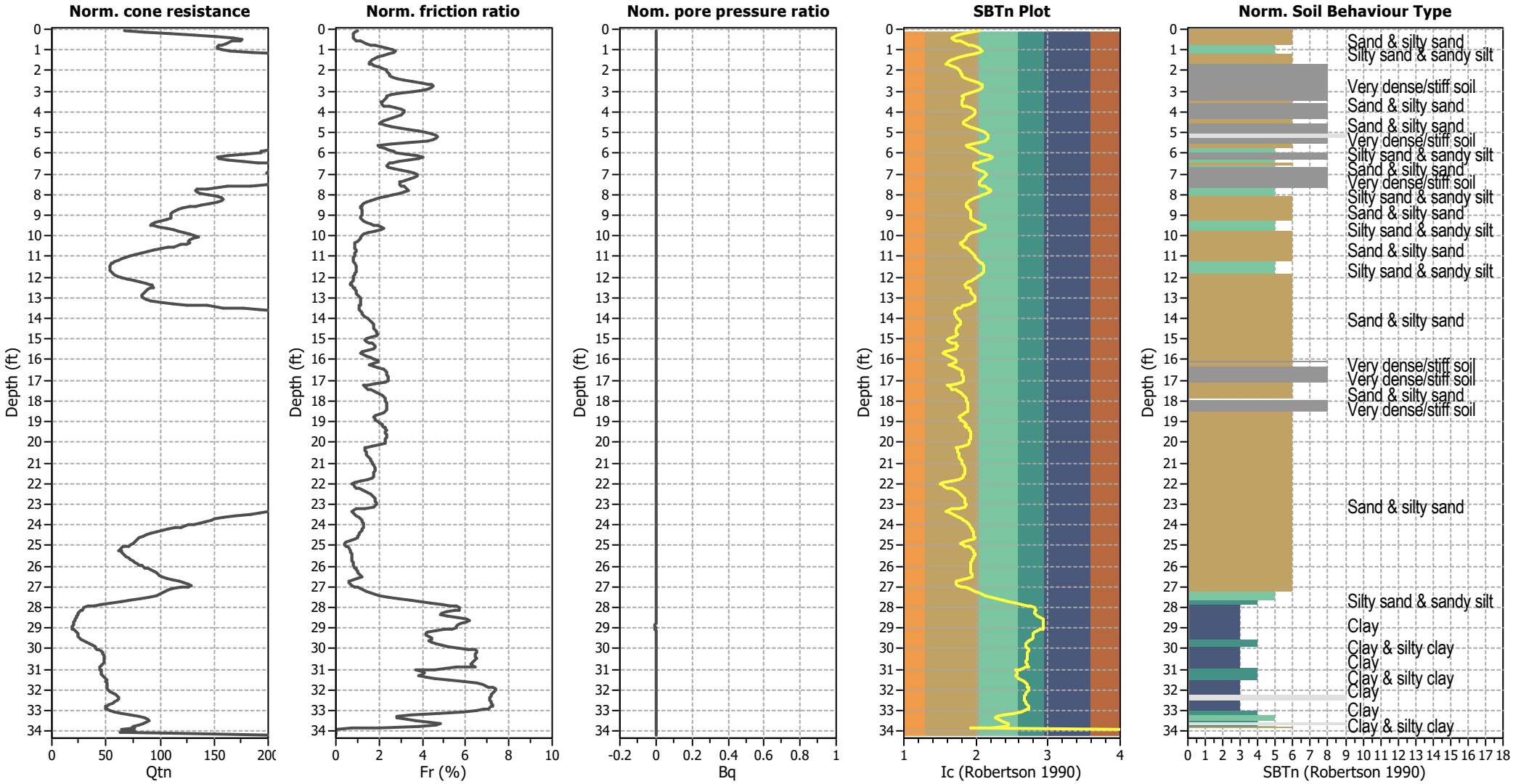
Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



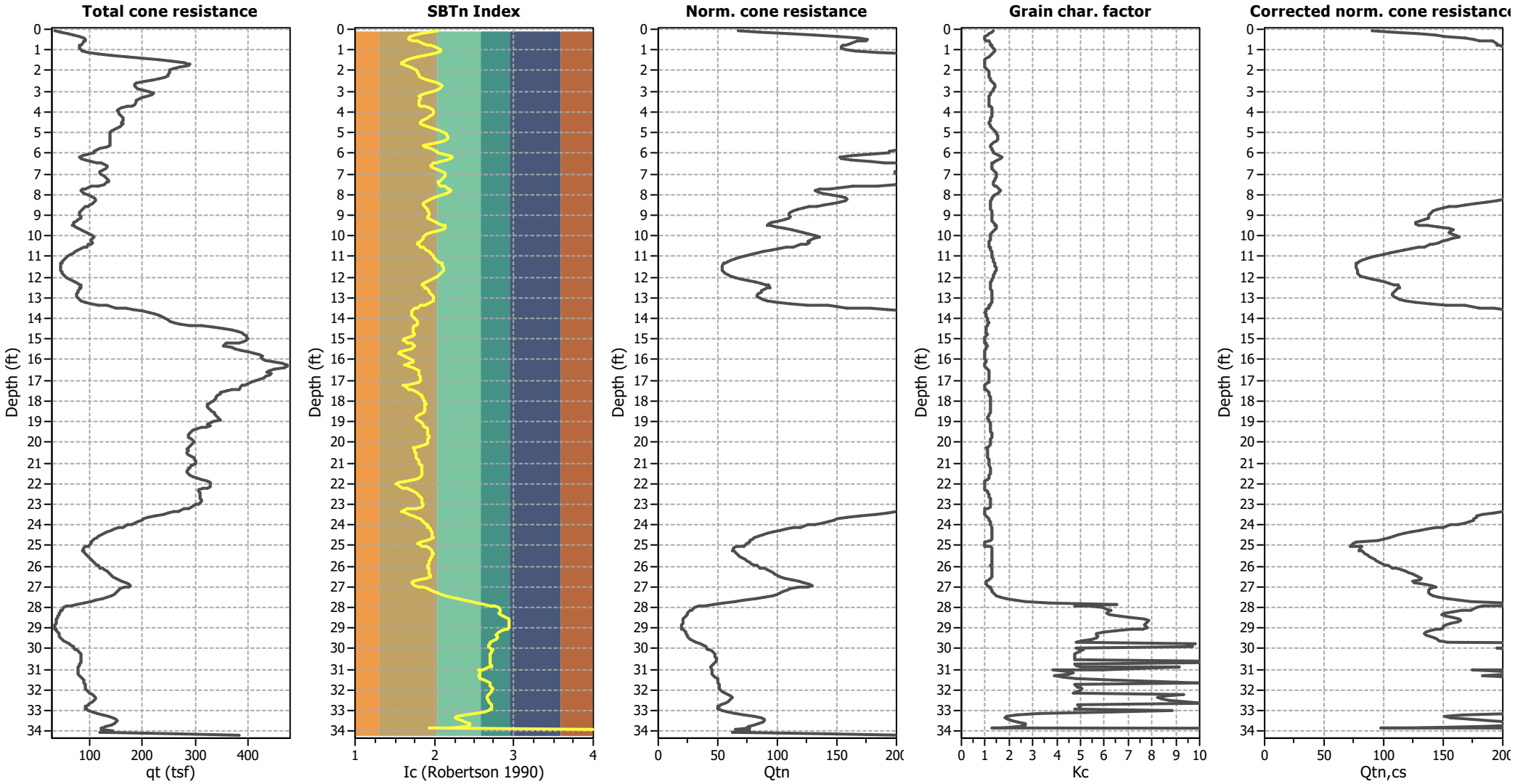
Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

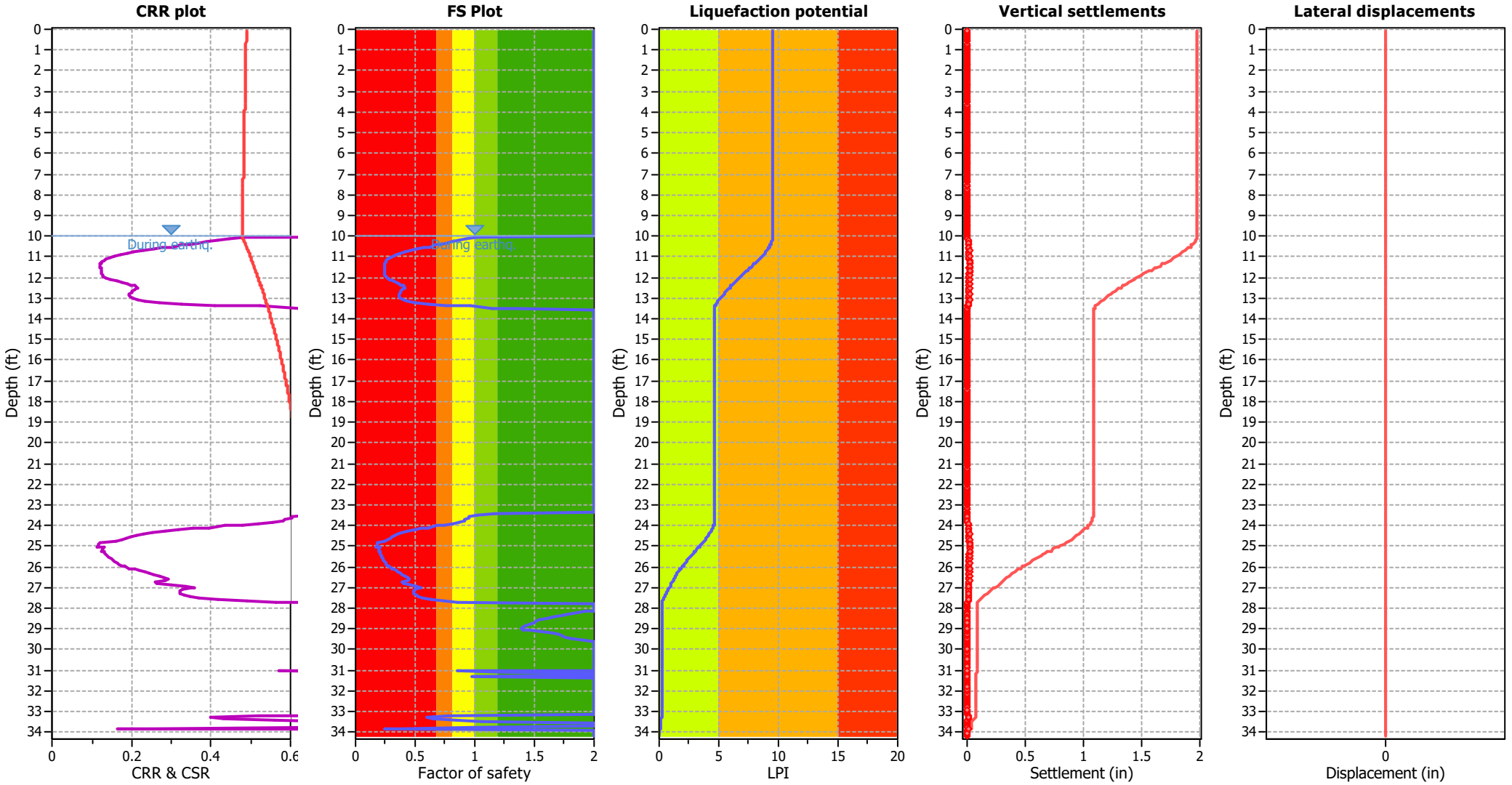
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_o applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

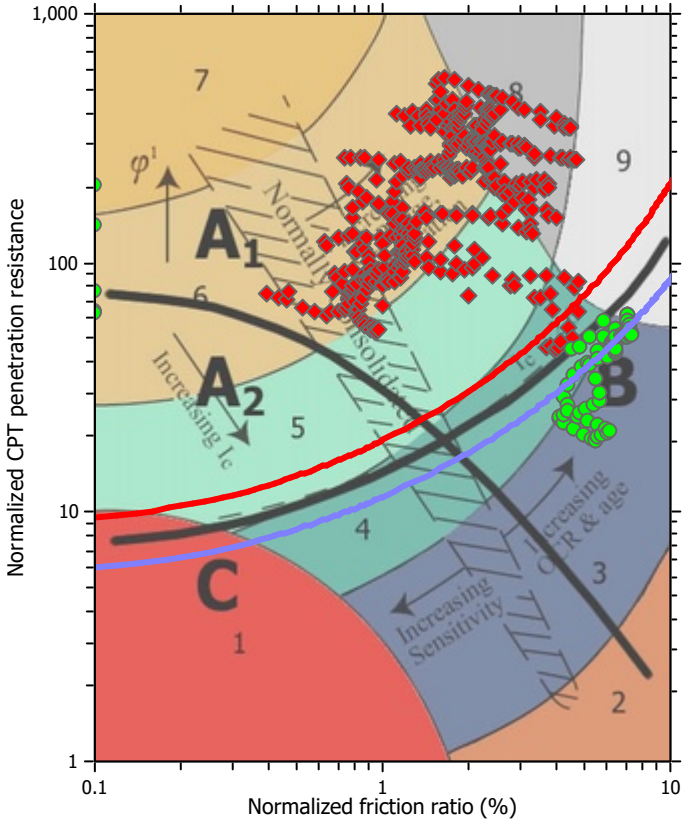
F.S. color scheme

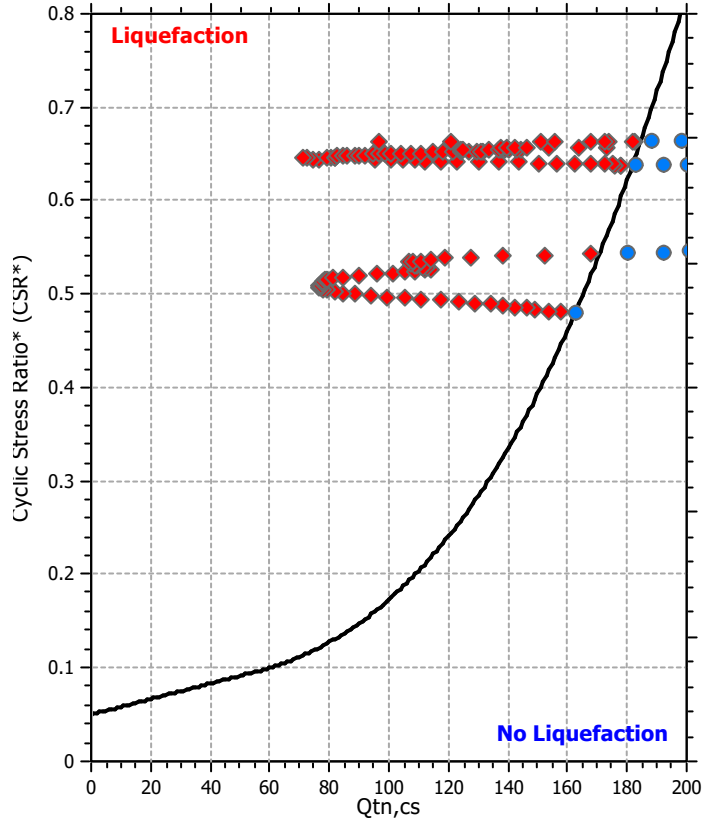
- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

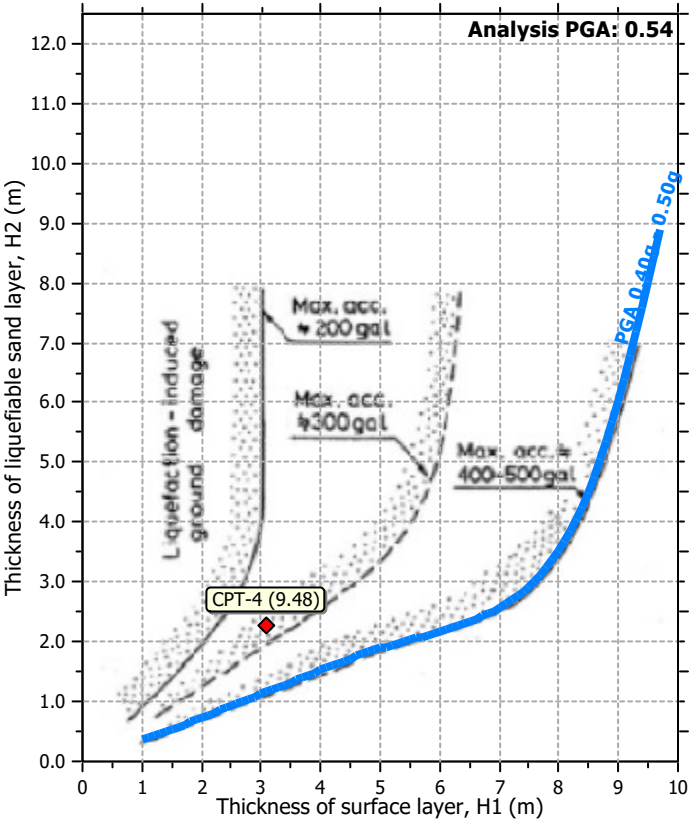
LPI color scheme

- Very high risk
- High risk
- Low risk

Liquefaction analysis summary plots



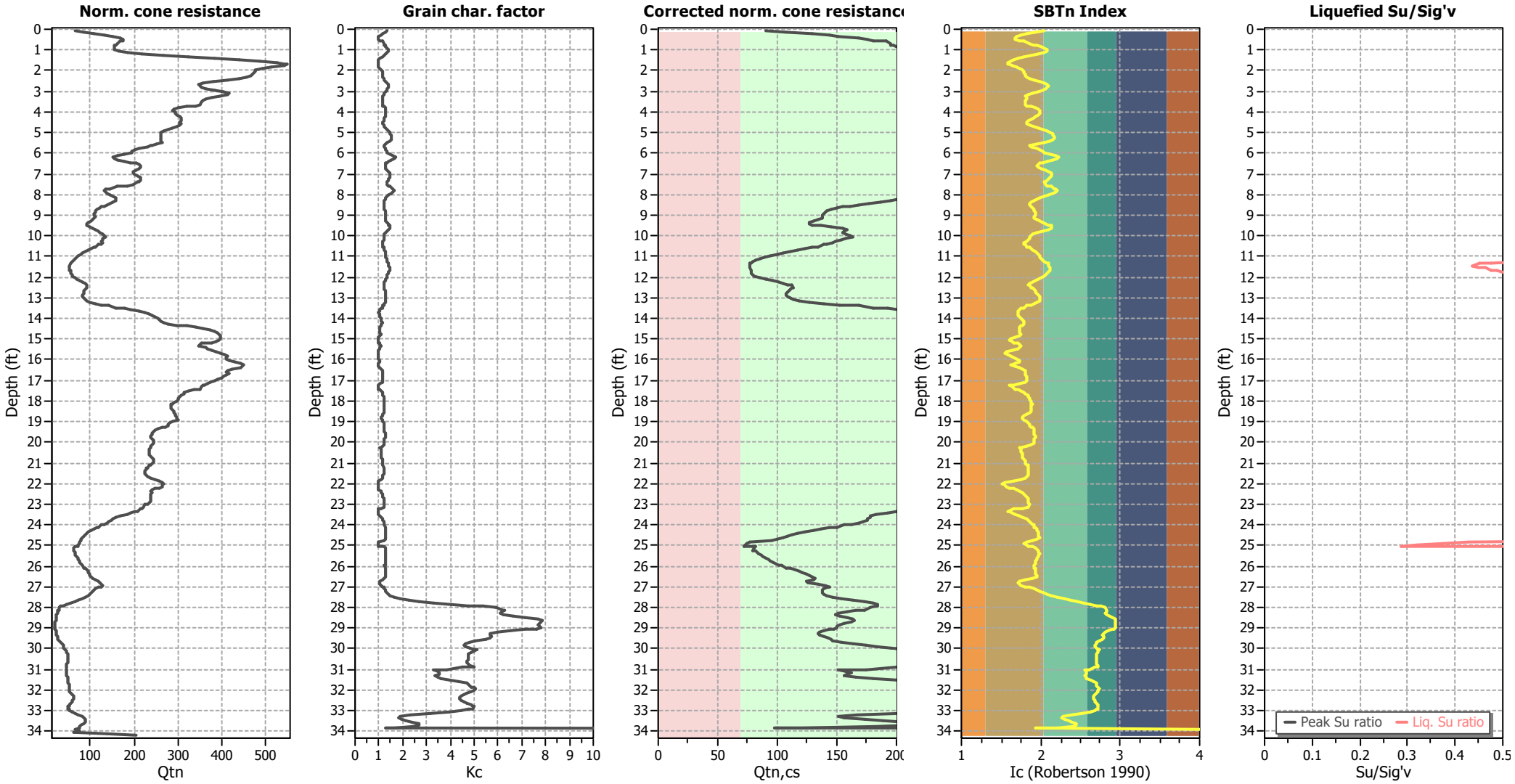




Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

Check for strength loss plots (Robertson (2010))



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

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Escondido, CA 92026

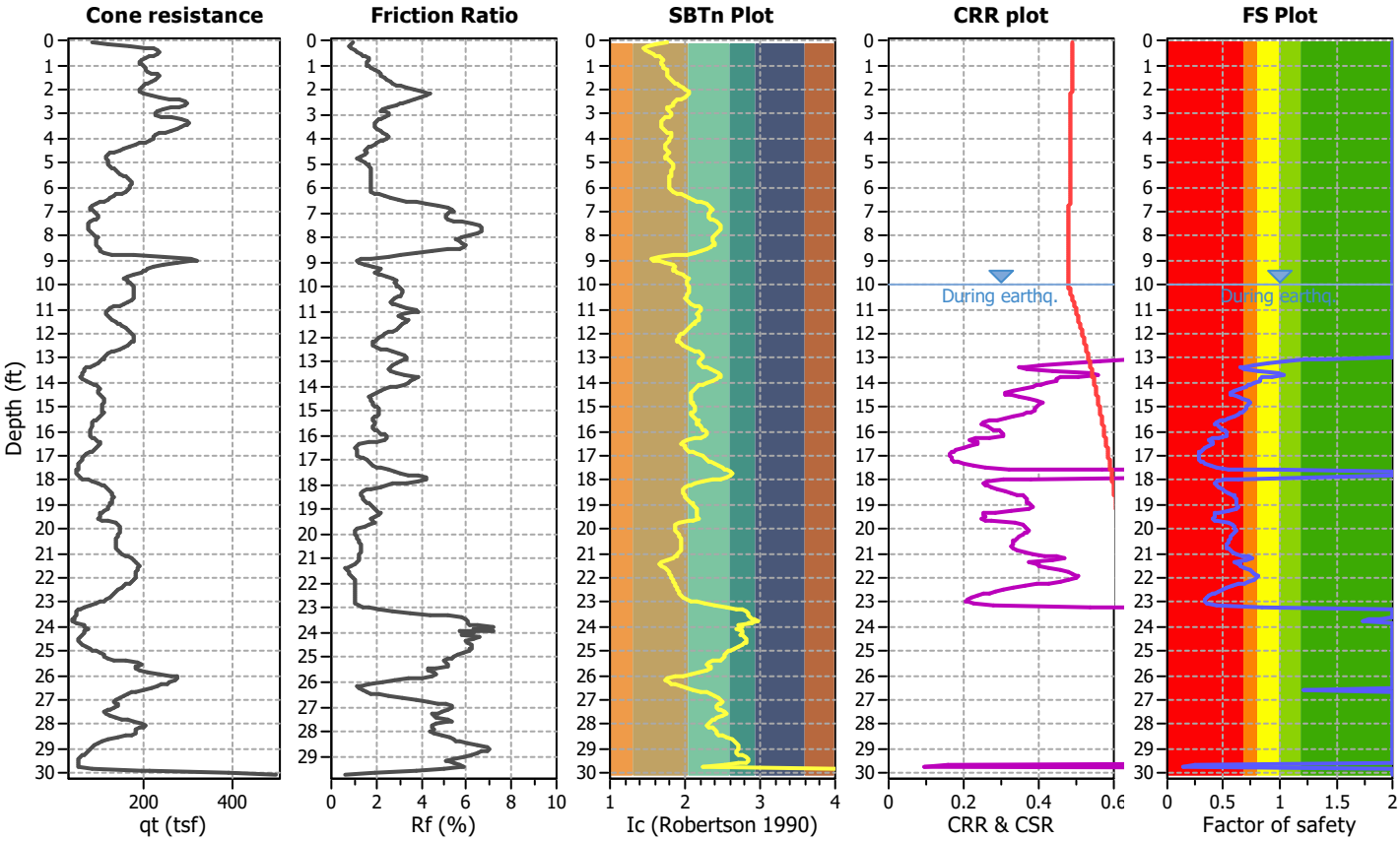
LIQUEFACTION ANALYSIS REPORT

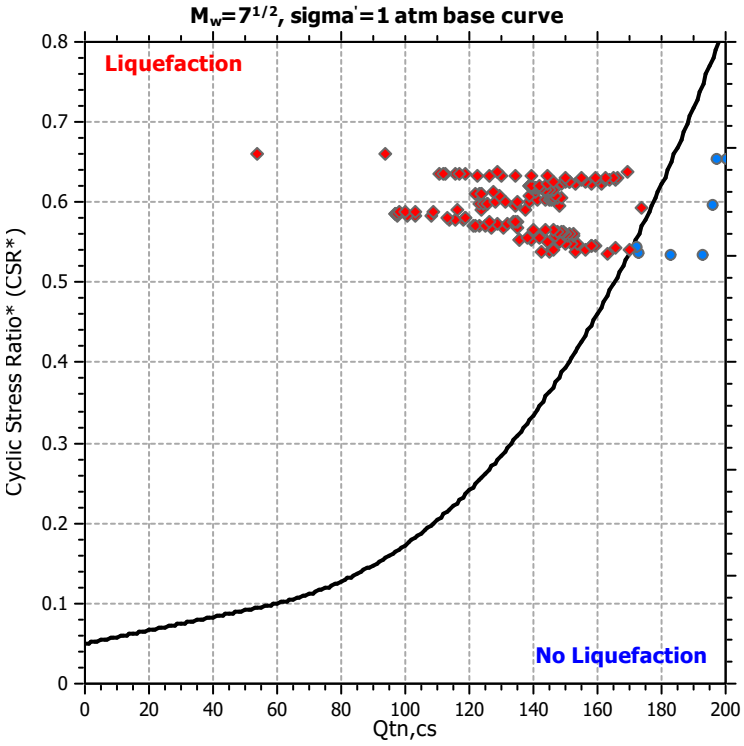
Project title : Citro Potential School Site (10-16564G) **Location : Bonsall, CA**

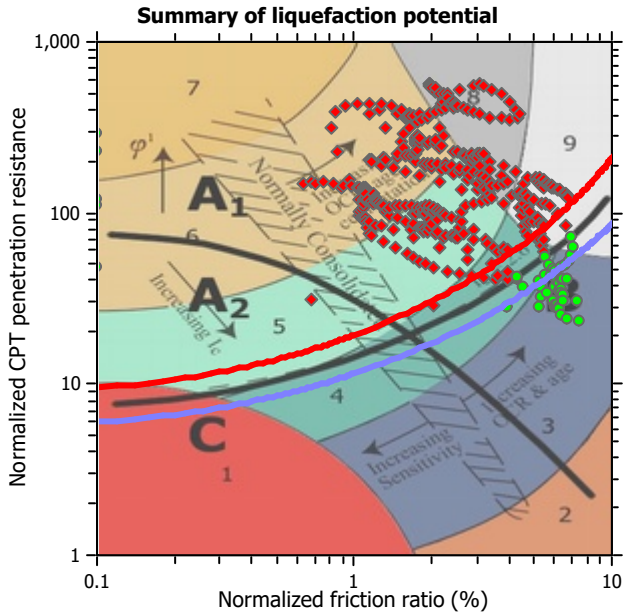
CPT file : CPT-5

Input parameters and analysis data

Analysis method:	Robertson (2009)	G.W.T. (in-situ):	23.00 ft	Use fill:	No	Clay like behavior applied:	All soils
Fines correction method:	Robertson (2009)	G.W.T. (earthq.):	10.00 ft	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	7.70	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.54	Unit weight calculation:	Based on SBT	K_σ applied:	No		

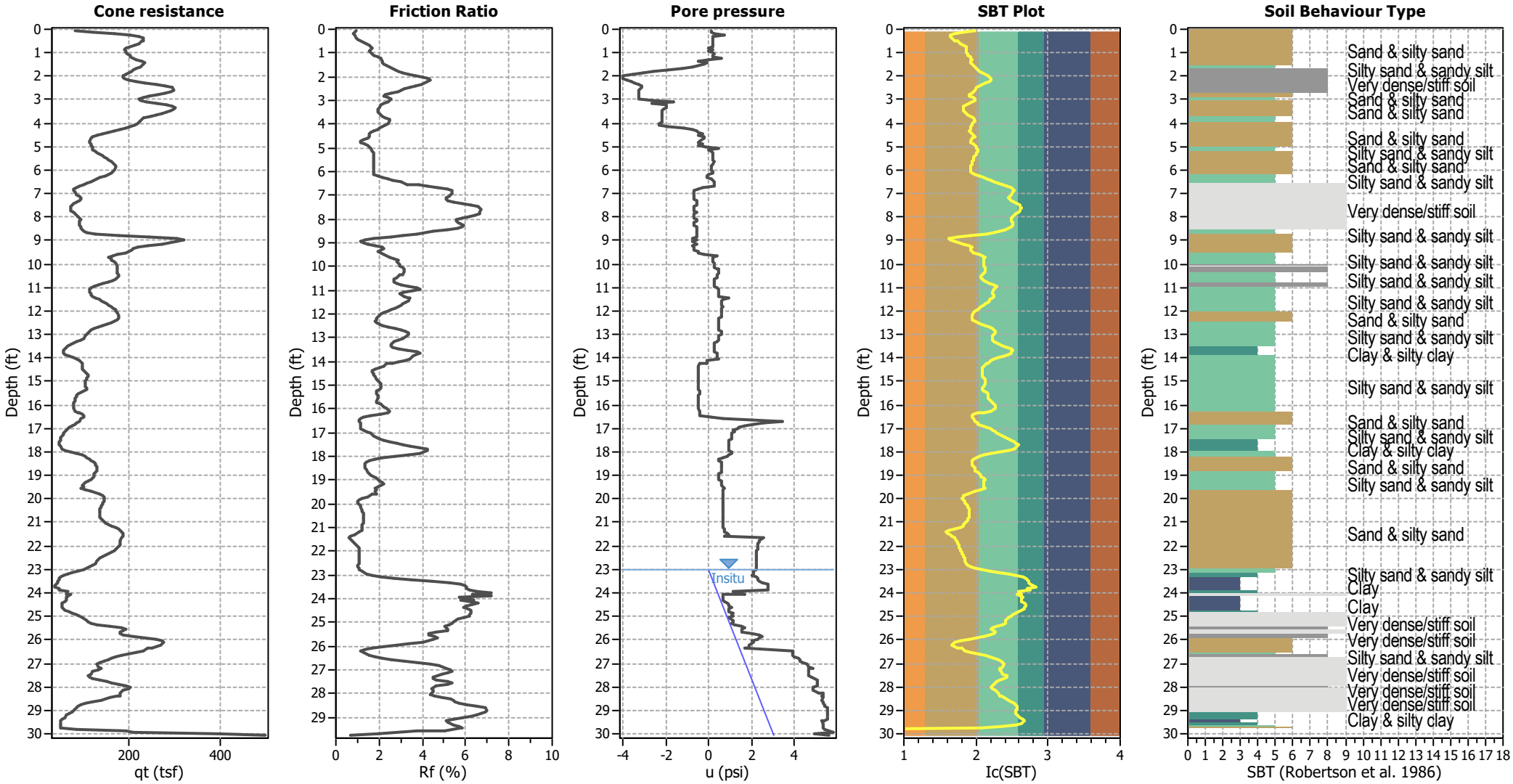






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



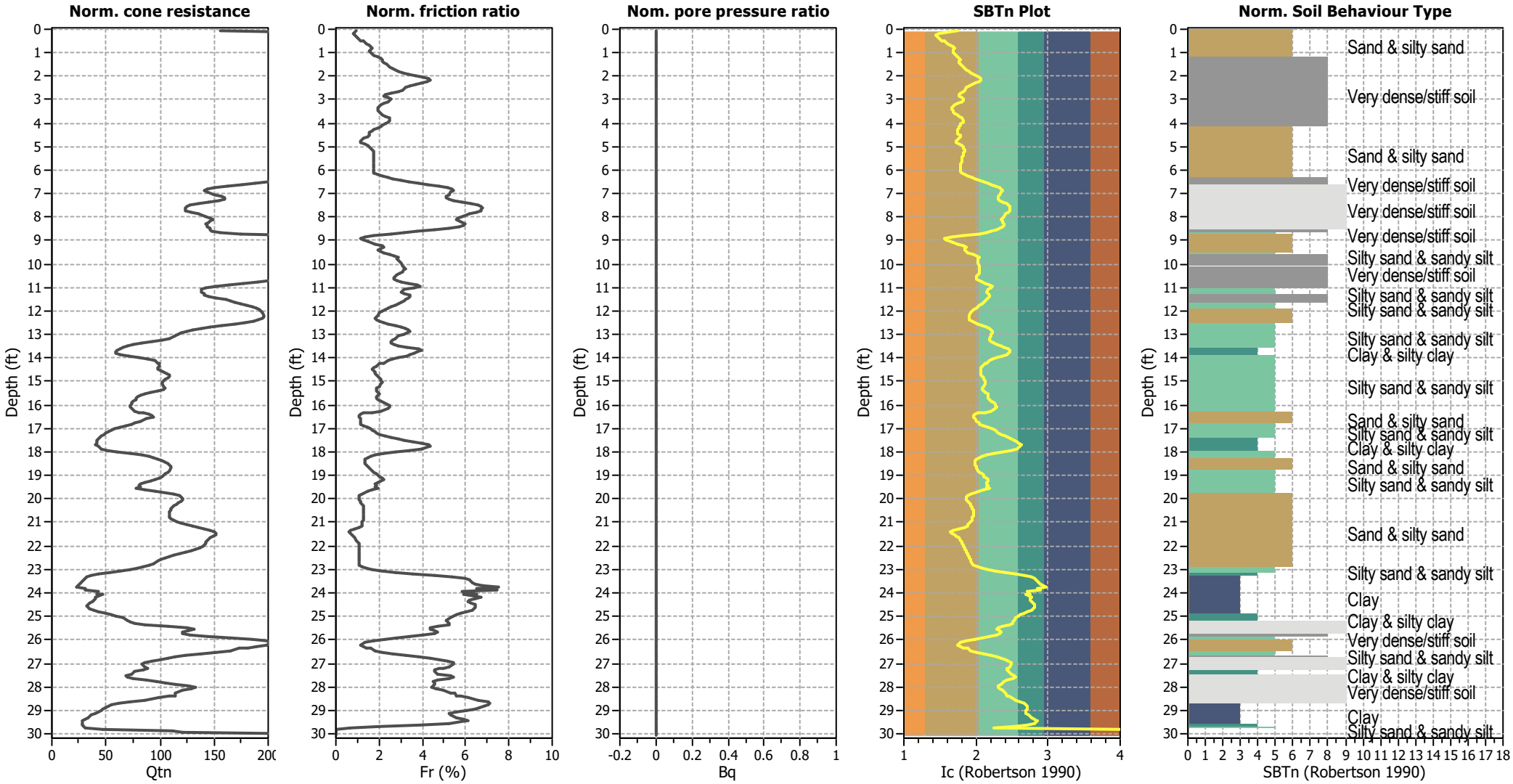
Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



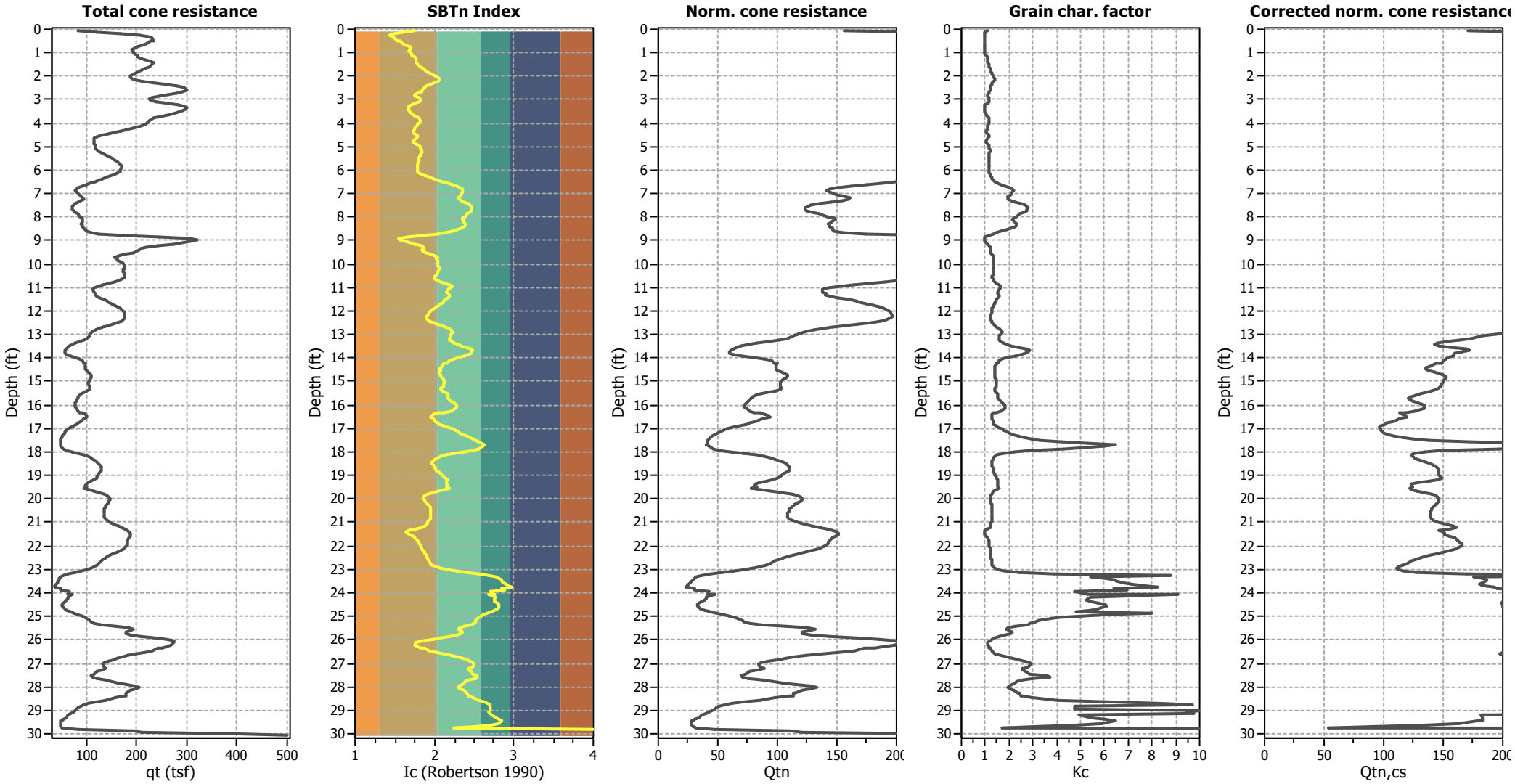
Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

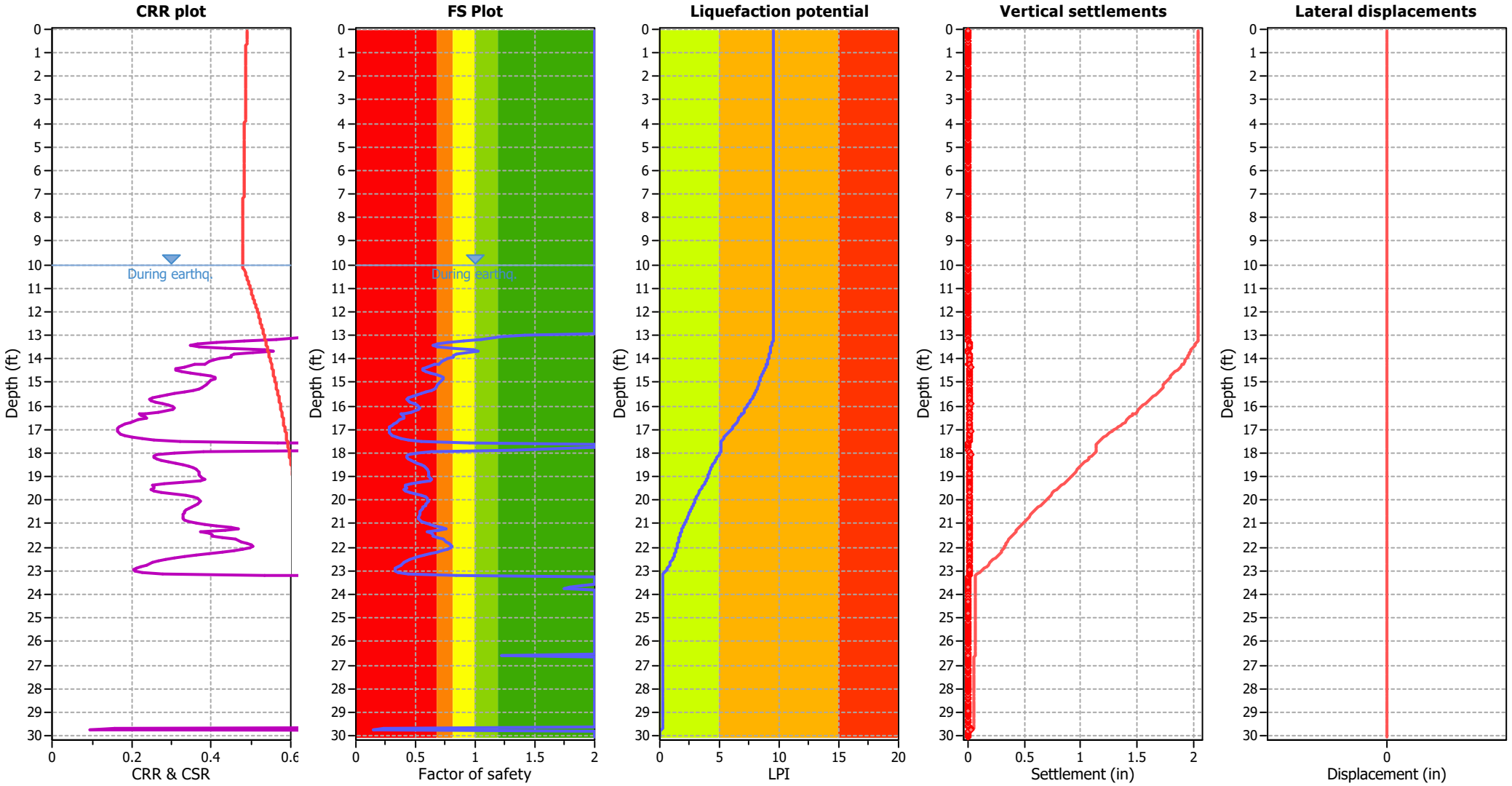
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_o applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

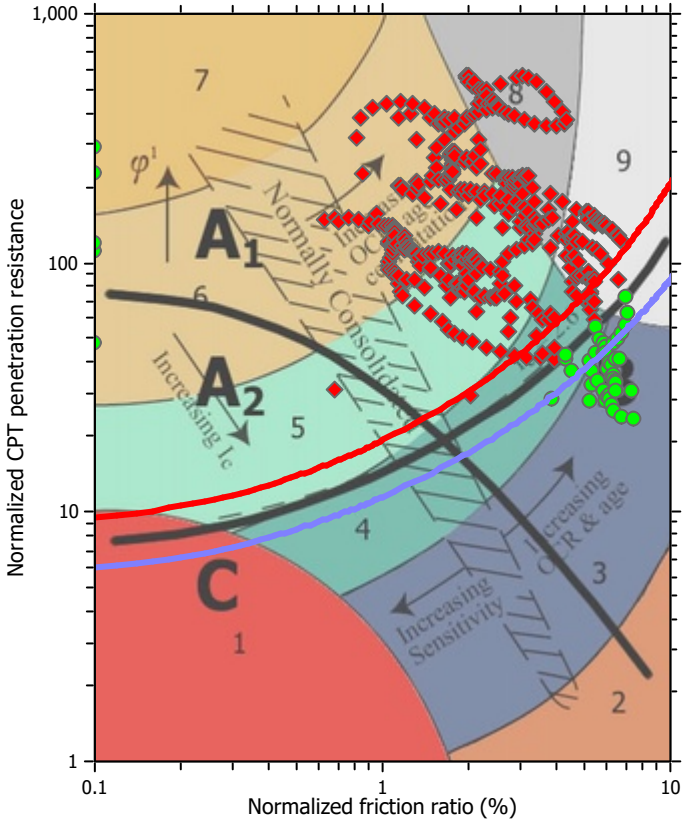
F.S. color scheme

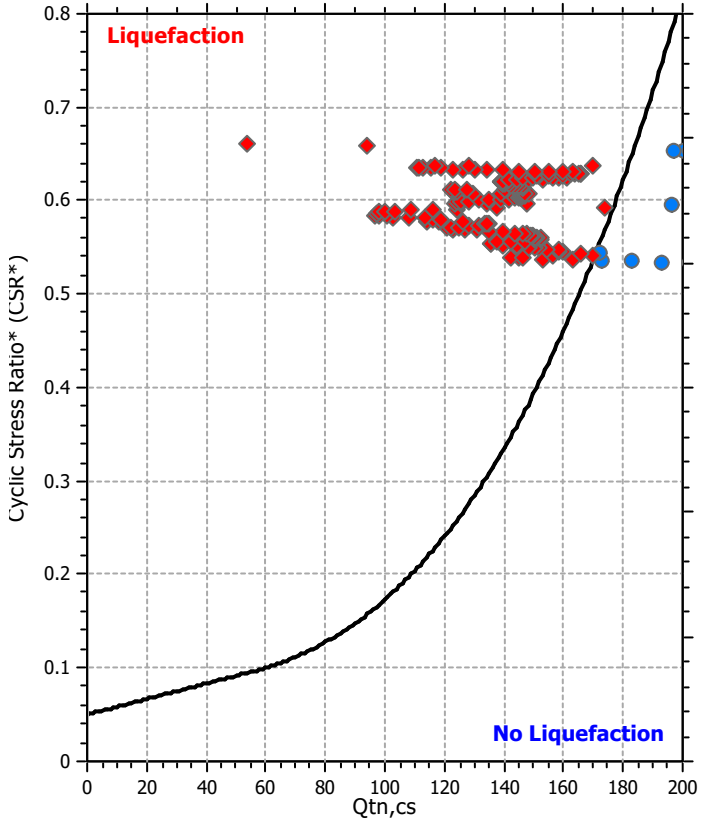
- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

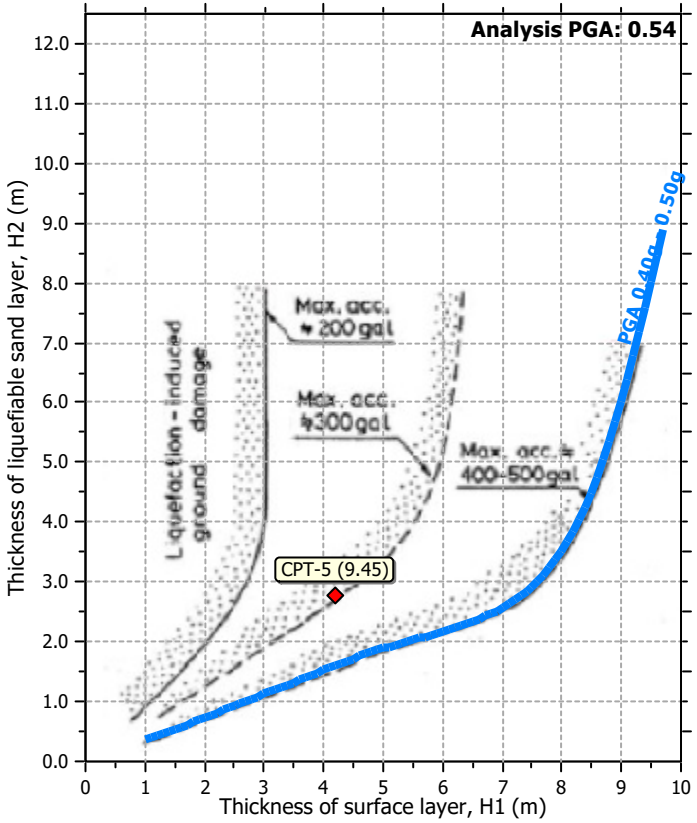
LPI color scheme

- Very high risk
- High risk
- Low risk

Liquefaction analysis summary plots



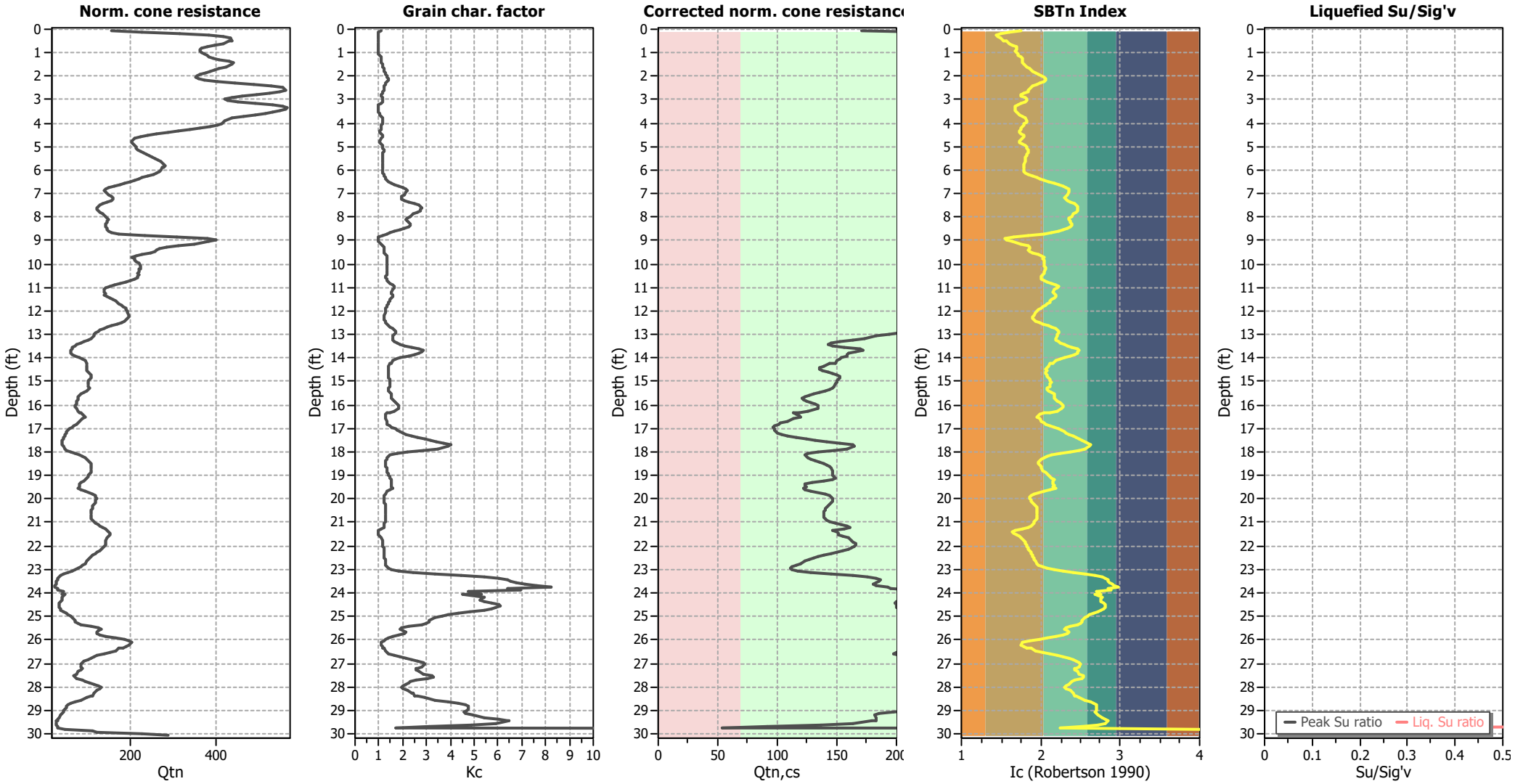




Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

Check for strength loss plots (Robertson (2010))



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

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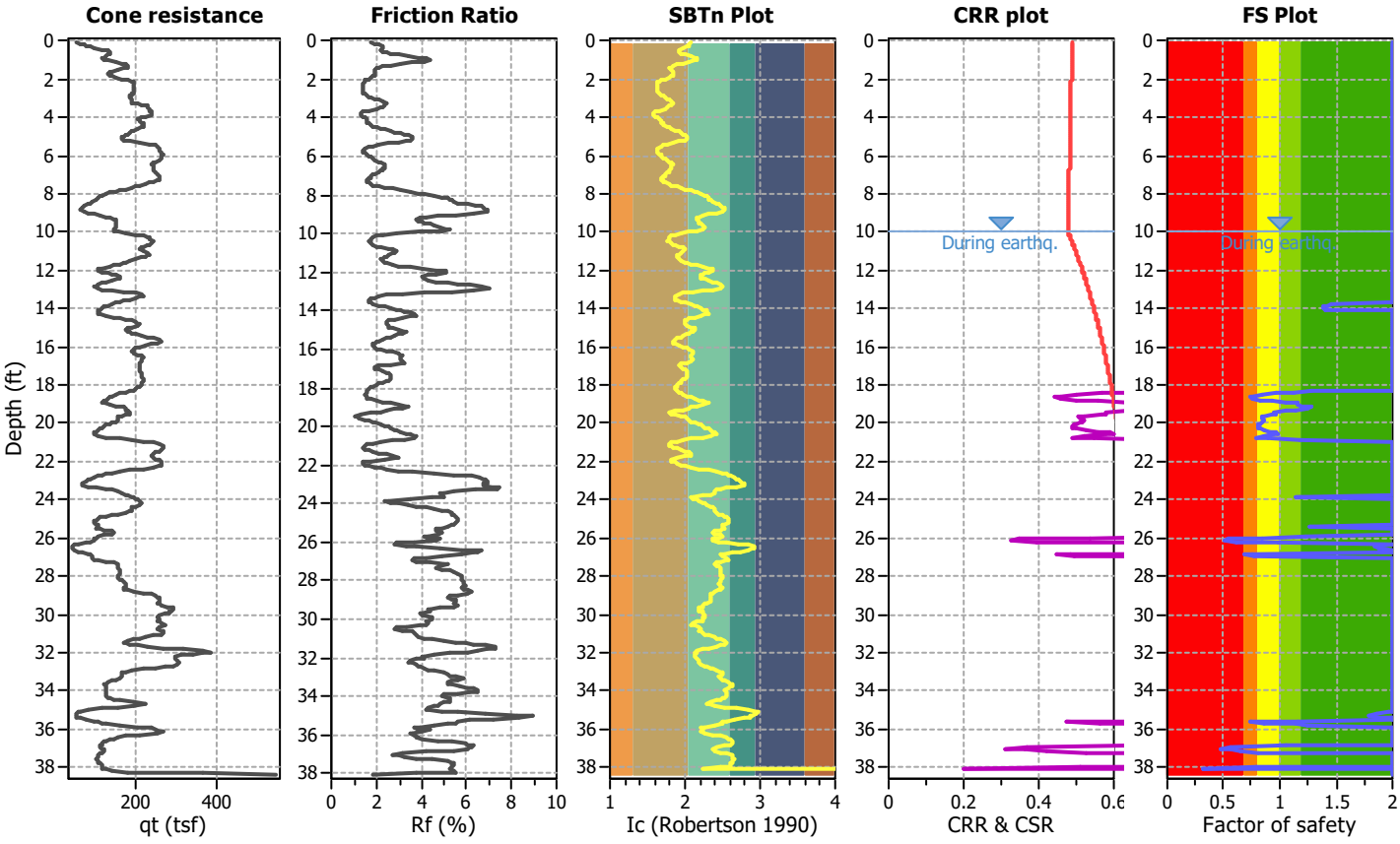
LIQUEFACTION ANALYSIS REPORT

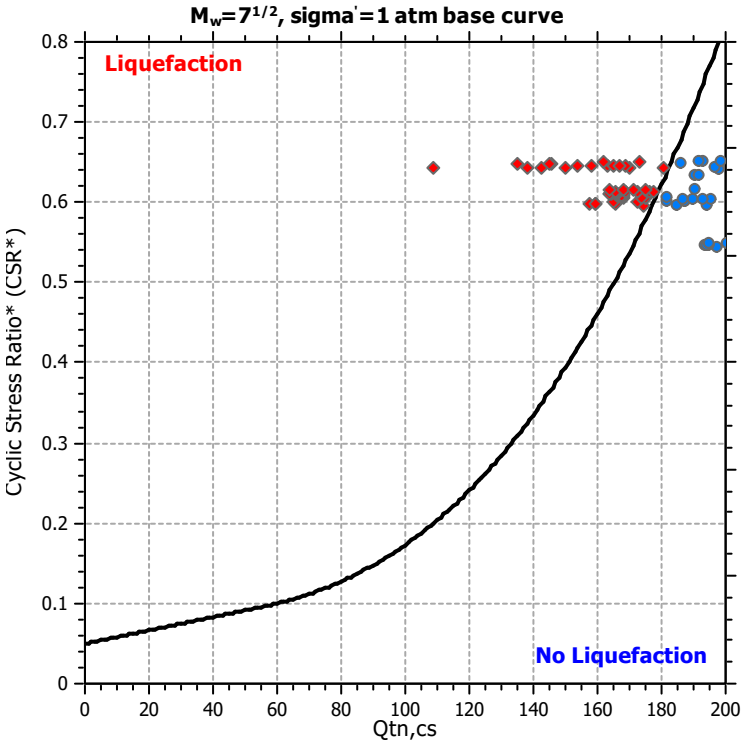
Project title : Citro Potential School Site (10-16564G) **Location : Bonsall, CA**

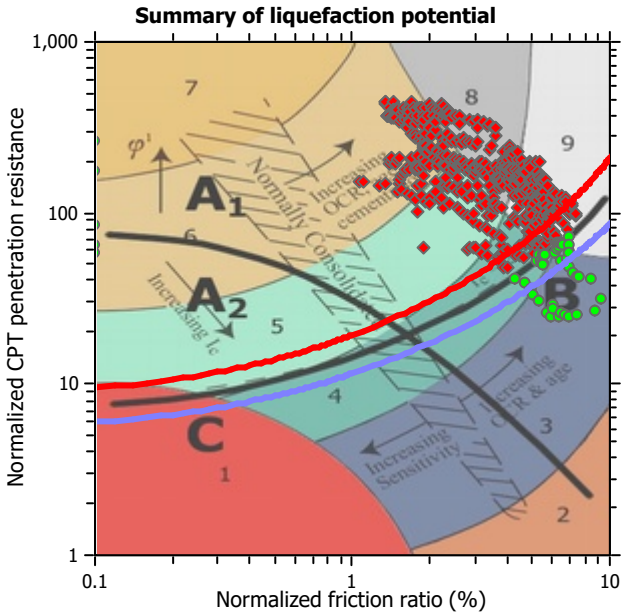
CPT file : CPT-6

Input parameters and analysis data

Analysis method:	Robertson (2009)	G.W.T. (in-situ):	23.00 ft	Use fill:	No	Clay like behavior applied:	All soils
Fines correction method:	Robertson (2009)	G.W.T. (earthq.):	10.00 ft	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	7.70	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.54	Unit weight calculation:	Based on SBT	K_σ applied:	No		

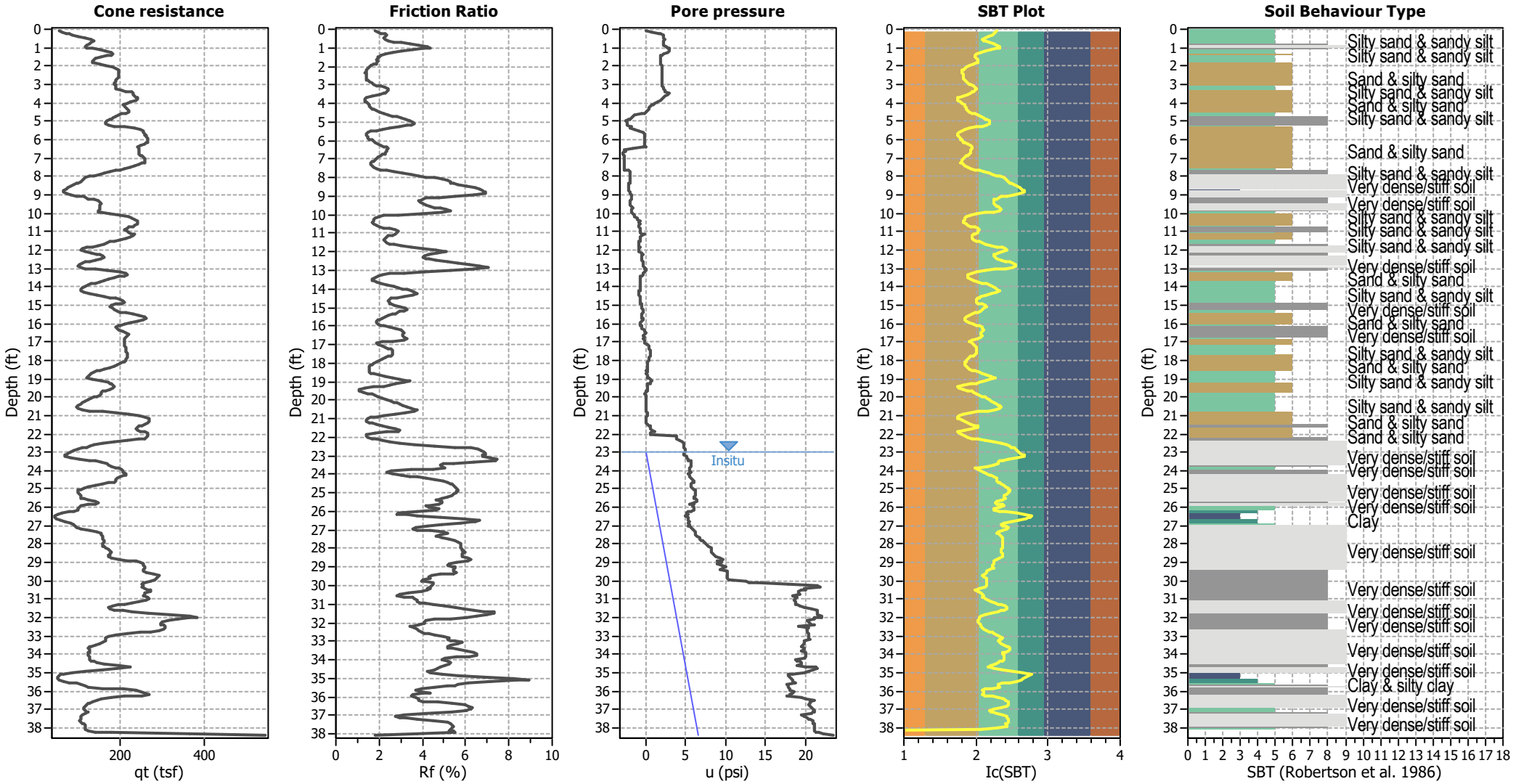






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



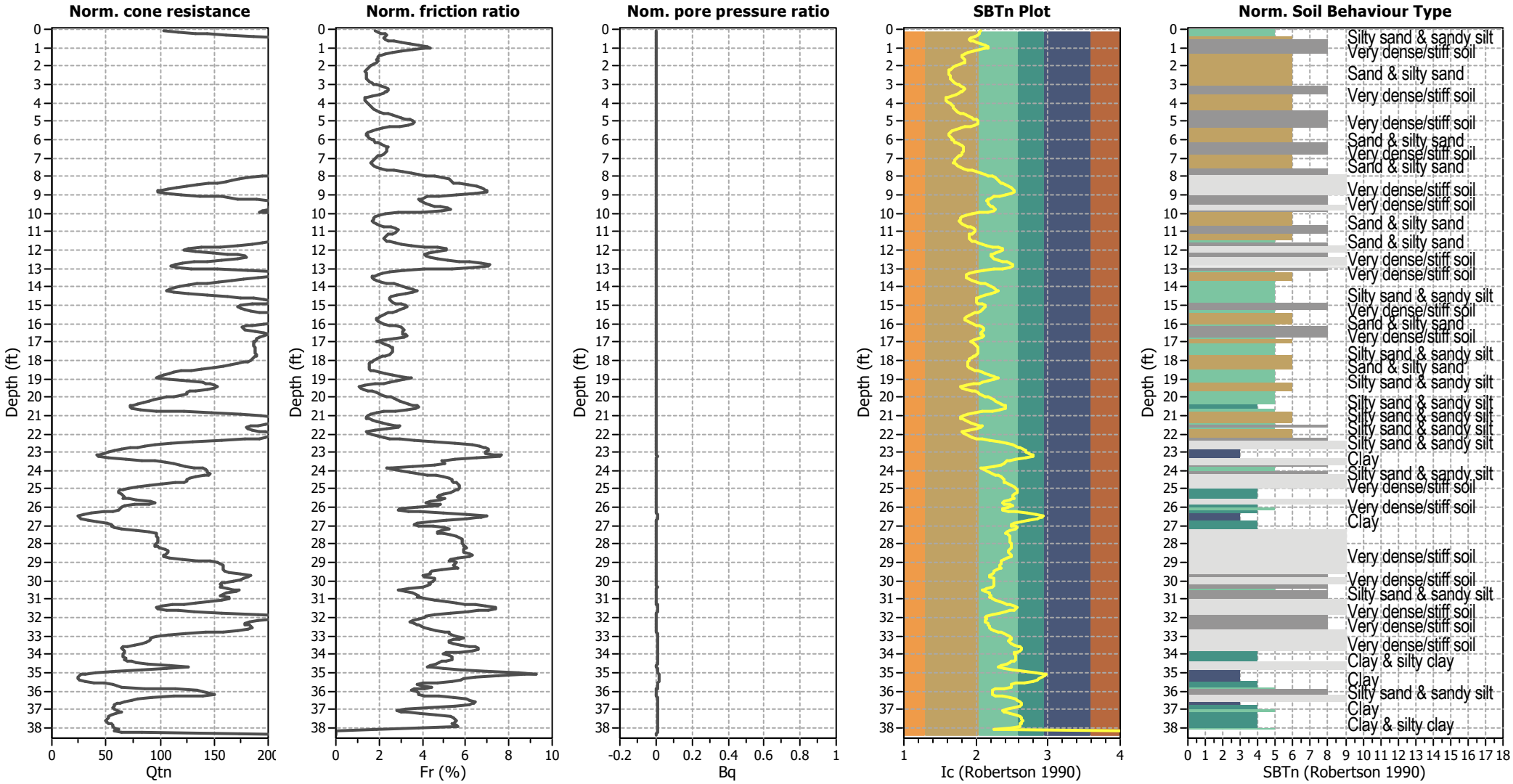
Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



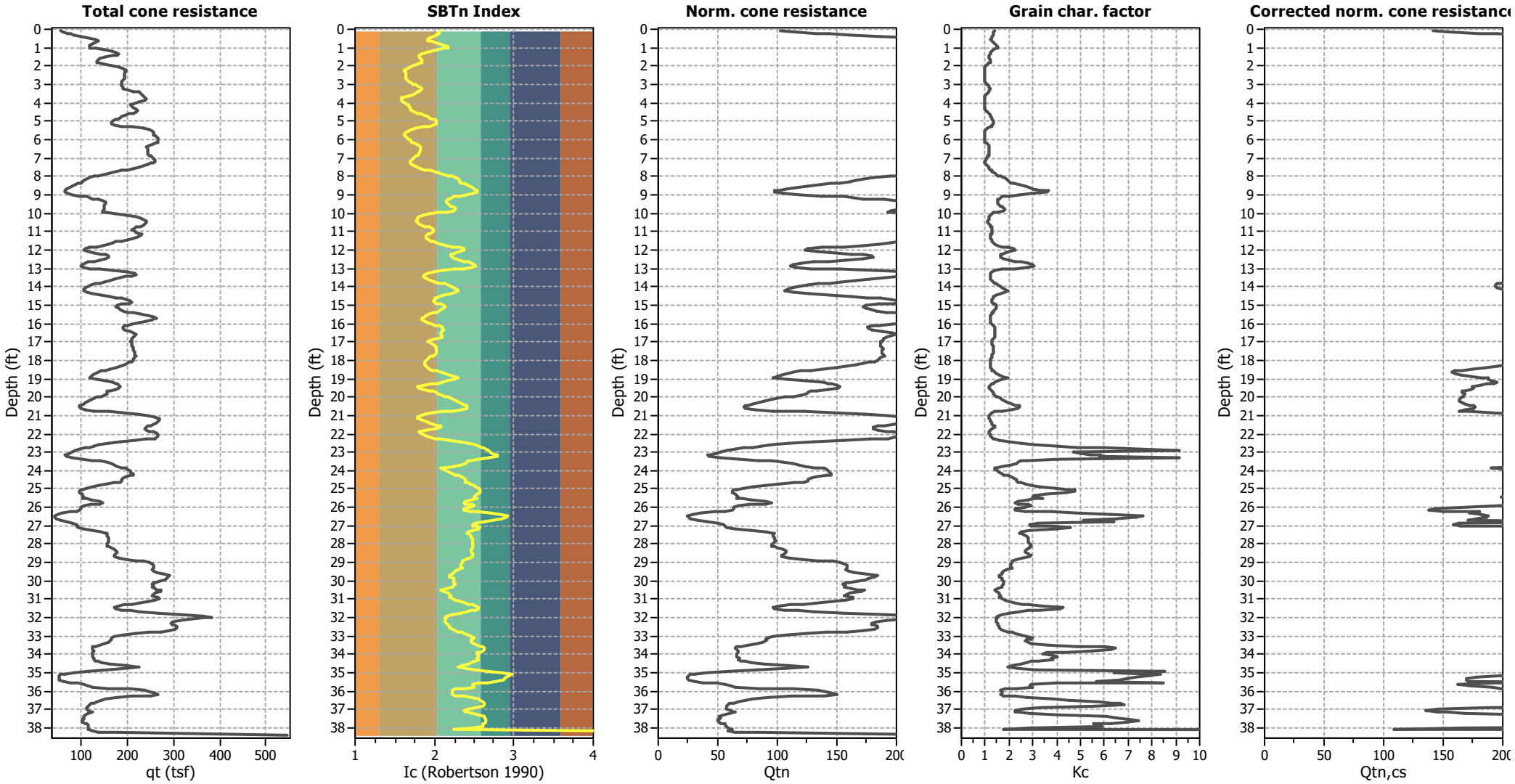
Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

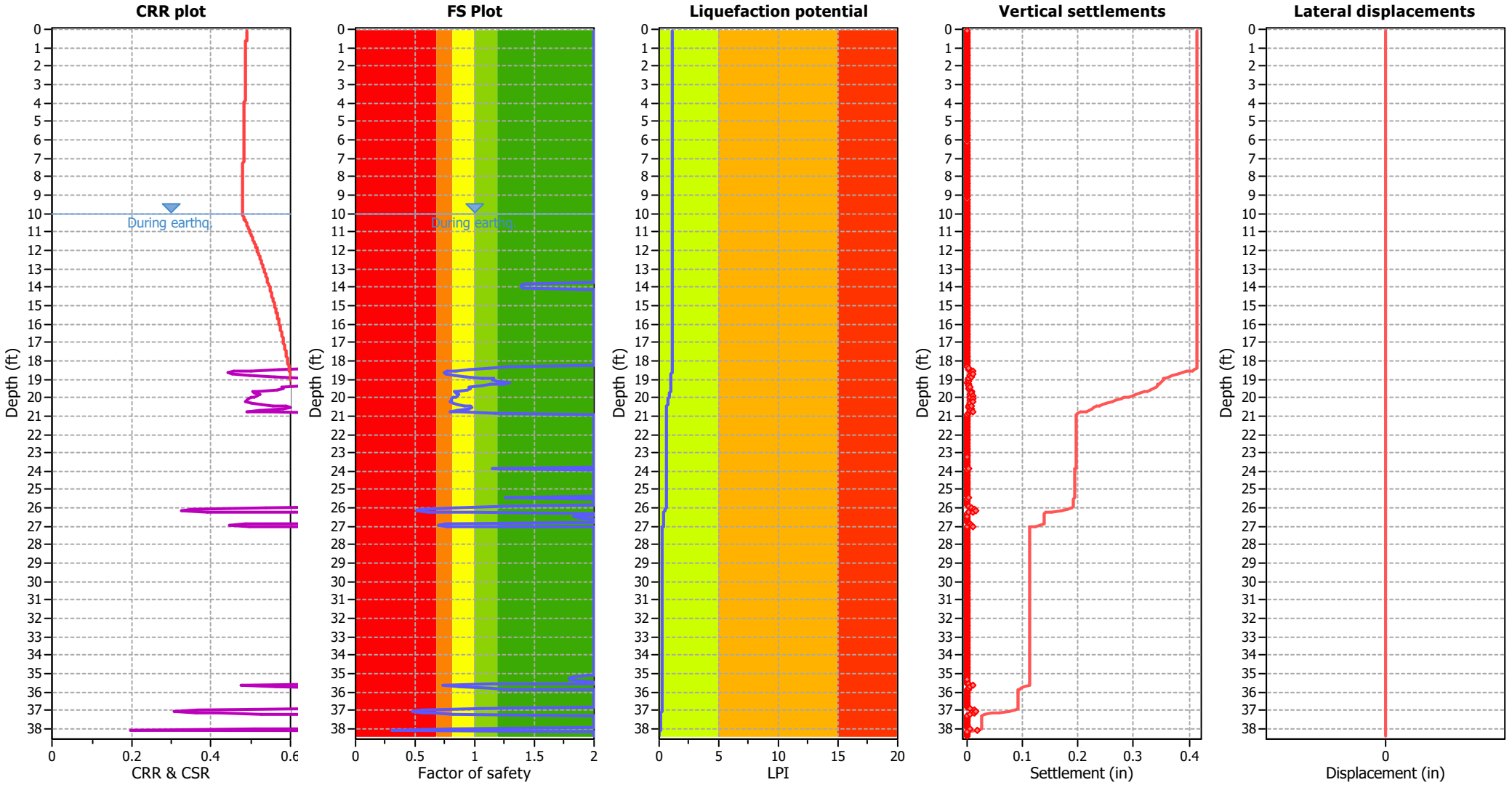
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

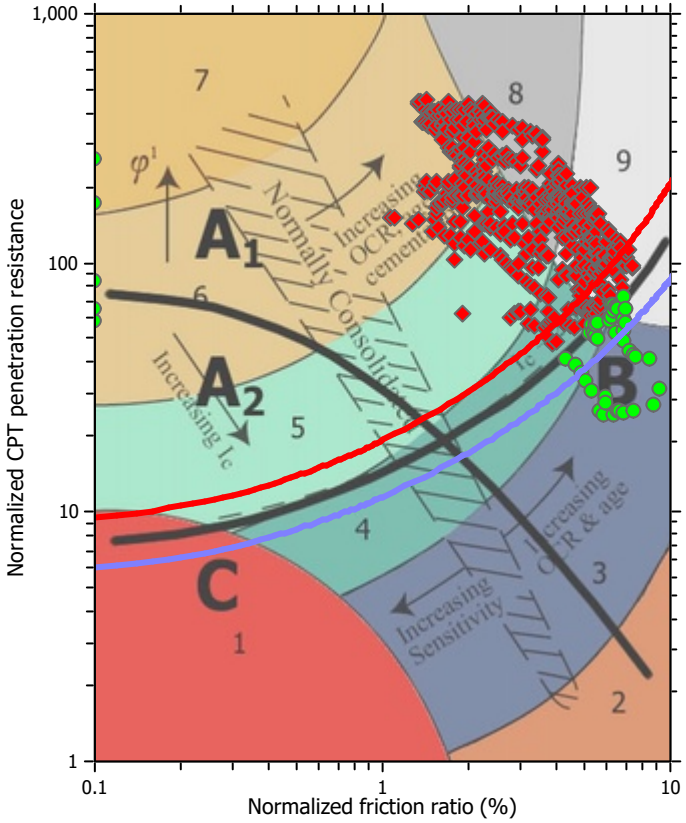
F.S. color scheme

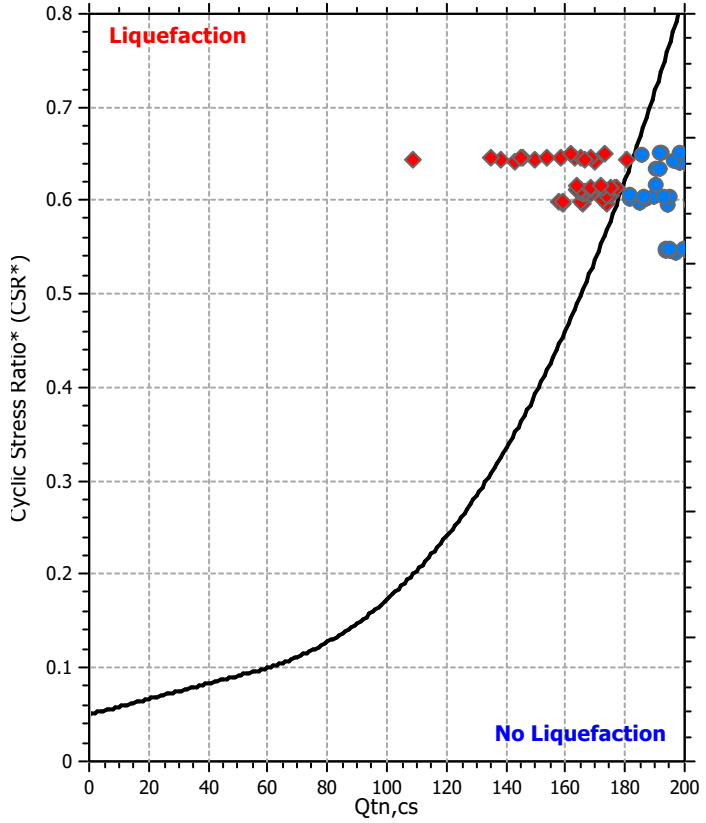
- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

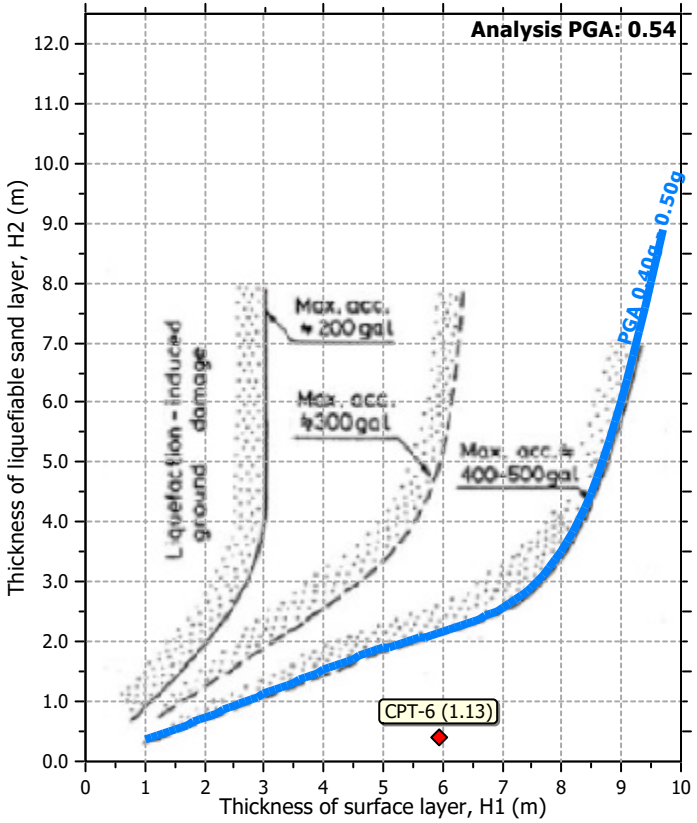
LPI color scheme

- Very high risk
- High risk
- Low risk

Liquefaction analysis summary plots



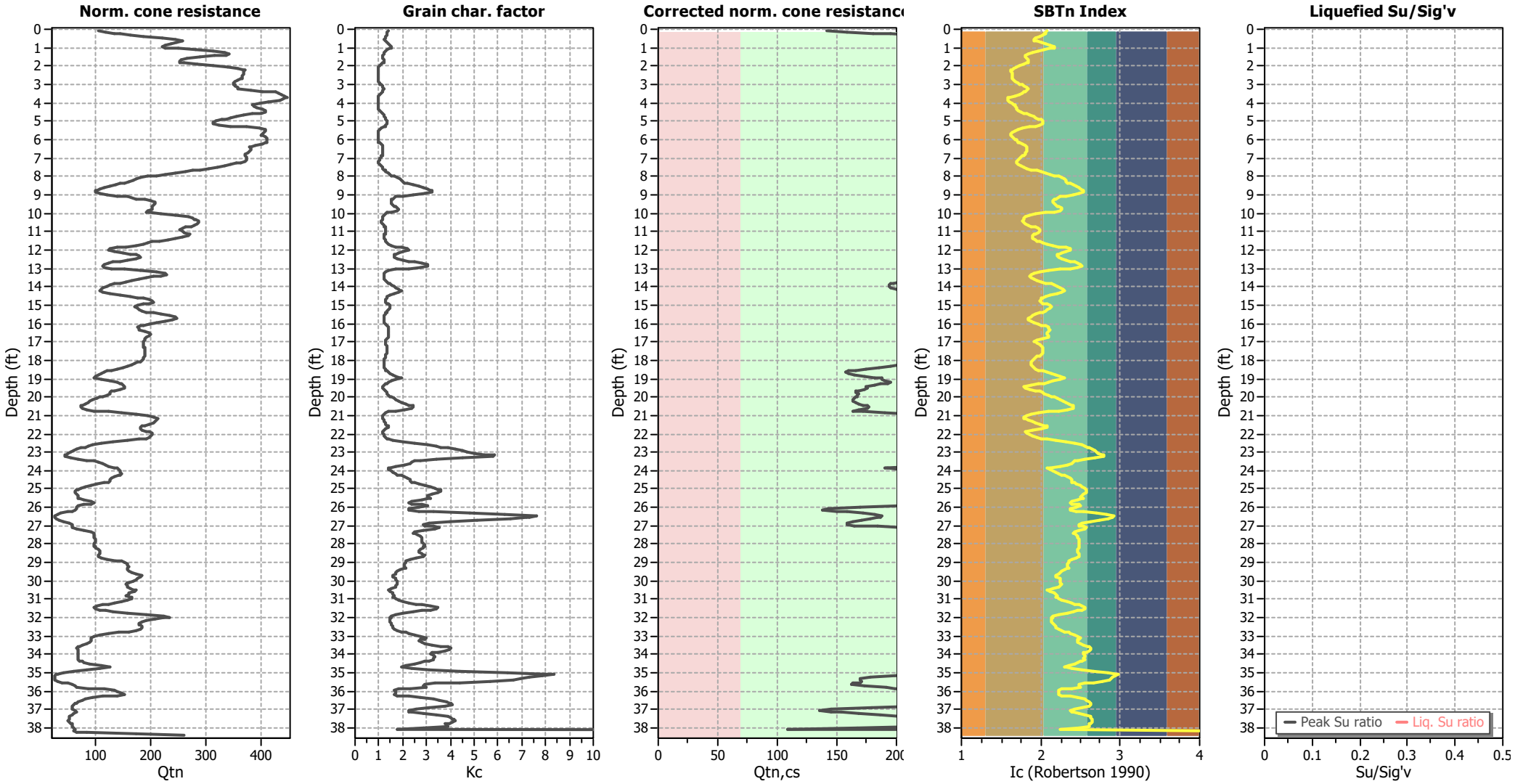




Input parameters and analysis data

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Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

Check for strength loss plots (Robertson (2010))



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

Construction Testing & Engineering, Inc.
1441 Montiel Road, #115
Escondido, CA 92026

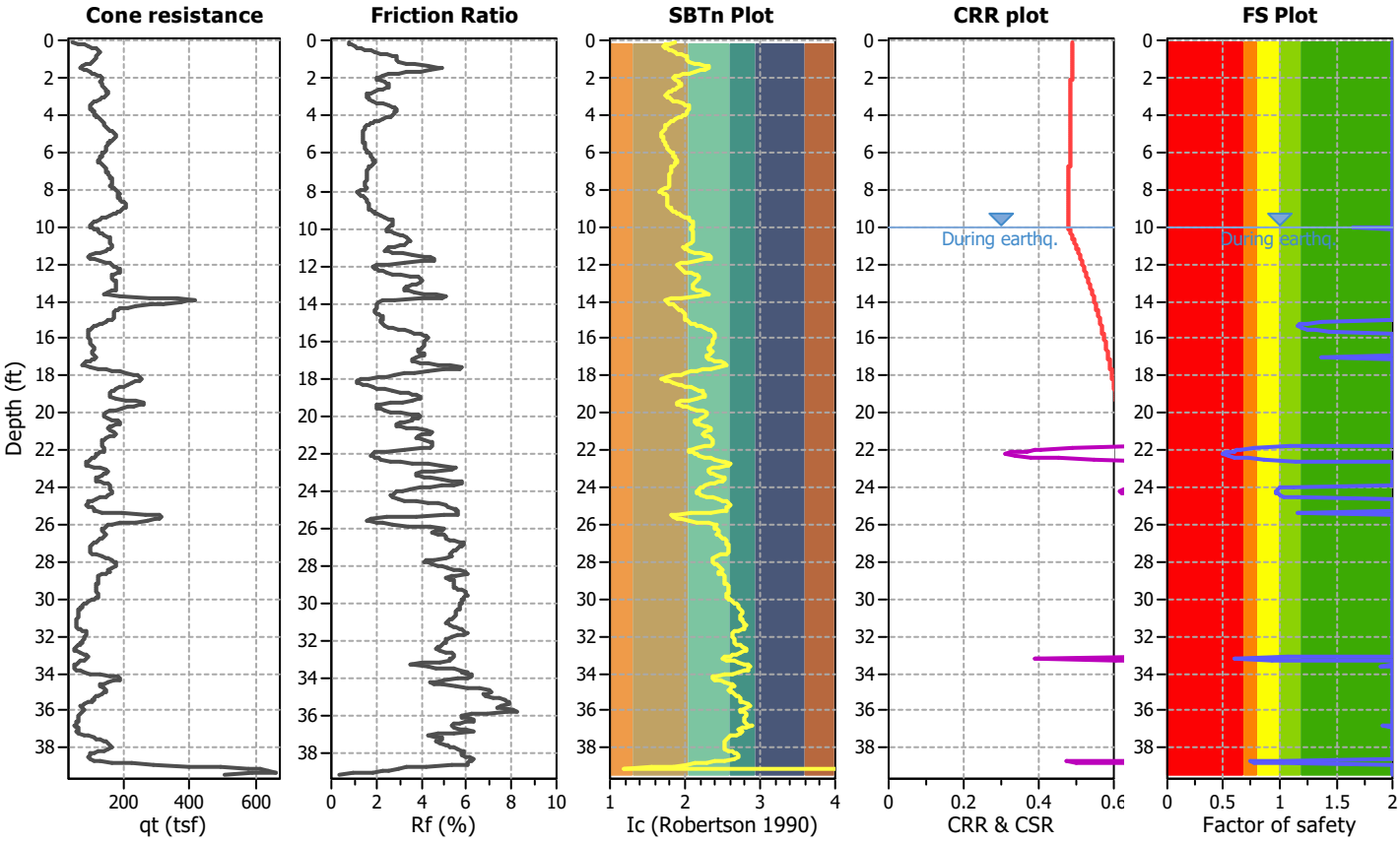
LIQUEFACTION ANALYSIS REPORT

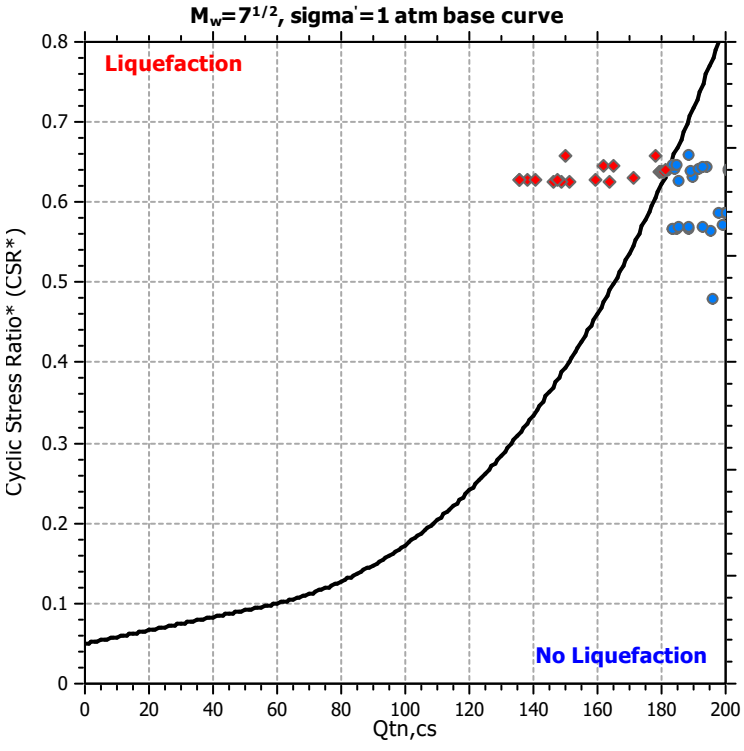
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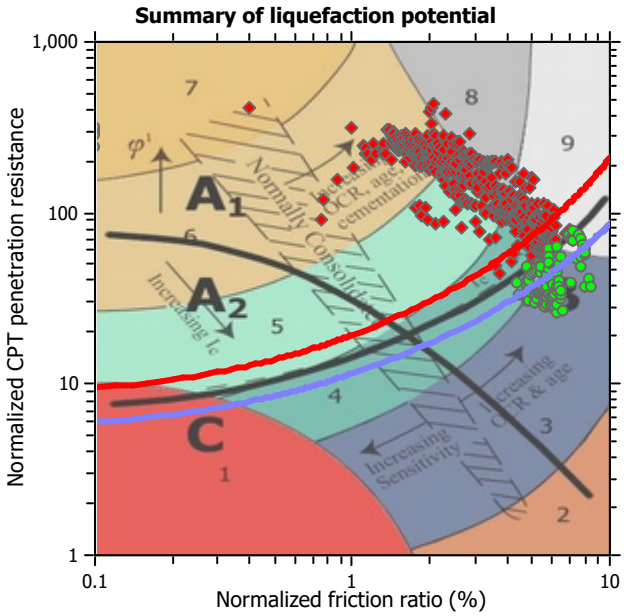
CPT file : CPT-7

Input parameters and analysis data

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Peak ground acceleration:	0.54	Unit weight calculation:	Based on SBT	K_σ applied:	No		

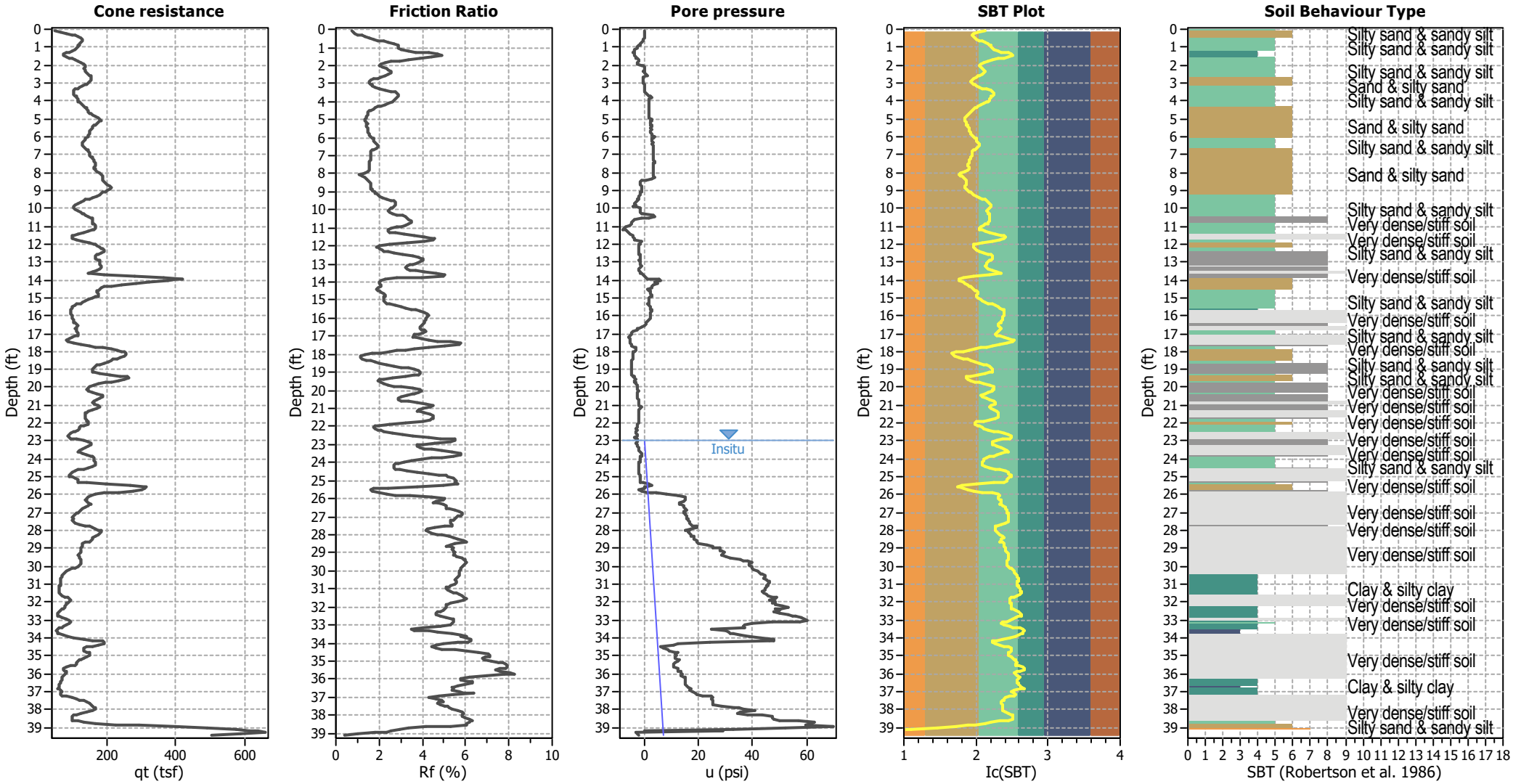






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



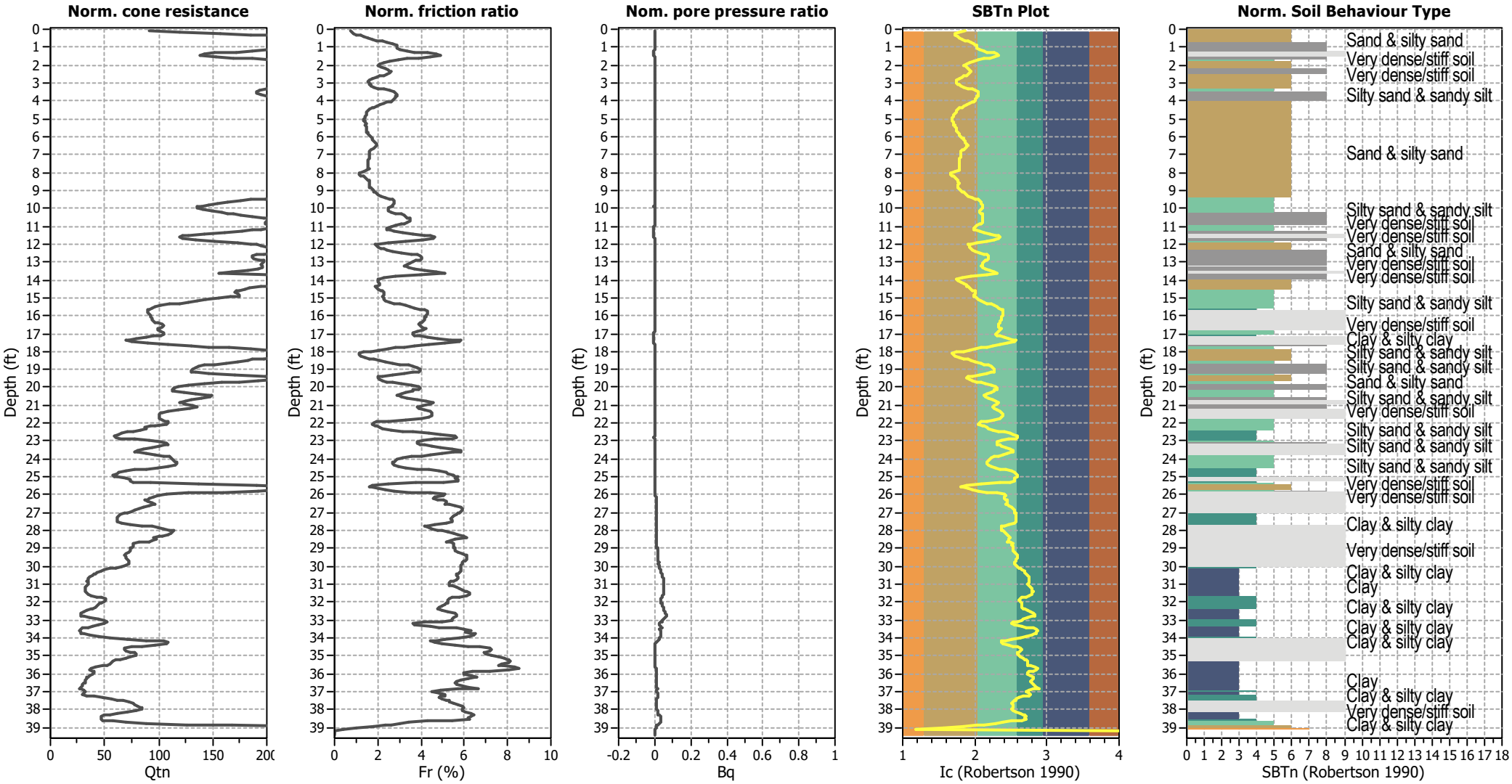
Input parameters and analysis data

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Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



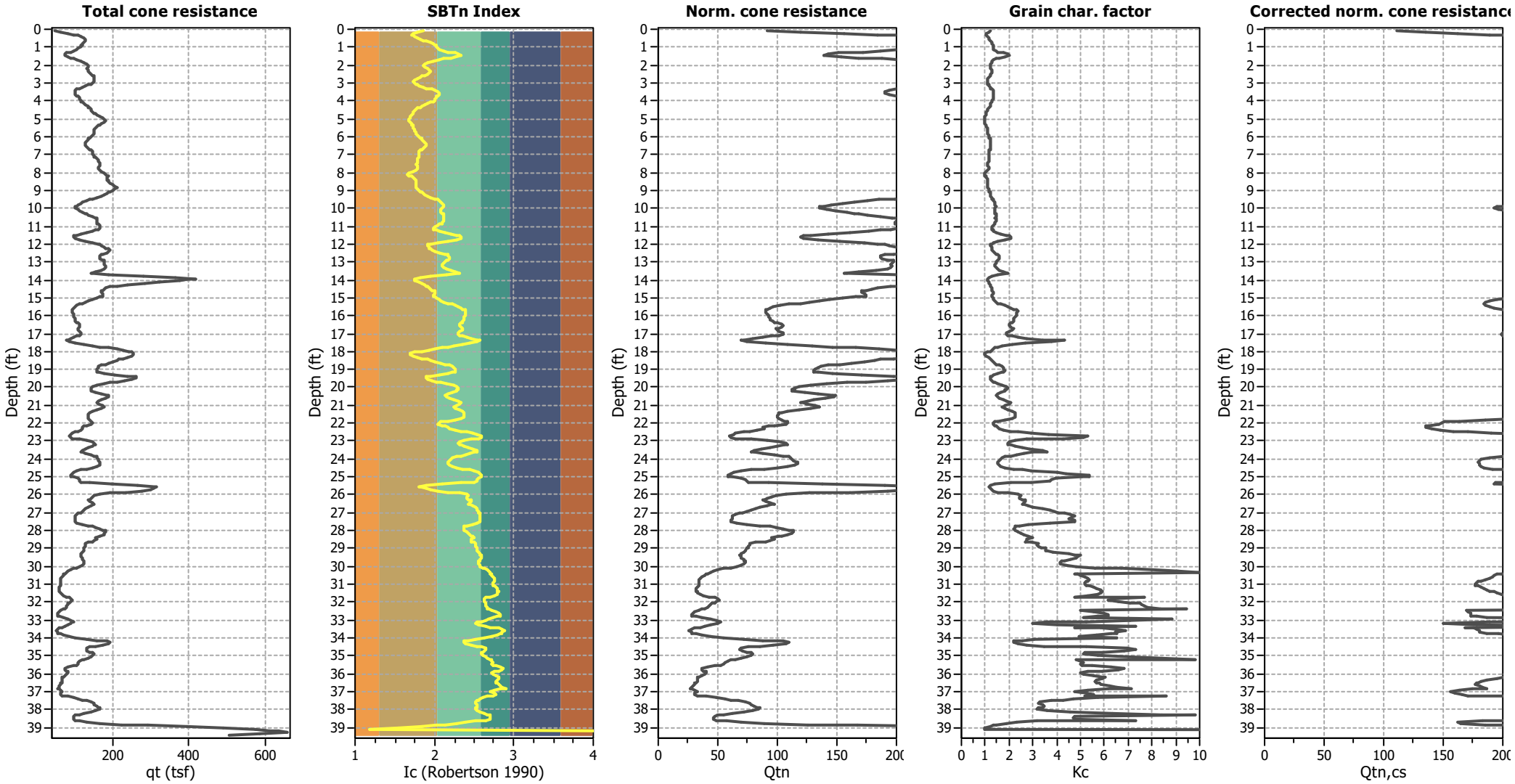
Input parameters and analysis data

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Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

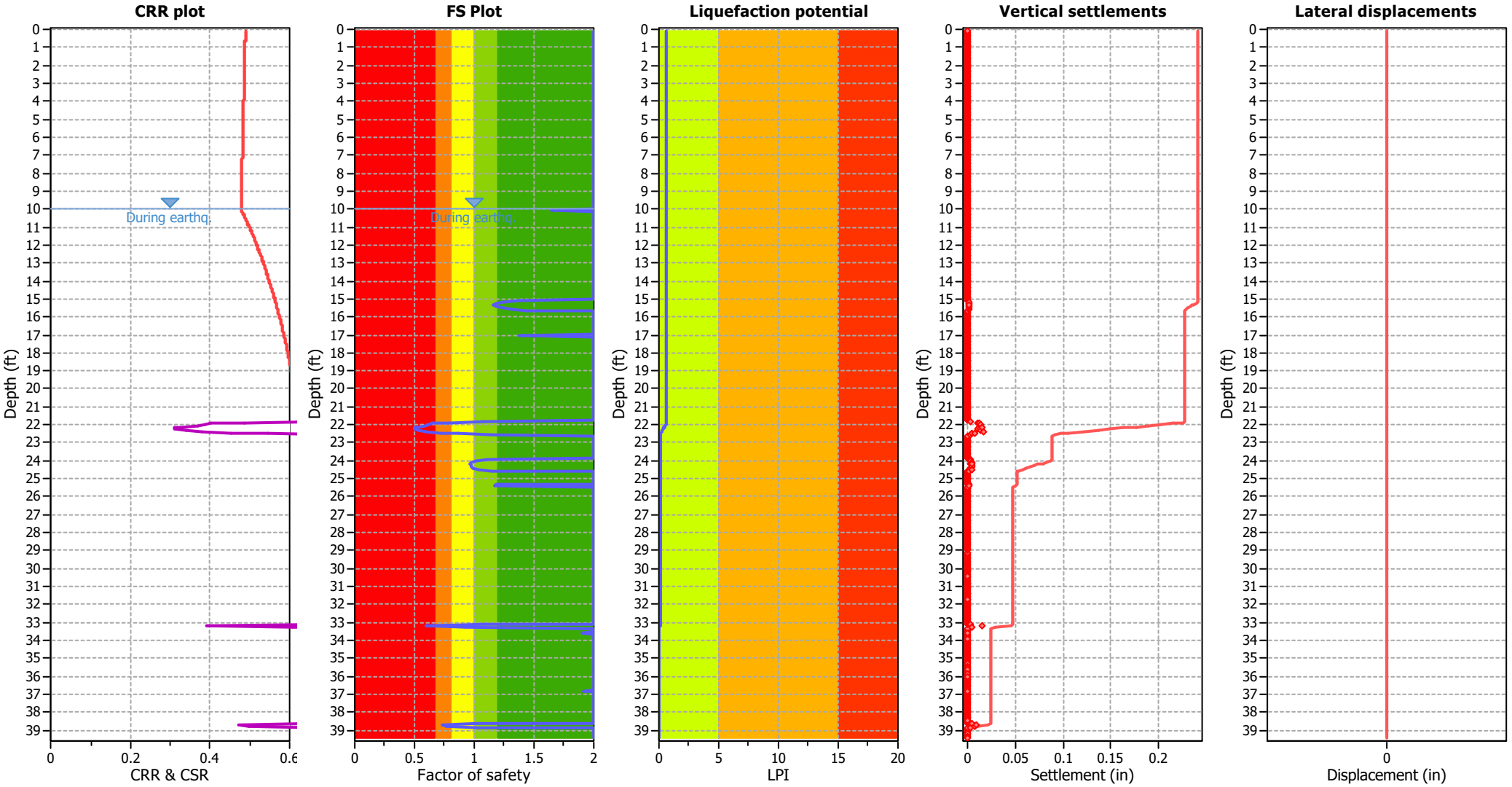
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

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Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_o applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
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Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
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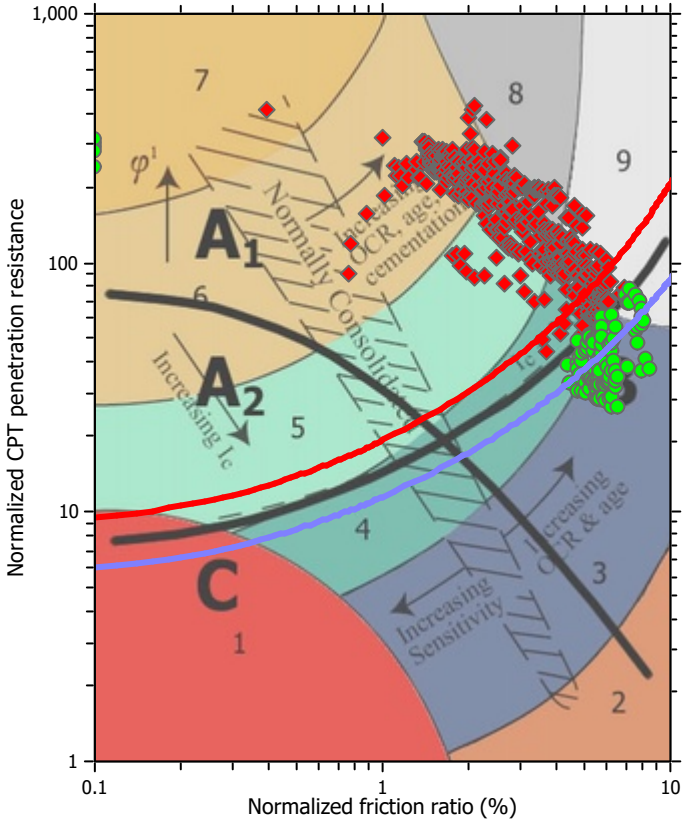
F.S. color scheme

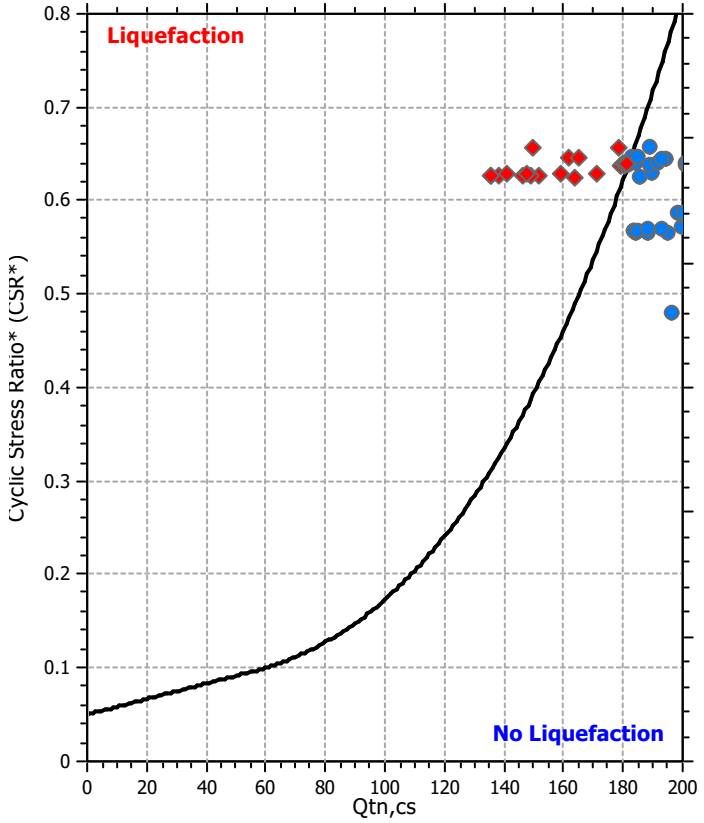
- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

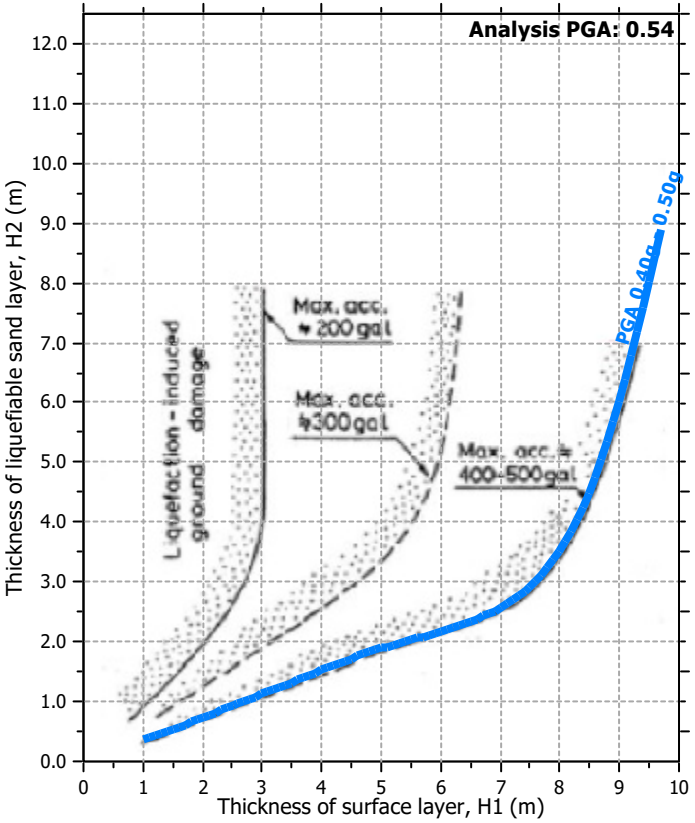
LPI color scheme

- Very high risk
- High risk
- Low risk

Liquefaction analysis summary plots



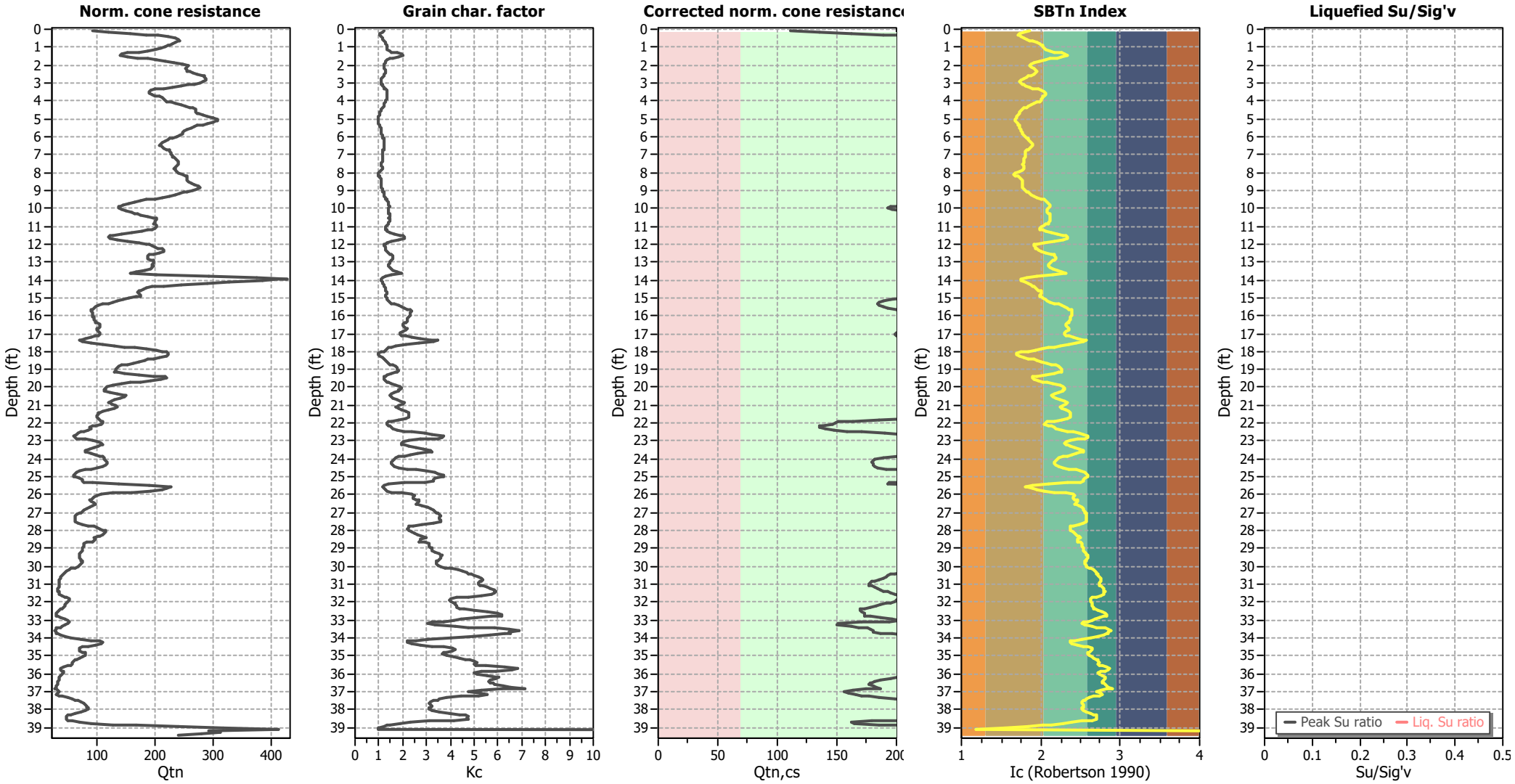




Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_o applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

Check for strength loss plots (Robertson (2010))



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	10.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_o applied:	No
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.54	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	23.00 ft	Fill height:	N/A	Limit depth:	N/A

Michael Baker
INTERNATIONAL

Appendix E: I-15 Corridor Scenic Preservation Guidelines

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TABLE 2.1-1
PROJECT'S CONFORMANCE WITH I-15 CORRIDOR
SCENIC PRESERVATION GUIDELINES

1. SITE DESIGN	
A. Site Planning Standards	
1. Individual projects shall reinforce the character of the sites, the attributes of adjacent projects and preserve the viewsheds, natural topographic features, and natural watercourses.	The design of the Proposed Project demonstrates sensitivity to both the natural setting and to the neighborhood context to ensure that the project reinforces the character of the site, the attributes of the adjacent properties and preserves the view sheds, natural topographic features and natural watercourses. Existing trees along the primary and secondary roadways will be preserved whenever possible and 49.3 acres of the site will remain in groves. No hilltop development is proposed and steep slopes will be avoided. Pursuant to the Conceptual Landscape Plan (Figures 1-12 a–d), extensive landscaping of foreground slopes and streetscapes will buffer the Project Site from view and would be integrated into the existing visual environment to the greatest extent possible. The large wetlands immediately adjacent to the project site will be preserved.
2. Individual projects shall relate on-site open space and pedestrian areas with those of other projects, both visually and in terms of providing for continuous paths of travel.	The Proposed Project includes approximately 6 miles of hiking trails, which will run north and south along the project's ridgeline and along an existing easement road with an uninterrupted westerly view, incorporating existing hiking and horse trails. The proposed on-site trail system has been planned and coordinated with adjacent developments. Additionally, the proposed natural open space area is adjacent to the open space area proposed in the Campus Park development in the northwest portion of the Proposed Project site.
3. Building setbacks shall be coordinated between adjacent lots so as to capitalize on usable site area between buildings.	Proposed Project setbacks have been planned to utilize the usable site area in between buildings. The Project Site Plan proposes a standard 5-foot side yard setback for single-family residential lots and 10' setbacks from property lines for multi-family residential lots. Pocket parks, agricultural open space and trails will be utilized as useable common areas.
4. Building orientation shall take maximum advantage of existing views and, create view corridors.	The orientation of the Proposed Project will take maximum advantage of existing views and create view corridors. The primary views are to the west and majority of homes are positioned to appreciate the primary view. The most visual single-family area follows the natural topography with curved streets to minimize graded slopes, and buildings have been limited to two stories and a 35-foot maximum height limit to allow continued viewing opportunities.
5. Ridgeline projects can be highly sensitive and are generally discouraged: a. Ridgeline projects shall maintain a low profile appearance and the natural physical character of the ridgeline shall be	No ridgeline development is proposed with the exception of the water tanks. Hillside development has been minimized with less than 10 percent encroachment into the steep sloped areas of the Proposed Project. The prominent ridges and steeper slopes that are the most visible are preserved in

TABLE 2.1-1
PROJECT'S CONFORMANCE WITH I-15 CORRIDOR
SCENIC PRESERVATION GUIDELINES
(CONTINUED)

substantially maintained; b. Ridgeline projects shall be limited to one story; c. Ridgelines that have been graded or disturbed shall be supplemented with a sufficient amount of trees, shrubs and ground cover to minimize visual impacts resulting from such disturbances.	open space, along with 49.3 acres of the existing groves, retaining the visual character of the property.
6. A combination of earth berm and/or wall techniques shall be provided to buffer noise.	The Proposed Project includes a combination of barrier materials for sound attenuation. Specifically, acceptable barrier materials include, but are not limited to, masonry block, wood frame with stucco, 0.5-inch-thick Plexiglas, or 0.25-inch-thick plate glass
B. Parking and Circulation Design Standards	
1. Use of public right-of-way for service loading/unloading shall be avoided. Adequate on-site service and delivery areas, including provisions for circulation, shall be provided. Service areas shall be separated from building entrances and public access areas when possible. Storage and loading areas shall not be located in the front yard.	The Proposed Project does not include commercial or industrial uses; therefore, service and industry areas are not incorporated into the project design. The Proposed Project will provide adequate circulation and improvements to the existing roadway system.
2. Project entries shall provide for safe and efficient circulation; a. Project entries and the transition from major circulation routes into the project interior shall be accomplished through the use of landforms, open space, landscape plantings and architectural elements (i.e., walls, signs, etc.); b. The number of driveway entrances into parking areas from public streets shall be minimized. Use of common easements for parking and circulation systems integrated between properties shall be encouraged; c. Safety lighting shall be provided at all street intersections and on project drives, entries, walkways and parking areas.	a. Project entries have incorporated different landforms, landscaping, and architectural elements. The project's primary entry will incorporate a low visibility wall and community identification sign that meets the County's community identification sign guidelines. b. The number of driveway entrances into parking areas from public streets shall be minimized. The shared park/school parking is located in the southwest corner of PA 3. The only access is via Street Q, the cul-de-sac between PAs 2 and 3. c. . Safety lighting will be provided according to the San Diego County Light Pollution Code.
3. Parking areas or structures shall be designed as integral components of the overall design of specific projects. Parking areas shall be bermed or screened from street views where possible.	The proposed residential lots have sufficient area to provide at least two on-site parking spaces consistent with the Zoning Ordinance, and will be screened from street views and landscaped when possible. Single-loaded parking on certain streets, private garages and additional guest parking has been included to minimize the impact of street parking. Common area residential parking lots are not proposed. Common parking areas in the multi-family areas and the shared park/school parking located within Planning Area 3 will be screened from the public street
4. Development of bikeways shall be encouraged.	The Proposed Project includes a trail system intended as a non-motorized multi-use trail system

TABLE 2.1-1
PROJECT'S CONFORMANCE WITH I-15 CORRIDOR
SCENIC PRESERVATION GUIDELINES
(CONTINUED)

	that accommodates bicycles.
5. Separation of pedestrian and bikeway or automobile traffic throughout a project shall be developed through the use of differing paving material or painting/coloring techniques.	Pedestrian trails and bikeways would be constructed of decomposed granite gravel, and are separated from automobile traffic through the use of setbacks, curbs and landscaping.
6. Definition of pedestrian paths and crossings shall be developed through the use of differing paving material or painting/coloring techniques.	Crosswalks will be differentiated from the typical paving materials. Trails will be comprised of decomposed granite. While pedestrian paths and crossings would utilize stone seat walls, special native plantings, lighting, and varying walkway widths.
7. Complete access for emergency (police, fire and ambulance) services to structures shall be provided as required.	The Proposed Project has been designed to meet the requirements for emergency services access. Additionally, a fire access road from Street E to Rice Canyon Road has been incorporated into the Project.
C. <u>Site Lighting Standards</u>	
1. Site lighting shall minimize emission of light rays into both the night sky and neighborhood properties, especially as it pertains to Mt. Palomar Observatory; a. Site lighting shall be limited to that necessary for security, safety and identification and shall be integrated with project landscape design. b. Excessive building or site lighting for decorative purposes shall be discouraged. 2. Site lighting plans that conflict with the character of the community shall be discouraged.	The Proposed Project will comply with all County lighting standards, including the San Diego Light Pollution Code. The overall lighting concept for the community is to be energy-efficient, screen or shield the light source whenever possible, and be effective for safety and security. The Proposed Project includes special landscape lighting limited only to key areas and carefully controlled. Nighttime lighting would be shielded and directed away from riparian habitat adjacent to the development.
D. <u>Landscape Design Standards</u>	
1. Visual screening for portions of development projects shall be provided to include satellite dishes, parking, and service areas located in viewshed areas.	The only common residential parking areas proposed are in the multi-family areas and are screened from the public street. The park/school parking lot located within Planning Area 3 would also be screened from the public street. No satellite dishes or service areas are proposed.
2. Project boundary landscaping shall complement adjacent landforms and plant materials.	The Conceptual Landscape Plan includes landscaping, including boundary landscaping, designed to reflect the Fallbrook region, which consists of gray-green native plantings contrasting with verdant groves, and oak woodlands. This pallet would complement adjacent landforms and plant materials.
3. Landscape plans shall utilize native and drought-tolerant plants where possible, per the plant list provided by County staff.	The Conceptual Landscape Plan for the Proposed Project will utilize native and drought-tolerant plants where possible. Trees, shrubs, and plantings have been proposed for drought tolerance as well as compatibility with the rural and natural setting of Fallbrook's agricultural heritage.
4. Trees and plantings adjacent to pedestrian paths and within parking areas shall be selected to enhance the human scale;	The Proposed Project includes landscaping to provide transitions between development and surrounding open space areas, screen and buffer

TABLE 2.1-1
PROJECT'S CONFORMANCE WITH I-15 CORRIDOR
SCENIC PRESERVATION GUIDELINES
(CONTINUED)

a. Tree canopies shall be encouraged to soften the visual impact of vehicular circulation and parking areas and relieve them from heat build-up. Trees shall be placed away from entrances to buildings, parking lots and street intersections for visibility and safety where possible. b. Low scale plantings shall be located adjacent to driveway entrances and street corners where possible and shall not obscure drive visibility. c. Parking areas shall be visually screened with peripheral landscaping wherever feasible. Exposed vehicular use areas shall include a minimum of 10% of the paved areas in landscaping, dispersed throughout the parking area.	edges of development from view, screen and soften manufactured slopes, and provide a buffer between neighborhoods. Tree plantings will be incorporated on slopes, along streets and parkways, and within open space areas to visually shield the project from view.
5. Common open spaces and recreational areas shall be linked by pedestrian pathways to individual lots.	The Proposed Project includes several miles of multi-use trails throughout the site, as well as hiking trails throughout the open space area. Additionally, the Proposed Project designates approximately 5.9 miles of public hiking and horse trails within the site. Pedestrian walkways and trails connect common useable spaces, recreational facilities and public facilities such as the school and nearby transit service area.
6. A "greenbelt" shall be provided in viewshed areas for accommodation of bikeways and/or footpaths.	The Proposed Project includes greenbelts within viewshed areas, as well as preserved orchards. Biking and hiking paths are also provided.
7. Landscape materials that aid in preventing the rapid spread of brush fires shall be provided.	The Proposed Project will comply with the County brush management requirements and will utilize landscape materials that aid in preventing the rapid spread of brush fires. Brush management will be specifically provided for within all sensitive buffer areas. The landscape design for these areas will adhere to the Fire Protection Plan prepared for the Proposed Project.
8. Earth berms shall be rounded and natural in character where possible, designed to obscure undesirable views.	In order to block the project from sight and soften its appearance, naturally appealing berms and vegetation would be used.
9. Major strands of native trees shall be preserved.	There are no major strands of native trees currently on the site. The site has been farmed for agriculture over several decades. However, existing mature native vegetation will be preserved where feasible and new native vegetation will be utilized whenever possible to maintain the rural Fallbrook character.
E. <u>Public Utilities and Safety Standards</u>	
1. New development projects shall be phased with the provision of adequate fire protection services.	Development of the Proposed Project will be phased with the level of available services. Temporary fire management zones have been negotiated with the adjacent property owners so that the development will be phased with adequate fire protection.
2. Fire prevention and suppression in the design of all new projects shall be encouraged.	The Proposed Project includes a fire protection plan that assures the Proposed Project's compliance with

TABLE 2.1-1
PROJECT'S CONFORMANCE WITH I-15 CORRIDOR
SCENIC PRESERVATION GUIDELINES
(CONTINUED)

	all regulations relating to primary and secondary access, water supply, ignition-resistant construction, fire protection systems, fuel modification and defensible space specified in the County Fire Code, County Building Code Brush management zones are proposed around all development adjacent to natural brush.
3. Utilities shall be placed underground (electrical, telephone, cable, etc.), where practical.	Utilities would be placed underground.
4. The alignment of utility infrastructure shall be correlated with the topography, to minimize disruption of natural features within the viewshed areas.	Utility infrastructure has been located within right-of-way easements to minimize disruption of natural features within the view shed areas.
5 Transformers and related utility components shall be placed in vaults or be screened with retaining walls and/or plantings and located to avoid conflict with pedestrian paths.	Transformers, mechanical equipment, utility boxes and meters will be screened using plantings and/or barriers to avoid conflict with pedestrian paths.
F. Development Standards for Steep Topography and Natural Features	
1. Extensive grading of slope areas within viewsheds shall be minimized; a. Revegetation and erosion control shall be provided in all newly graded areas. b. Grading during the wet seasons (November to March) shall be discouraged.	All grading within the Proposed Project is designed and rounded to follow the natural contours and minimize unnatural slopes. Areas disturbed during grading will be revegetated and erosion controls will be provided in the newly graded areas. Grading during the wet season will be avoided when possible.
2. Hillside development shall be integrated with existing topography and landforms. Areas of steep topography, tree stands, hillside agricultural activity and rock outcroppings shall be respected and preserved.	The Proposed Project has incorporated the natural features of the Project Site into design considerations, including the preservation of 91% of all steep slopes within permanent open space easements. Additionally, minimal hillside residential lots are proposed, no hilltop residential development is proposed and rock outcroppings will be preserved.
3. Variety in the development of hillsides shall be encouraged through the use of appropriate site preparation techniques, grading techniques, and in the configuration, size and placement of lots.	Three different building types are proposed in the residential planning areas, each utilizing different grading techniques to configure and locate lots. The single-family areas on the slopes have been designed with curved streets and landscaped slopes to respond to the natural contours of the site and to provide a less uniform look.
4. The arrangement of building sites to optimize and retain significant viewsheds shall be encouraged.	The orientation of the units will take maximum advantage of existing views and create view corridors. The primary views are to the west and majority of homes are positioned to appreciate the primary view.
5. The protection and preservation of the public use of on-site Vista points shall be encouraged.	The Proposed Project will include the preservation of several vista points located along the public ridgeline trail.
6. The visual quality shall be maximized and the erosion potential shall be minimized by planting native and naturalized plants, especially in disturbed areas adjacent to upgraded hillsides and watercourses.	Native plants will be utilized along the unnatural slopes to minimize erosion and maximize visual quality for greater than 50 feet of horizontal distance.
7. Natural watercourses shall be protected and	No major natural watercourses exist on the project

TABLE 2.1-1
PROJECT'S CONFORMANCE WITH I-15 CORRIDOR
SCENIC PRESERVATION GUIDELINES
(CONTINUED)

existing watershed and groundwater resources shall be conserved.	site. The project does not propose to use groundwater except as a secondary source of irrigation of retained groves in dry years As such, groundwater extraction will be minimal and groundwater resources will be conserved.
8. Any grading above 25 percent slope will blend with the surrounding area and be landscaped appropriately to look natural.	Minimal grading is proposed on existing slopes with a gradient greater than 25 percent. This grading will be landscaped with native vegetation that blends into the natural hillside.
2. ARCHITECTURAL DESIGN	
A. Building forms, materials and colors shall complement adjacent topography, landscape and buildings in the area.	
1. Architectural harmony with the surrounding community shall be achieved, through use of natural appearing materials and complementary styles.	The Proposed Project includes "General Architectural Guidelines" within the Specific Plan. The guidelines are intended to ensure that a variety of design elements are incorporated into the design of homes. While certain community-wide elements will have a common design (i.e. landscaping, fencing and signage), a variety of architectural styles are envisioned. A consistent palette of building materials and complementary color schemes, in conjunction with a uniform landscape scheme, will be used to tie several architectural styles together. Consistent with the surrounding community, primary materials will be wood, stucco, brick and stone. In addition, architectural detailing designed to minimize the appearance of building massing, thereby visually reducing the structural scale and creating a "village" feel. All proposed architecture would include "village style" features such as porches, columns, arcades, overhangs, seating areas, and shade trees, which would allow the development to achieve harmony with the surrounding styles of the Fallbrook community
2. Colors for primary building forms shall be coordinated with landscaping materials. Earth tones and muted pastels are preferred for large areas, with primary colors limited to accent points and trim.	The colors of the primary building forms will be earth tones and soft pastels.
3. Building materials used shall convey a sense of permanence and quality.	Building materials in each planning area will complement one another in order to convey a sense of permanence and quality. Primary materials will be wood, stucco, brick and stone.
4. Where a site is visible from higher elevations, roof forms shall be considered integral design elements, with consideration given to colors and pattern of roofing materials.	There are no building sites in the surrounding area that have proposed elevations higher than the proposed site.
5. The use of mirrored glass, which can cause the sun to glare into drivers' eyes and, therefore, a potential safety hazard, shall be prohibited on buildings visible from I-15.	The Proposed Project does not include the use of mirrored glass.
B. Building forms shall be of appropriate scale, provide visual interest, avoid block-like configurations and, where feasible, be integrated into the existing topography.	
1. The use of special detail treatments in roof	The Proposed Project includes detail treatments in

TABLE 2.1-1
PROJECT'S CONFORMANCE WITH I-15 CORRIDOR
SCENIC PRESERVATION GUIDELINES
(CONTINUED)

forms, windows and entries shall be encouraged.	roof forms, windows and entries to allow roof lines, shadow patterns, and architectural detailing to be offset to provide relief and visual contrast.
2. Roof-mounted satellite dishes, solar systems, ventilation ducts and other mechanical equipment shall be integrated into the architectural design, and be screened where visible from adjacent properties or high elevations.	All mechanical equipment will be screened from view.
3. Building forms shall be scaled to step up and away from primary circulation routes and from each other; parallel and continuous building facades and paved surfaces shall be avoided where possible.	Proposed building forms will be non-continuous and stepped up and down in elevation from the primary circulation routes to minimize the appearance of building massing.
C. Signage shall not adversely impact the environmental and visual quality of the area.	
1. All signs shall be limited to the minimum size and height necessary to adequately identify a business location.	The Proposed Project includes signage consistent with all guidelines related to size and height. The proposed signage would be limited to community identification signs. There are no commercial or industrial uses proposed in the project,
2. All signs shall be kept as low to the ground as possible.	All proposed signs will be located as low to the ground as possible.
3. Signs shall be used for identification, not advertisement.	No signs are proposed for advertisement.
4. Signage design shall be carefully integrated with the site and building design concepts to create a unified appearance for the total development. a. Signs shall be part of a comprehensive graphic program for each project.	The Proposed Project includes signage that will integrate the site and building design concepts to create a uniform appearance. Entry monument signage will be placed on a six foot high monument wall and would blend with the site and building design concepts located throughout the community. Entry signs would be constructed of native stone. At the entrance of the project, an orchard monument will be built to maintain the current village and orchard theme of the area.
5. Signs shall be predominately natural materials, non-moving, externally illuminated.	Proposed signs will utilize natural materials and be non-moving and externally illuminated.
6. Off-premise signs shall be prohibited except for temporary real estate directional, community identification and directional signs, as specified in Section 6207 of the County Zoning Ordinance.	No permanent off-premise signs are proposed. Temporary real estate directional signs, community identification and directional signs shall comply with the County Zoning Ordinance.

Michael Baker
INTERNATIONAL

Appendix F: Air Quality and Greenhouse Gas Assessment

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Air Quality & Greenhouse Gas Emissions Assessment for the Bonsall Unified School District Citro School Project

San Diego County, California

Prepared By:

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February 2023

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LIST OF ATTACHMENTS

Attachment A - CalEEMod Output Files – Criteria Air Pollutants & Greenhouse Gas Emissions

LIST OF ACRONYMS AND ABBREVIATIONS

Term	Description
AB	Assembly Bill
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
DPM	Diesel Particulate Matter
EIR	Environmental Impact Report
EO	Executive Order
GHG	Greenhouse Gas
HRA	Health Risk Assessment
IPCC	Intergovernmental Panel on Climate Change
MMRP	Mitigation Monitor and Reporting Program
NAAQS	National Ambient Air Quality Standards
NO_2	Nitrogen Dioxide

Term	Description
NO_X	Nitric Oxides
O_3	Ozone
LED	light-emitting diode
PA-2	Planning Area-2
PM	Particulate Matter
PM_{10}	Coarse Particulate Matter
$PM_{2.5}$	Fine Particulate Matter
ppm	Parts per Million
Project	Bonsall Unified School District Citro School
RAQS	Regional Air Quality Strategy
ROG	reactive organic gases
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCH	State Clearinghouse
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SEIR	Supplemental Environmental Impact Report
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SoCAB	South Coast Air Basin
SR	State Route
TAC	Toxic Air Contaminants
T-BACT	Toxic-Best Available Control Technology
USEPA	U.S. Environmental Protection Agency
VOC	Volatile Organic Compounds

1.0 INTRODUCTION

This report documents the results of an Air Quality and Greenhouse Gas (GHG) Emissions Assessment completed for the Bonsall Unified School District Citro School (Project), which includes the proposal to construct a school accommodating TK through 8th grade on a 12.8-acre site in unincorporated San Diego County in the community of Fallbrook. This assessment was prepared using methodologies and assumptions recommended in the rules and regulations of the San Diego Air Pollution Control District (SDAPCD). Regional and local existing conditions are presented, along with pertinent emissions standards and regulations. The purpose of this assessment is to estimate Project-generated criteria air pollutants and GHG emissions attributable to the Project and to determine the level of impact the Project would have on the environment. Significance levels derived from SDAPCD regulations are utilized to compare modeled Project emissions and determine significance.

1.1 Meadowood Specific Plan Environmental Impact Report

The Meadowood Specific Plan Environmental Impact Report (EIR) (SCH# 2004051028) was certified by the County of San Diego Board of Supervisors on January 11, 2012. The Specific Plan EIR evaluates development of 355 single family and 489 multi-family dwellings, 8 acres of Parkland, a 12.7-acre elementary school site, preservation of 49.3 acres of agricultural lands and 128.5 acres of preserved open space. In addition, the EIR analyzed the proposal to construct a north-south roadway through the site (Horse Ranch Creek Road) and improvements to the off-site roadways, such as State Route (SR) 76, Pankey Road and Pala Mesa Drive. The Specific Plan EIR identifies significance thresholds for all project impacts and includes specific mitigation measures to address both site-specific and cumulative effects of development. Among other issues, the Specific Plan EIR evaluates the effects of air quality pollutants and GHG emissions resulting from Specific Plan development.

Proposed mitigation measures were found to reduce the effects of buildout under the Specific Plan to a less than significant level for all air quality–related issues with the exception of Specific Plan consistency with the San Diego Air Basin (SDAB) Regional Air Quality Strategy (RAQS) and the generation of on-site operational emissions of reactive organic gases (ROG) and coarse particulate matter (PM_{10}) at rates that violate air quality standards. These impacts were found to be significant and unavoidable. All potential impacts related to the Specific Plan's contribution of GHG emissions were found to be less than significant.

The County Board of Supervisors adopted Findings of Fact and a Statement of Overriding Considerations finding the project would have economic, social, or other benefits. A Mitigation Monitoring and Reporting Program (MMRP) was prepared and adopted with the Specific Plan. The MMRP is a binding document and would be applicable to all development in the Meadowood Specific Plan area, including the proposed Bonsall Unified School District Citro School. The specific air pollutant reduction measures contained in the Specific Plan MMRP, which the Bonsall Unified School District Citro School is required to implement, include measures that reduce the emissions generated during both construction and operations of development. For instance, Specific Plan EIR mitigation measure M-AQ-2 requires all development occurring within the Meadowood Specific Plan to use interior coatings with a volatile organic compound (VOC) content of less than or equal to 50 grams per liter, residential exterior coatings with a VOC content of less than or equal to 100 grams per liter, and non-residential exterior and interior coatings with a VOC content of less than or

equal to 250 grams per liter. Additionally, Bonsall Unified School District Citro School will be subject to measures contained in the Specific Plan MMRP designed to protect receptors from concentrations of toxic air contaminants. For instance, mitigation measure M-AQ-4 requires all development within the Specific Plan to utilize Toxic-Best Available Control Technology (T-BACT) and ensure that 10 percent of the construction fleet uses any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters and/or CARB certified Tier I, II, or III equipment.

1.2 Project Location and Description

The Project Site, located in the unincorporated community of Fallbrook, encompasses 11.2 acres of the 12.8 acres of Planning Area-2 (PA-2) of the Approved Meadowood Specific Plan Project. The Site is bound by Horse Ranch Creek Road to the west and south, Rosemary's Mountain to the east, and Shire Court to the north, and lays on Lot 54, Tract 5354, Map 16418 of the Meadowood Specific Plan. Regional access to the Site is achieved by Interstate 15, which is 0.3 mile to the west and SR 76, also known as Pala Road, which is 0.4 mile to the south.

The Project Site is a graded, dirt lot currently used for construction staging. In the northwest corner, the Site is elevated above Horse Ranch Creek Road and Shire Court by approximately 10 feet. The Site at the end of the Shire Court cul-de-sac is at-grade with the street. The southern end of the Site is also at-grade with Horse Ranch Creek Road. Site perimeters along Shire Court and Horse Ranch Creek Road are sloped and landscaped with ornamental vegetation. The area above the slope is flat and surrounded by a chain link fence. A concrete lined drainage channel runs along the western perimeter and drains to a storm basin, immediately south of the Site.

The Project proposes the development and operation of a public school. The proposed campus has been designed for the operation of a K-8 school, although the school could operate a K-5, K-6, or K-8 program. Classroom buildings are proposed in the north and northwest portions of the campus. The administration, library, and multipurpose buildings are generally in the northcentral portion of the campus. Outdoor fields and hardtop play areas are proposed in the southwest, and surface parking would be in the southeast (see Figure 1-1. *Project Site Plan*). The proposed campus includes four sets of classroom buildings. Two in the southwest portion of the site would accommodate kindergarten and the lower grades. The two buildings in the northeast would be used by the upper grades. The main entrance onto the campus would be via the administration building, near the parking lot. Library and multipurpose buildings would separate the lower grades from the upper grades. The multipurpose building would operate as a gymnasium and indoor lunchroom and would include a small kitchen. An outdoor lunch shelter would be constructed east of the multipurpose building. The Project also proposes a music and art building, located between the upper grade classroom buildings in the northeast portion of the campus (see Figure 1-1). Outdoor recreational facilities, including a multipurpose field and basketball courts, are proposed on the northwest corner of the Project site. A kinder play area would be adjacent to the kindergarten building on the southwest portion of the Site. An additional outdoor play area is proposed in the northeast corner of the campus (see Figure 1-1).

Two vehicle access points would be provided from Shire Court and Horse Ranch Creek Road. The Shire Court entrance would be ingress-only from the end of the cul-de-sac that would connect to an onsite driveway along the northeast and eastern perimeters. The driveway would break off into three separate

TK/K, primary grades, and upper grades curbside loading areas in the northeast portion of the campus, mid-eastern area of the campus, and southern portion of the campus, respectively. Vehicles would exit the campus via the second driveway at the southern end of the Project Site on Horse Ranch Creek Road. A fire access lane would be provided on the western perimeter with access from the Shire Court entrance and the parking lot.

Drought tolerant landscaping is proposed along the western and northern perimeters of the campus. Other proposed sustainable features include:

- Building oriented to maximize daylighting and minimize the need for artificial lights.
- Increased insulation values in walls and attic spaces.
- Installation of high-efficiency windows and doors.
- Installation of efficient heating, ventilation, and air conditioning (HVAC) systems for all building spaces.
- Use of Energy Star appliances.
- Installation of water-efficient plumbing fixtures for toilets and sinks.
- Installation of tankless water heater systems.
- Installation of light-emitting diode (LED) technology for all interior and exterior building areas.
- Use of recycled water for common area landscape irrigation.
- Use of drought-tolerant plants in landscape design to minimize irrigation onsite.
- Installation of water-efficient irrigation systems with smart sensor controls.
- Installation of EV charging stations.
- Installation of solar panels.

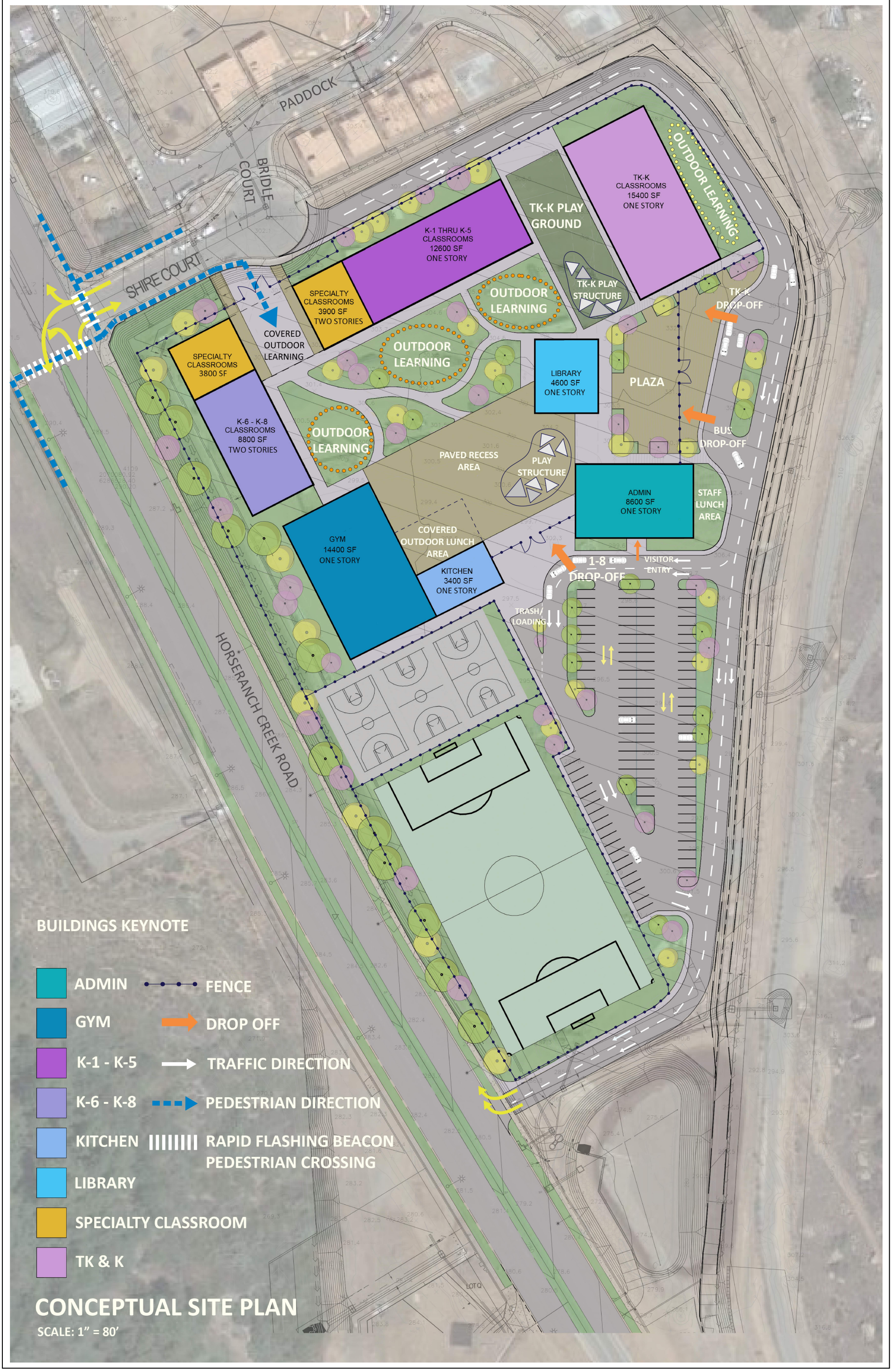
The proposed school would offer one of three elementary programs: TK through 5th grade, TK through 6th grade, or TK through 8th grade. Based on an ongoing demographics study, the Bonsall Unified School District projects the school to have an enrollment of 450 to 500 TK-8 students. The campus, however, would be designed to accommodate up to 650 seats, under any of the program configurations. The Bonsall Unified School District anticipates only students residing east of Interstate 15 and north of West Lilac Road would attend the proposed school.

The proposed school would follow the Bonsall Unified School District's standard school calendar, generally from August to June. Summer programs may also be offered. School hours are anticipated to be from 8:00 a.m. to 3:00 p.m., though teachers and staff may arrive up to an hour before and after normal school hours. The proposed campus would have evening and nighttime events such as back-to-school night, open house, talent shows, and awards ceremonies similar to other schools.

Construction of the proposed school is anticipated to start in the first quarter of 2027 and last 18 months. The proposed school would open in fall 2028. Construction phasing is shown in Table 1-1.

Table 1-1. Project Construction Phasing

Construction Activity	Start Date	Finish Date
Site Preparation	March 2027	April 2027
Site Grading	April 2027	May 2027
Building Construction	June 2027	July 2028
Painting	December 2027	January 2027
Paving	April 2028	May 2028



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Figure 1-1. Project Site Plan

2022-101 Bonsall USD Citro School

2.0 AIR QUALITY

2.1 Environmental Setting

Air quality in a region is determined by its topography, meteorology, and existing air pollutant sources. These factors are discussed below, along with the current regulatory structure that applies to the SDAB, which encompasses the Project Site, pursuant to the regulatory authority of the SDAPCD.

Ambient air quality is commonly characterized by climate conditions, the meteorological influences on air quality, and the quantity and type of pollutants released. The air basin is subject to a combination of topographical and climatic factors that reduce the potential for high levels of regional and local air pollutants. The following section describes the pertinent characteristics of the air basin and provides an overview of the physical conditions affecting pollutant dispersion in the Project Area.

2.1.1 San Diego Air Basin

The Project Site is located in unincorporated San Diego County (County). This region is within the SDAB. The topography in the SDAB varies greatly, from beaches on the west to mountains and desert on the east. Much of the topography in between consists of mesa tops intersected by canyon areas. The region's topography influences air flow and the dispersal and movement of pollutants in the basin. The mountains to the east prevent air flow mixing and prohibit dispersal of pollutants in that direction.

Regional climate and local meteorological conditions influence ambient air quality. The climate of the SDAB is dominated by a semi-permanent high-pressure cell located over the Pacific Ocean. This cell, called the Pacific High-Pressure Cell (or Zone) influences the direction of prevailing winds (westerly to northwesterly) and maintains clear skies for much of the year. The high-pressure cell also creates two types of temperature inversions that may act to degrade local air quality. Subsidence inversions occur during the warmer months as descending air associated with the Zone meets cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. The other type of inversion, a radiation inversion, develops on winter nights, when air near the ground cools through radiation and the air aloft remains warm. The shallow inversion layer formed between these two air masses can also trap pollutants. During mild Santa Ana wind conditions, ambient air quality in the SDAB is affected by air quality in the South Coast Air Basin (the metropolitan areas of Los Angeles, Orange, San Bernardino, and Riverside counties). Air pollutants, specifically the components of smog, are transported to the County during relatively mild Santa Ana weather conditions. Winds blowing toward the southwest transport the polluted air from the South Coast Air Basin over the ocean. The sea breeze brings this air onshore into the County. When the transported smog is at ground level, the highest ozone (O_3) concentrations are measured at coastal and near-coastal monitoring sites. However, when the blown-in smog cloud is elevated, coastal sites may be passed over, and the transported O_3 is measured farther inland.

2.1.2 Criteria Air Pollutants

Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health with a determined margin of safety. O_3, PM_{10}, and fine particulate matter ($PM_{2.5}$) are generally considered to be

regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2) are local pollutants because they tend to accumulate in the air locally. PM is also considered a local pollutant in certain scenarios. Health effects commonly associated with criteria pollutants are summarized in Table 2-1.

Table 2-1. Summary of Criteria Air Pollutants Sources and Effects

Pollutant	Major Manufactured Sources	Human Health and Welfare Effects
CO	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
NO_2	A reddish-brown gas formed during fuel combustion for motor vehicles, energy utilities and industrial sources.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Causes brown discoloration of the atmosphere.
O_3	Formed by a chemical reaction between reactive organic gases (ROG) and nitrous oxides (N_2O) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, solvents, paints, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
$PM_{2.5}$ & PM_{10}	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles, and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
SO_2	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.

Source: California Air Pollution Control Offices Association (CAPCOA) 2013

2.1.2.1 Carbon Monoxide

CO, in the urban environment, is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. CO combines with hemoglobin in the bloodstream and reduces the amount of oxygen that can be circulated through the body. High CO concentrations can cause headaches, aggravate cardiovascular disease, and impair central nervous system functions. CO concentrations can vary greatly over comparatively short distances. Relatively high concentrations of CO are typically found near crowded intersections and along heavy roadways with slow-moving traffic. Even under the most sever meteorological and traffic conditions, high concentrations of CO are limited to locations within relatively short distances (i.e., up to 600 feet or 185 meters) of the source. Overall CO emissions are decreasing because of the Federal Motor

Vehicle Control Program, which has mandated increasingly lower emission levels for vehicles manufactured since 1973.

2.1.2.2 Nitrogen Oxides

Nitrogen gas comprises about 80 percent of the air and is naturally occurring. At high temperatures and under certain conditions, nitrogen can combine with oxygen to form several different gaseous compounds collectively called nitric oxides (NO_x). Motor vehicle emissions are the main source of NO_x in urban areas. NO_x is very toxic to animals and humans because of its ability to form nitric acid with water in the eyes, lungs, mucus membrane, and skin. In animals, long-term exposure to NO_x increases susceptibility to respiratory infections, and lowering resistance to such diseases as pneumonia and influenza. Laboratory studies show that susceptible humans, such as asthmatics, who are exposed to high concentrations can suffer from lung irritation or possible lung damage. Precursors of NO_x, such as NO and NO_2, attribute to the formation of O_3 and $PM_{2.5}$. Epidemiological studies have also shown associations between NO_2 concentrations and daily mortality from respiratory and cardiovascular causes and with hospital admissions for respiratory conditions.

2.1.2.3 Ozone

O_3 is a secondary pollutant, meaning it is not directly emitted. It is formed when volatile organic compounds (VOC) also known as reactive organic gases (ROG) and NO_x undergo photochemical reactions that occur only in the presence of sunlight. The primary source of ROG emissions is unburned hydrocarbons in motor vehicle and other internal combustion engine exhaust. Sunlight and hot weather cause ground-level O_3 to form. Ground-level O_3 is the primary constituent of smog. Because O_3 formation occurs over extended periods of time, both O_3 and its precursors are transported by wind and high O_3 concentrations can occur in areas away from sources of its constituent pollutants.

People with lung disease, children, older adults, and people who are active can be affected when O_3 levels exceed ambient air quality standards. Numerous scientific studies have linked ground-level O_3 exposure to a variety of problems including lung irritation, difficult breathing, permanent lung damage to those with repeated exposure, and respiratory illnesses.

2.1.2.4 Sulfur Dioxide

SO_2 is a colorless gas with a pungent odor, however sulfur dioxide can react with other particulates in the atmosphere to for particulates that contribute to the haze effect. SO_2 standards have been developed by the U.S. Environmental Protection Agency (USEPA) to regulate all sulfur oxides, however SO_2 is by far the most abundant sulfur oxide in the atmosphere. Currently, SO_2 is primarily a result of the burning of fossil fuels for power generation and other industrial sources. Modern regulations on diesel fuel have greatly reduced the amount of SO_2 in the atmosphere and there are currently no areas in California that have levels of SO_2 that are not acceptable by state or federal standards.

2.1.2.5 Particulate Matter

Particulate matter includes both aerosols and solid particulates of a wide range of sizes and composition. Of concern are those particles smaller than or equal to 10 microns in diameter size (PM_{10}) and small than or equal to 2.5 microns in diameter ($PM_{2.5}$). Smaller particulates are of greater concern because they can penetrate deeper into the lungs than larger particles. PM_{10} is generally emitted directly as a result of mechanical processes that crush or grind larger particles or form the resuspension of dust, typically through construction activities and vehicular travel. PM_{10} generally settles out of the atmosphere rapidly and is not readily transported over large distances. $PM_{2.5}$ is directly emitted in combustion exhaust and is formed in atmospheric reactions between various gaseous pollutants, including NOx, sulfur oxides (SOx) and VOCs. $PM_{2.5}$ can remain suspended in the atmosphere for days and/or weeks and can be transported long distances.

The principal health effects of airborne PM are on the respiratory system. Short-term exposure of high $PM_{2.5}$ and PM_{10} levels are associated with premature mortality and increased hospital admissions and emergency room visits. Long-term exposure is associated with premature mortality and chronic respiratory disease. According to the USEPA, some people are much more sensitive than others to breathing PM_{10} and $PM_{2.5}$. People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worse illnesses; people with bronchitis can expect aggravated symptoms; and children may experience decline in lung function due to breathing in PM_{10} and $PM_{2.5}$. Other groups considered sensitive include smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive because many breathe through their mouths.

2.1.3 Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TAC) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis. Carcinogenic TACs can also have noncarcinogenic health hazard levels.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Additionally, diesel engines emit a complex mixture of air pollutants composed of gaseous and solid material. The solid emissions in diesel exhaust are known as diesel particulate matter (DPM). In 1998, California identified DPM as a TAC based on its potential to cause cancer, premature death, and other health problems (e.g., asthma attacks and other respiratory symptoms). Those most vulnerable are children, whose lungs are still developing, and the elderly, who may have other serious health problems. Overall, diesel engine emissions are responsible for the majority of California's known cancer risk from outdoor air pollutants. Diesel engines also contribute to California's $PM_{2.5}$ air quality problems. Public exposure to TACs can result from emissions from normal operations, as

well as from accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

2.1.4 Diesel Exhaust

Most recently, the California Air Resources Board (CARB) identified DPM as a TAC. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (i.e., heavy-duty, light-duty), engine operating conditions (i.e., idle, accelerate, decelerate), fuel formulations (i.e., high/low sulfur fuel), and the year of the manufacture of the engine (USEPA 2002). Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs; due to their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

2.1.5 Ambient Air Quality

Ambient air quality at the Project Site can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. CARB maintains more than 60 monitoring stations throughout California. The Camp Pendleton air quality monitoring station (21441 West B Street, Camp Pendleton), located approximately 9.9 miles west of the Project Area, is the closest station to the site and monitors ambient concentrations of O_3 and $PM_{2.5}$. The El Cajon (Lexington Elementary School) monitoring station, located approximately 40 miles south of the Project, monitors ambient concentrations of PM_{10}. O_3, PM_{10} and $PM_{2.5}$ are the pollutant species most potently affecting the Project region. Ambient emission concentrations will vary due to localized variations in emission sources and climate and should be considered *generally* representative of ambient concentrations in the development area. Table 2-2 summarizes the published data concerning O_3, $PM_{10,}$ and $PM_{2.5}$ since 2019 from the Camp Pendleton and El Cajon monitoring stations for each year that the monitoring data is provided.

Table 2-2. Summary of Ambient Air Quality Data			
Pollutant Scenario	**2019**	**2020**	**2021**
O_3 – Camp Pendleton			
Max 1-hour concentration (ppm)	0.075	0.094	0.074
Max 8-hour concentration (ppm) (state/federal)	0.065 / 0.064	0.074 / 0.074	0.059 / 0.059
Number of days above 1-hour standard (state/federal)	0 / 0	0 / 0	0 / 0
Number of days above 8-hour standard (state/federal)	0 / 0	3 / 3	0 / 0
PM_{10} – El Cajon			
Max 24-hour concentration (µg/m^3) (state/federal)	37.4 / 38.7	* / *	* / *
Annual Average (federal)	* / 20.1	* / *	* / *
Number of days above 24-hour standard (state/federal)	* / 0	* / *	* / *
$PM_{2.5}$ – Camp Pendleton			
Max 24-hour concentration (µg/m^3) (state/federal)	13.8 / *	61.1 / *	20.7 / *
Number of days above federal 24-hour standard	*	*	*

Source: CARB 2022a
Notes: *Insufficient data available
µg/m3 = micrograms per cubic meter; ppm = parts per million
(2) A bold value signifies that this category is above the applicable standard.

The USEPA and CARB designate air basins or portions of air basins and counties as being in *attainment* or *nonattainment* for each of the criteria pollutants. Areas that do not meet the standards are classified as nonattainment areas. Acceptable exceedances of the maximum value vary for the National Ambient Air Quality Standards (NAAQS) from fourth highest concentration for the 8-hour O_3 standard to 99th percentile to the SO_2 standard. The NAAQS for O_3, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over one- to three-year periods, depending on the pollutant. The California Ambient Air Quality Standards (CAAQS) are not to be exceeded during a three-year period. The attainment status for the San Diego County portion of the SDAB, which encompasses the Project Site, is included in Table 2-3.

Table 2-3. Attainment Status of Criteria Pollutants in the San Diego Air Basin

Pollutant	State Designation	Federal Designation
O_3	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Unclassified
$PM_{2.5}$	Nonattainment	Unclassified/Attainment
CO	Attainment	Unclassified/Attainment
NO_2	Attainment	Unclassified/Attainment
SO_2	Attainment	Unclassified/Attainment

Source: CARB 2022b

The determination of whether an area meets the state and federal standards is based on air quality monitoring data. Some areas are unclassified, which means there is insufficient monitoring data for determining attainment or nonattainment. Unclassified areas are typically treated as being in attainment. Because the attainment/nonattainment designation is pollutant-specific, an area may be classified as nonattainment for one pollutant and attainment for another. Similarly, because the state and federal standards differ, an area could be classified as attainment for the federal standards of a pollutant and as nonattainment for the state standards of the same pollutant The region is designated as a nonattainment area for the federal O_3 standard and is also a nonattainment area for the state standards for O_3, PM_{10}, and $PM_{2.5}$ (CARB 2022b).

2.1.6 Sensitive Receptors

Sensitive receptors are defined as facilities or land uses that include members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest sensitive receptor to the Project Site is a large lot residence directly to the east of the northern half of the Site. Additionally, residential development is under construction north of Shire Court.

2.2 Regulatory Framework

2.2.1 Federal

2.2.2 Clean Air Act

The Clean Air Act (CAA) of 1970 and the CAA Amendments of 1971 required the USEPA to establish the NAAQS, with states retaining the option to adopt more stringent standards or to include other specific pollutants.

These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those *sensitive receptors* most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The USEPA has classified air basins (or portions thereof) as being in attainment, nonattainment, or unclassified for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation. Table 2-3 lists the federal attainment status of the San Diego County portion of the SDAB for the criteria pollutants.

2.2.3 State

2.2.3.1 California Clean Air Act

The California Clean Air Act allows the state to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the CAAQS. CARB also conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (e.g., hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB also has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

2.2.3.2 California State Implementation Plan

The federal CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as the SIP. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The USEPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the USEPA for approval and publication in the Federal Register. The SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The County Regional Air Quality Strategy (RAQS) was initially adopted in 1991 and is updated on a triennial basis. The RAQS was

updated in 1995, 1998, 2001, 2004, 2009 and most recently in 2016. The RAQS outlines the SDAPCD's plans and control measures designed to attain the state air quality standards for O_3. The SDAPCD has also developed the SDAB's input to the SIP, which is required under the federal CAA for pollutants that are designated as being in nonattainment of federal air quality standards for the basin.

The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth, to project future emissions and then establish the strategies necessary for the reduction of emissions through regulatory controls. The RAQS and the SIP utilized the *2021 Regional Plan* prepared by the SANDAG to project future growth in the air basin. The SIP relies on the same information from SANDAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the air basin. The plan also includes rules and regulations that have been adopted by the SDAPCD to control emissions from stationary sources. Stationary source control measures are developed by the SDAPCD with the goal of setting limits on the amounts of emissions from various types of sources and/or requiring specific emissions control technologies. In order to implement control measures, a permit system is used to impose controls on new and modified stationary sources and to ensure compliance with regulations by prescribing specific operation conditions or equipment on a source.

The SDAPCD recently adopted the *2020 Plan for Attaining the National Ozone Standards*, which was voted for approval by the District Board in early October 2020. The plan was submitted to CARB for their approval, and then submittal to the USEPA as a revision to the California SIP for attaining the O_3 standards. The *2020 Plan for Attaining the National Ozone Standards* demonstrates how the region will further reduce air pollutant emissions in order to attain the current NAAQS for O_3 by specified dates. SANDAG was also involved in the preparation of the *2020 Plan for Attaining the National Ozone Standards* through the collection and review of the data necessary to generate comprehensive emission inventories, including socio-economic projections and industrial and travel activities.

2.2.3.3 Tanner Air Toxics Act & Air Toxics "Hot Spot" Information and Assessment Act

CARB's Statewide comprehensive air toxics program was established in 1983 with Assembly Bill (AB) 1807, the Toxic Air Contaminant Identification and Control Act (Tanner Air Toxics Act of 1983). AB 1807 created California's program to reduce exposure to air toxics and sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an airborne toxics control measure for sources that emit designated TACs. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions.

CARB also administers the state's mobile source emissions control program and oversees air quality programs established by state statute, such as AB 2588, the Air Toxics *Hot Spots* Information and Assessment Act of 1987. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment (HRA) and, if specific thresholds are exceeded, required to communicate the results to the public in the form of notices and public meetings. In September 1992, the *Hot Spots* Act was amended

by Senate Bill (SB) 1731, which required facilities that pose a significant health risk to the community to reduce their risk through a risk management plan.

2.2.4 Local

2.2.5 San Diego Air Pollution Control District

In addition to the RAQS, the SDAPCD has the primary responsibility for controlling emissions from construction activity throughout the SDAB. In December 2005, the SDAPCD adopted the *Measures to Reduce Particulate Matter* in the SDAB. This document identifies fugitive dust as the major source of directly emitted particulate matter in the SDAB, with mobile sources and residential wood combustion as minor contributors. Data on $PM_{2.5}$ source apportionment indicates that the main contributors to $PM_{2.5}$ in the SDAB are combustion organic carbon, and ammonium sulfate and ammonium nitrate from combustion sources. The main contributors to PM_{10} include resuspended soil and road dust from unpaved and paved roads, construction and demolition sites, and mineral extraction and processing. Based on the report's evaluation of control measures recommended by CARB to reduce particulate matter emissions, the SDAPCD adopted Rule 55, the Fugitive Dust Rule, in June 2009. The SDAPCD requires that construction activities implement the measures listed in Rule 55 to minimize fugitive dust emissions. Rule 55 requires the following:

1. No person shall engage in construction or demolition activity in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60-minute period.

2. Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall be minimized by the use of any of the equally effective track-out/carry-out and erosion control measures listed in Rule 55 that apply to the project or operation. These measures include track-out grates or gravel beds at each egress point; wheel-washing at each egress during muddy conditions; soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; watering for dust control; and using secured tarps or cargo covering, watering, or treating of transported material for outbound transport trucks. Erosion control measures must be removed at the conclusion of each workday when active operations cease, or every 24 hours for continuous operations.

There are other SDAPCD rules and regulations, not detailed here, which may apply to the Proposed Project, but are administrative or descriptive in nature. These include rules associated with fees, enforcement and penalty actions, and variance procedures. The following additional rules and regulations would apply to the construction of the Project:

- Rule 50 *Visible Emissions:* Establishes limits to the opacity of emissions within the SDAPCD.
- Rule 51 *Nuisance*: Prohibits emissions that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or which endanger the comfort, repose, health, or safety of any such persons or the public; or which cause injury or damage to business or property.
- Rule 52 *Particulate Matter*: Establishes limits to the discharge of any particulate matter from non-stationary sources.

- Rule 54 *Dust and Fumes*: Establishes limits to the amount of dust or fume discharged into the atmosphere in any single hour.
- Rule 67.0.1 *Architectural Coatings*: Requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.
- Rule 67.7 *Cutback and Emulsified Asphalts:* Prohibits the sale and use of cutback and emulsified asphalt materials for the paving, construction or maintenance of parking lots, driveways, streets, and highways which exceed the County standards for the percent by volume of VOC that evaporate into the atmosphere under temperate conditions.

2.3 Air Quality Emissions Impact Assessment

2.3.1 Threshold of Significance

The impact analysis provided below is based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to air quality if it would do any of the following:

1) Conflict with or obstruct implementation of any applicable air quality plan.

2) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

3) Expose sensitive receptors to substantial pollutant concentrations.

4) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people).

The significance criteria established by the applicable air quality management or air pollution control district (SDAPCD) may be relied upon to make the above determinations. According to the SDAPCD, an air quality impact is considered significant if the proposed Project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The SDAPCD has established thresholds of significance for air quality for construction and operational activities of land use development projects, such as that proposed, as shown in Table 2-4.

Table 2-4. SDAPCD Significance Thresholds – Pounds per Day		
Air Pollutant	**Construction Activities**	**Operations**
Reactive Organic Gas	75	75
Carbon Monoxide	550	550
Nitrogen Oxide	250	250
Sulfur Oxide	250	250
Coarse Particulate Matter	100	100
Fine Particulate Matter	67	67

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulative considerable.

2.3.2 Methodology

Air quality impacts were assessed in accordance with methodologies recommended by the SDAPCD. As previously described, proposed mitigation measures were found to reduce the effects of buildout of the entire Specific Plan to a less than significant level for all air quality–related issues, with the exception of Specific Plan consistency with the SDAB RAQS and the generation of on-site operational emissions of ROG and PM_{10} at rates that violate air quality standards. The school component analyzed in the Meadowood Specific Plan EIR included the construction of an elementary school intended to accommodate 208 students. Under the Proposed Project however, a TK – 8th grade school would be designed to accommodate up to 650 students. Therefore, for the purposes of this analysis, projected construction and operational emissions are calculated for both the previously approved school that was anticipated to accommodate 208 students, and the Proposed Project, which is anticipated to accommodate up to 650 students. Criteria air pollutant emissions for both scenarios are modeled using the most up-to-date regulatory emissions estimator model, the California Emissions Estimator Model (CalEEMod), version 2022.1. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects.

Construction-generated air pollutant emissions for both the previously approved school site and the Proposed Project were calculated using CalEEMod model defaults for San Diego County and information provided by the Project proponent, such as the need to export 27,648 cubic yards of contaminated soil material and import of the same amount of "clean" soil. Additionally, construction emissions associated with the Proposed Project are based on the timing of individual construction phases identified in Table 1-1 above. Operational air pollutant emissions specific to the Proposed Project were calculated based on specific Project Site plans and the estimated average daily vehicle trips provided by Michael Baker International (2023).

2.3.3 Impact Analysis

2.3.3.1 Project Construction-Generated Criteria Air Quality Emissions

Emissions associated with constructing the Project Site with a school would be temporary and short-term but have the potential to represent a significant air quality impact. Three basic sources of short-term emissions will be generated through construction: operation of the construction vehicles (i.e., tractors, forklifts, pavers), the creation of fugitive dust during clearing and grading, and the use of asphalt or other oil-based substances during paving activities. Construction activities such as excavation and grading operations, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive PM emissions that affect local air quality at various times during construction. Effects would be variable depending on the weather, soil conditions, the amount of activity taking place, and the nature of dust control efforts.

Construction-generated emissions associated with both the previously approved school and the Proposed Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. Attachment A provides more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Predicted maximum daily construction-generated emissions for both the previously approved school and the Proposed Project are summarized in Table 2-5. Construction-generated emissions are short-term and of temporary duration, lasting only if construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the derived thresholds of significance.

Table 2-5. Construction-Related Criteria Air Pollutant Emissions

Construction Year	Pollutant (maximum pounds per day)					
	ROG	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Proposed Project – 650 TK through 8th Grade Students						
Construction First Calendar Year	13.6	40.50	33.70	0.12	11.70	5.88
Construction Second Calendar Year	13.5	16.0	24.8	0.04	1.03	0.63
Maximum Daily	**13.6**	**40.50**	**33.70**	**0.12**	**11.70**	**5.88**
SDAPCD Potentially Significant Impact Threshold	*75*	*250*	*550*	*250*	*100*	*67*
Exceed SDAPCD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Previously Approved Project – 208 Elementary Students						
Construction First Calendar Year	3.62	59.20	40.80	0.21	15.90	7.12
Construction Second Calendar Year	11.6	9.03	13.30	0.02	0.41	0.30
Maximum Daily	**11.6**	**59.20**	**40.80**	**0.21**	**15.90**	**7.12**
SDAPCD Potentially Significant Impact Threshold	*75*	*250*	*550*	*250*	*100*	*67*
Exceed SDAPCD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2022.1 Refer to Attachment A for Model Data Outputs.
Notes: Construction emissions taken from the season (summer or winter) with the highest output. Emission calculations for both scenarios account for the movement and export of 27,648 cubic yards of local soil and import of 27,648 cubic yards of offsite material.

As shown in Table 2-5, emissions generated during construction of the previously approved school and the Proposed Project would generally be the same. As shown in Table 2-5, the Proposed Project would generate slightly more ROG compared with the previously approved school, yet slightly less NOx, CO, SO_2, PM_{10}, and $PM_{2.5}$. It is noted that a Site Plan has been prepared for the Proposed Project and detailed construction phasing has been identified. This is not the case with the previously approved school and therefore, emissions could vary in the case that more specific information was available for this scenario. Nonetheless, neither the previously approved school nor the Proposed Project would exceed any of the SDAPCD's thresholds of significance. Therefore, criteria pollutant emissions generated during either scenario would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard.

Construction of the Proposed Project would not result in a new or substantially more severe significant impact compared with the significance determination contained in the Specific Plan EIR.

2.3.3.2 Project Operations Criteria Air Quality Emissions

Implementation of either the previously approved school or the Proposed Project would result in long-term operational emissions of criteria air pollutants such as PM_{10}, $PM_{2.5}$, CO, and SO_2 as well as O_3 precursors such as ROG and NO_X. Predicted maximum daily operational-generated emissions of criteria air pollutants for both the previously approved school and the Proposed Project are summarized in Table 2-6 and compared to the operational significance thresholds promulgated by the SDAPCD. Operational emissions were estimated using CalEEMod.

Table 2-6. Operational Criteria Air Pollutant Emissions

Emission Source	Pollutant					
	ROG	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Proposed Project – 650 TK through 8th Grade Students						
Proposed Project	8.64	6.03	61.80	0.16	5.71	1.12
Previously Approved Project – 208 Elementary Students						
Previously Approved School	2.27	1.63	16.7	0.04	1.56	0.30
Difference						
Difference	**+6.37**	**+4.40**	**+45.10**	**+0.12**	**+4.15**	**+0.82**
Daily Significance Threshold	*75*	*250*	*550*	*250*	*100*	*67*
Exceed Daily Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2022.1. Refer to Attachment A for Model Data Outputs.
Notes: Operational emissions taken from the season (summer or winter) with the highest output. Proposed Project emissions projections account for trip generation rates identified by Michael Baker International (2023). Emissions projections associated with the previously approved school account for trip generation rates provided by CalEEMod defaults.

As shown in Table 2-6, the Proposed Project would generate slightly more daily emissions compared to the previously approved school. This is largely due to an increase in mobile-source emissions as a result of the increased amounts of students that would be attending the Proposed Project, as compared to the previously approved school. Nonetheless, emissions generated during the Proposed Project would not exceed any SDAPCD thresholds for any criteria air pollutants during operations.

Proposed Project operations would not result in a new or substantially more severe significant impact compared with the significance determination contained in the Specific Plan EIR.

2.3.3.3 Project Consistency with Air Quality Planning

As part of its enforcement responsibilities, the USEPA requires each state with federal nonattainment areas to prepare and submit a SIP that demonstrates the means to attain the federal air quality standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in federal nonattainment areas, using a combination of performance standards and

market-based programs. The SDAPCD currently monitors implementation of the SIP in the SDAB through the RAQS, which as previously described contains strategies and tactics to be applied in order to attain and maintain acceptable air quality in the SDAB. The RAQS is the applicable air quality plan for the Proposed Project. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date. As previously described, the SDAPCD has prepared the *2020 Plan for Attaining the National Ozone Standards*.

Consistency with the RAQS is determined by two standards: (1) whether the Project would increase the frequency or severity of violations of existing air quality standards, contribute to new violations, or delay the timely attainment of air quality standards or interim reductions as contained in the RAQS; and (2) whether the Proposed Project would exceed assumptions contained in the RAQS. The air quality emission projections and emission reduction strategies in the RAQS are based on information from CARB and SANDAG regarding mobile and area source emissions. CARB mobile source emissions projections and SANDAG growth projections are derived from population and vehicle use trends, and land use plans developed by the cities and the County of San Diego as part of their general plans. A project that proposes development consistent with the growth anticipated in a general plan would be consistent with the RAQS and *2020 Plan for Attaining the National Ozone Standards*. Projects that propose development that is greater than the population growth projections and land use intensity of the adopted local general plan warrants further analysis to determine consistency with the RAQS and the SIP.

As evaluated above, the Proposed Project would not exceed the short-term construction standards or long-term operational standards (see Tables 2-5 and 2-6) and in so doing would not violate any air quality standards. Therefore, the Project would not contribute to new violations, or delay the timely attainment of air quality standards or interim reductions as contained in the 2020 RAQS. Thus, the Project would be consistent with the first criterion.

As previously described, the Meadowood Specific Plan EIR determined that the development of the entire Meadowood Specific Plan would be inconsistent with the SDAB RAQS. Specifically, the Meadowood Specific Plan was inconsistent with the RAQS because it proposed 624 residential units more than previously planned for in the Fallbrook Community Plan. The residential densities included in the Specific Plan were determined to be not consistent with the adopted San Diego County General Plan in 2009. It is noted that since 2009, the RAQS has been updated several times, and the *2020 Plan for Attaining the National Ozone Standards* was prepared in consideration of the approved Meadowood Specific Plan. Therefore, the Proposed Project would be consistent with the second criterion.

The Project would not conflict with or obstruct implementation of the applicable air quality plan. There would not be a new or substantially more severe significant impact compared with the significance determination contained in the Specific Plan EIR.

2.3.3.4 Exposure of Sensitive Receptors to Toxic Air Contaminants

As previously described, sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and

daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over age 65, children under age 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest sensitive receptor to the Project Site is a large lot residence directly to the east of the northern half of the Site. Additionally, residential development is under construction north of Shire Court.

As previously described, the Meadowood Specific Plan EIR determined that the development of the entire Meadowood Specific Plan would be less than significant with implementation of Specific Plan EIR mitigation measure M-AQ-4, which requires all development within the Specific Plan to utilize Toxic-Best Available Control Technology (T-BACT) and ensure that 10 percent of the construction fleet uses any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters and/or CARB certified Tier I, II, or III equipment. This mitigation is binding and would be applicable to all development in the Meadowood Specific Plan area, including the Proposed Project. Construction-related activities would result in temporary, short-term Proposed Project-generated emissions of diesel particulate matter (DPM), ROG, NOx, CO, and PM_{10} from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; and other miscellaneous activities. The portion of the SDAB which encompasses the Project Area is designated as a nonattainment area for federal O_3 standard and is also a nonattainment area for the state standards for O_3, $PM_{2.5}$ and PM_{10} (2022b). Thus, existing O_3, PM_{10}, and $PM_{2.5}$ levels in the SDAB are at unhealthy levels during certain periods. However, as shown in Table 2-5, the Project would not exceed the SDAPCD significance thresholds for emissions during construction.

The health effects associated with O_3 are generally associated with reduced lung function. Because the Project would not involve construction activities that would result in O_3 precursor emissions (ROG or NOx) in excess of the SDAPCD thresholds, the Project is not anticipated to substantially contribute to regional O_3 concentrations and the associated health impacts. CO tends to be a localized impact associated with congested intersections. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions. The Project would not involve construction activities that would result in CO emissions in excess of the SDAPCD thresholds. Thus, the Project's CO emissions would not contribute to the health effects associated with this pollutant. Particulate matter (PM_{10} and $PM_{2.5}$) contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing. For construction activity, DPM is the primary TAC of concern. PM_{10} exhaust is considered a surrogate for DPM as all diesel exhaust is considered to be DPM and all PM_{10} contains $PM_{2.5}$ as a subset. As with O_3 and NOx, the Project would not generate emissions of PM_{10} or $PM_{2.5}$ that would exceed the SDAPCD's thresholds. Accordingly, the Project's PM_{10} and $PM_{2.5}$ emissions are not expected to cause any increase in related regional health effects for these pollutants.

Operation of the Proposed Project would not result in the development of any substantial sources of air toxics. There are no stationary sources associated with the operations of the Project; nor would the Project

attract additional mobile sources that spend long periods queuing and idling at the site. Onsite Project emissions would not result in significant concentrations of pollutants at nearby sensitive receptors. The Project would not have a high carcinogenic or non-carcinogenic risk during operation.

In summary, neither Project construction nor operations would result in a potentially significant contribution to regional concentrations of nonattainment pollutants. The Project would not result in a significant contribution to the adverse health impacts associated with those pollutants. There would not be a new or substantially more severe significant impact compared with the significance determination contained in the Specific Plan EIR.

2.3.3.5 Carbon Monoxide Hot Spots

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or *hot spots*, are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. However, transport of this criteria pollutant is extremely limited, and CO disperses rapidly with distance from the source under normal meteorological conditions. Furthermore, vehicle emissions standards have become increasingly stringent in the last 20 years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SDAB is designated as in attainment. Detailed modeling of Project-specific CO *hot spots* is not necessary and thus this potential impact is addressed qualitatively.

A CO *hot spot* would occur if an exceedance of the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm were to occur. The analysis prepared for CO attainment in the South Coast Air Quality Management District's (SCAQMD) *1992 Federal Attainment Plan for Carbon Monoxide* in Los Angeles County and a Modeling and Attainment Demonstration prepared by the SCAQMD as part of the 2003 Air Quality Management Plan can be used to demonstrate the potential for CO exceedances of these standards. The SCAQMD conducted a CO *hot spot* analysis as part of the 1992 CO Federal Attainment Plan at four busy intersections in Los Angeles County during the peak morning and afternoon time periods. The intersections evaluated included Long Beach Boulevard and Imperial Highway (Lynwood), Wilshire Boulevard and Veteran Avenue (Westwood), Sunset Boulevard and Highland Avenue (Hollywood), and La Cienega Boulevard and Century Boulevard (Inglewood). The busiest intersection evaluated was at Wilshire Boulevard and Veteran Avenue, which has a traffic volume of approximately 100,000 vehicles per day. Despite this level of traffic, the CO analysis concluded that there was no violation of CO standards (SCAQMD 1992). In order to establish a more accurate record of baseline CO concentrations affecting the South Coast Air Basin, a CO *hot spot* analysis was conducted in 2003 at the same four busy intersections in Los Angeles

at the peak morning and afternoon time periods. This *hot spot* analysis did not predict any violation of CO standards. The highest one-hour concentration was measured at 4.6 ppm at Wilshire Boulevard and Veteran Avenue and the highest eight-hour concentration was measured at 8.4 ppm at Long Beach Boulevard and Imperial Highway. Current CO concentrations in the South Coast Air Basin (SoCAB) are much lower than the measurements mentioned in this example and SDAB CO measurements are lower than those experienced in the SoCAB.

According to the traffic data prepared for the Project (Michael Baker International), the Project would result in approximately 1,438 automobile trips per day. Thus, the Proposed Project would not generate traffic volumes at any intersection to result in a CO exceedance at any intersection. There would not be a new or substantially more severe significant impact compared with the significance determination contained in the Specific Plan EIR.

2.3.3.6 Odors

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory, and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals can smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word *strong* to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

During construction, the Proposed Project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the site. However, these emissions are short-term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the construction area. Therefore, construction odors would not adversely affect a substantial number of people to odor emissions.

According to the CARB Air Quality and Land Use Handbook: A Community Health Perspective (CARB 2005), the sources of the most common operational odor complaints received by local air districts include facilities such as sewage treatment plants, landfills, recycling facilities, petroleum refineries, and livestock operations. The Project does not contain any of the land uses identified as typically associated with emissions of objectionable odors. There would not be a new or substantially more severe significant impact compared with the significance determination contained in the Specific Plan EIR.

3.0 GREENHOUSE GAS EMISSIONS

3.1 Greenhouse Gas Setting

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead trapped, resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Fluorinated gases include chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride; however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is *extremely likely* that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (Intergovernmental Panel on Climate Change [IPCC] 2014).

Table 3-1 describes the primary GHGs attributed to global climate change, including their physical properties, primary sources, and contributions to the greenhouse effect.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH_4 traps over 25 times more heat per molecule than CO_2, and N_2O absorbs 298 times more heat per molecule than CO_2 (IPCC 2014). Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e), which weight each gas by its global warming potential. Expressing GHG emissions in CO_2e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms. Of the total annual human-caused CO_2 emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the

last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remains stored in the atmosphere (IPCC 2013).

Table 3-1. Summary of Greenhouse Gases

Greenhouse Gas	Description
CO_2	Carbon dioxide is a colorless, odorless gas. CO_2 is emitted in a number of ways, both naturally and through human activities. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO_2 emissions. The atmospheric lifetime of CO_2 is variable because it is so readily exchanged in the atmosphere.[1]
CH_4	Methane is a colorless, odorless gas and is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of CH_4 to the atmosphere. Natural sources of CH4 include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH_4 is about 12 years.[2]
N_2O	Nitrous oxide is a clear, colorless gas with a slightly sweet odor. Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources of N_2O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N_2O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 120 years.[3]

Sources: (1) USEPA 2016a; (2) USEPA 2016b; (3) USEPA 2016c

The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; it is sufficient to say the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or microclimates. From the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.

3.1.1 Sources of Greenhouse Gas Emissions

In 2022, CARB released the 2022 edition of the California GHG inventory covering calendar year 2020 emissions. In 2020, California emitted 369.2 million gross metric tons of CO_2e including from imported electricity. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2020, accounting for approximately 38 percent of total GHG emissions in the state. Continuing the downward trend from previous years, transportation emissions decreased 27 million metric tons of CO_2e in 2020, though the intensity of this decrease was most likely from light duty vehicles after shelter-in-place orders were enacted in response to the COVID-19 pandemic. Emissions from the electricity sector account for 16 percent of the inventory and have remained at a similar level as in 2019 despite a 44 percent decrease in in-state hydropower generation (due to below average precipitation levels), which was more than compensated for by a 10 percent growth in in-state solar generation and cleaner imported

electricity incentivized by California's clean energy policies. California's industrial sector accounts for the second largest source of the state's GHG emissions in 2020, accounting for 23 percent (CARB 2022c).

3.2 Regulatory Framework

3.2.1 State

3.2.1.1 Executive Order S-3-05

Executive Order (EO) S-3-05, signed by Governor Arnold Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the EO established total GHG emission targets for the state. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

3.2.1.2 Assembly Bill 32 Climate Change Scoping Plan and Updates

In 2006, the California legislature passed Assembly Bill (AB) 32 (Health and Safety Code § 38500 et seq., or AB 32), also known as the Global Warming Solutions Act. AB 32 required CARB to design and implement feasible and cost-effective emission limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). Pursuant to AB 32, CARB adopted a Scoping Plan in December 2008, which outlined measures to meet the 2020 GHG reduction goals. California exceeded the target of reducing GHG emissions to 1990 levels by the year 2017.

The Scoping Plan is required by AB 32 to be updated at least every five years. The latest update, the 2017 Scoping Plan Update, addresses the 2030 target established by Senate Bill (SB) 32 as discussed below and establishes a proposed framework of action for California to meet a 40 percent reduction in GHG emissions by 2030 compared to 1990 levels. The key programs that the Scoping Plan Update builds on include increasing the use of renewable energy in the State, the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, and reduction of methane emissions from agricultural and other wastes.

3.2.1.3 Senate Bill 32 and Assembly Bill 197 of 2016

In August 2016, Governor Edmund "Jerry" Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include § 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030.

3.2.1.4 Senate Bill X1-2 of 2011, Senate Bill 350 of 2015, and Senate Bill 100 of 2018

In 2018, SB 100 was signed codifying a goal of 60 percent renewable procurement by 2030 and 100 percent by 2045 Renewables Portfolio Standard.

3.2.1.5 2022 Building Energy Efficiency Standards for Residential and Nonresidential Buildings

The Building and Efficiency Standards (Energy Standards) were first adopted and put into effect in 1978 and have been updated periodically in the intervening years. These standards are a unique California asset that have placed the State on the forefront of energy efficiency, sustainability, energy independence and climate change issues. The 2022 California Building Codes include provisions related to energy efficiency to reduce energy consumption and greenhouse gas emissions from buildings. Some of the key energy efficiency components of the codes are:

1. Energy Performance Requirements: The codes specify minimum energy performance standards for the building envelope, lighting, heating and cooling systems, and other components.
2. Lighting Efficiency: The codes require that lighting systems meet minimum efficiency standards, such as the use of energy-efficient light bulbs and fixtures.
3. HVAC Systems: The codes establish requirements for heating, ventilation, and air conditioning (HVAC) systems, including the use of high-efficiency equipment, duct sealing, and controls.
4. Building Envelope: The codes include provisions for insulation, air sealing, glazing, and other building envelope components to reduce energy loss and improve indoor comfort.
5. Renewable Energy: The codes encourage the use of renewable energy systems, such as photovoltaic panels and wind turbines, to reduce dependence on non-renewable energy sources.
6. Commissioning: The codes require the commissioning of building energy systems to ensure that they are installed and operate correctly and efficiently.

Overall, the energy efficiency provisions of the 2022 California Building Codes aim to reduce the energy consumption of buildings, lower energy costs for building owners and occupants, and reduce the environmental impact of the built environment. The 2022 Building Energy Efficiency Standards improve upon the 2019 Energy Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The exact amount by which the 2022 Building Codes are more efficient compared to the 2019 Building Codes would depend on the specific provisions that have been updated and the specific building being considered. However, in general, the 2022 Building Codes have been updated to include increased requirements for energy efficiency, such as higher insulation and air sealing standards, which are intended to result in more efficient buildings. The 2022 standards are a major step toward meeting Zero Net Energy.

3.2.2 Local

3.2.2.1 County of San Diego Climate Planning

In February 2018, the County's Board of Supervisors adopted a Climate Action Plan (CAP) that serves as a long-term programmatic plan that identifies strategies and measures to meet the County's targets to reduce GHG emissions by 2020 and 2030, consistent with the State's legislative GHG reduction targets, and

demonstrate progress toward the State's 2050 GHG reduction goal. In March 2018, several petitioners filed a lawsuit against the County. In December 2018, the San Diego County Superior Court issued a writ ordering the approval of the CAP and its Supplementary Environmental Impact Report (SEIR) to be set aside. Accordingly, there is no approved CAP in San Diego; and the CAP cannot be used as a threshold of significance until such time as it is reapproved in compliance with CEQA.

3.2.3 Thresholds of Significance

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to greenhouse gas emissions if it would:

1) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

2) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

The Appendix G thresholds for GHG emissions do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA. With respect to GHG emissions, the CEQA Guidelines Section 15064.4(a) states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions resulting from a project. The CEQA Guidelines note that an agency has the discretion to either quantify a project's GHG emissions or rely on a "qualitative analysis or other performance-based standards." (14 California Code of Regulations [CCR] 15064.4(b)). A lead agency may use a "model or methodology" to estimate GHG emissions and has the discretion to select the model or methodology it considers "most appropriate to enable decision makers to intelligently consider the project's incremental contribution to climate change." (14 CCR 15064.4(c)). Section 15064.4(b) provides that the lead agency should consider the following when determining the significance of impacts from GHG emissions on the environment:

1. The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.

2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

In addition, Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7(c)). The CEQA Guidelines also clarify

that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see CEQA Guidelines Section 15130). As a note, the CEQA Guidelines were amended in response to Senate Bill 97. In particular, the CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction plan renders a cumulative impact insignificant.

Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that would avoid or substantially lessen the cumulative problem within the geographic area of the project. To qualify, such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of greenhouse gas emissions." Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than significant for GHG emissions if a project complies with adopted programs, plans, policies and/or other regulatory strategies to reduce GHG emissions.

The 2009 Meadowood Specific Plan EIR analyzed GHG emissions generated by the entire Specific Plan by demonstrating more than a 33 percent reduction in GHG emissions from a business-as-usual (BAU). However, this significant threshold is currently deemed problematic based on the 2015 California Supreme Court Newhall Ranch decision, which stated that an GHG-related impact determination based on the BAU approach is "not supported by a reasoned explanation based on substantial evidence." As described above, While the County of San Diego adopted a CAP in 2018, the San Diego County Superior Court later issued a writ ordering the approval of the CAP and its SEIR to be set aside. Accordingly, there is no approved CAP in San Diego; and the CAP cannot be used as a threshold of significance until such time as it is reapproved in compliance with CEQA.

As the County of San Diego does not currently have any approved quantitative thresholds related to GHG emissions, the quantitative analysis provided herein relies upon the South Coast Air Quality Management District (SCAQMD) screening threshold for typical land use projects of 3,000 metric tons of CO_2e. The SCAQMD's jurisdiction has similar climate and land use patterns as San Diego County (i.e., dense population centers and industrial areas to the west and along the coast and rural, low population density areas to the east); and the relative mix of GHG sources in the two regions is similar. The 3,000 metric tons of CO_2e per year threshold represents a 90 percent capture rate (i.e., this threshold captures projects that represent approximately 90 percent of GHG emissions from new sources). The 3,000 metric tons of CO_2e per year value is typically used in defining small projects that are considered less than significant because it represents less than one percent of future 2050 statewide GHG emissions target and the lead agency can provide more efficient implementation of CEQA by focusing its scarce resources on the top 90 percent. Land use projects above the 3,000 metric tons of CO_2e per year level would fall within the percentage of largest projects that are worth mitigating without wasting scarce financial, governmental, physical, and social resources. Direct and cumulative impacts would be potentially significant and require further analysis if the

Proposed Project results in emissions that exceed 3,000 metric tons of CO_2e beyond current baseline emissions.

In Center for Biological Diversity v. Department of Fish and Wildlife (2015) 62 Cal. 4th 2014, 213, 221, 227, following its review of various potential GHG thresholds proposed in an academic study [Crockett, Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World (July 2011), 4 Golden Gate U. Envtl. L. J. 203], the California Supreme Court identified the use of numeric bright-line thresholds as a potential pathway for compliance with CEQA GHG requirements. The study found numeric bright line thresholds designed to determine when small projects were so small as to not cause a cumulatively considerable impact on global climate change was consistent with CEQA. Specifically, Public Resources Code section 21003(f) provides it is a policy of the state that "[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." The Supreme Court-reviewed study noted, "[s]ubjecting the smallest projects to the full panoply of CEQA requirements, even though the public benefit would be minimal, would not be consistent with implementing the statute in the most efficient, expeditious manner. Nor would it be consistent with applying lead agencies' scarce resources toward mitigating actual significant climate change impacts." (Crockett, Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World (July 2011), 4 Golden Gate U. Envtl. L. J. 203, 221, 227.)

3.3 Methodology

GHG emission impacts were assessed in accordance with methodologies recommended by the SDAPCD. As previously described, the effects of buildout of the entire Specific Plan was determined to be less than significant level for all GHG–related issues. The school component analyzed in the Meadowood Specific Plan EIR included the construction of an elementary school intended to accommodate 208 students. Under the Proposed Project however, a TK – 8th grade school would be designed to accommodate up to 650 students. Therefore, for the purposes of this analysis, projected construction and operational GHG emissions are calculated for both the previously approved school that was anticipated to accommodate 208 students, and the Proposed Project, which is anticipated to accommodate up to 650 students. GHG emissions for both scenarios are modeled using the most up-to-date regulatory emissions estimator model, CalEEMod version 2022.1. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects.

Construction-generated GHG emissions for both the previously approved school site and the Proposed Project were calculated using CalEEMod model defaults for San Diego County and information provided by the Project proponent, such as the need to export 27,648 cubic yards of contaminated soil material and import of the same amount of “clean” soil. Additionally, construction GHG emissions associated with the Proposed Project are based on the timing of individual construction phases identified in Table 1-1 above. Operational GHG emissions specific to the Proposed Project were calculated based on specific Project Site plans and the estimated average daily vehicle trips provided by Michael Baker International (2023).

3.3.1 Impact Analysis

3.3.1.1 Project Greenhous Gas Emissions

Construction

Construction-related activities associated with either the previously approved school or the Proposed Project that would generate GHG emissions include on- and off-road equipment traffic. Table 3-2 illustrates the specific construction generated GHG emissions that would result from construction of the Project. Once construction is complete, the generation of these GHG emissions would cease.

Table 3-2. Construction Related Greenhouse Gas Emissions

Description	CO_2e Emissions (Metric Tons/Year)
Proposed Project – 650 TK through 8th Grade Students	
Construction First Calendar Year	568
Construction Second Calendar Year	211
Total Proposed Project Construction Emissions	**779**
Previously Approved Project – 208 Elementary Students	
Construction First Calendar Year	551
Construction Second Calendar Year	154
Total Previously Approved School Construction Emissions	**705**

Sources: CalEEMod version 2022.1. Refer to Attachment A for Model Data Outputs.
Notes: Construction emissions taken from the season (summer or winter) with the highest output. Emission calculations for both scenarios account for the movement and export of 27,648 cubic yards of local soil and import of 27,648 cubic yards of offsite material.

As shown in Table 3-2, GHG emissions generated during construction of the previously approved school and the Proposed Project would generally be the same. As shown in Table 3-2, the Proposed Project would generate slightly more CO_2e compared with the previously approved school. It is noted that a Site Plan has been prepared for the Proposed Project and detailed construction phasing has been identified. This is not the case with the previously approved school and therefore, emissions could vary in the case that more specific information was available for this scenario. Once construction is complete, the generation of these GHG emissions would cease.

Project construction GHG emissions have been amortized over the expected life of the Project, which is considered to be 30 years. The amortized construction emissions are added to the annual average operational emissions (see Table 3-3).

Operations

Operation of the Project would result in GHG emissions predominantly associated with motor vehicle use. Long-term operational GHG emissions attributable to the Project are identified in Table 3-3.

Table 3-3. Operational-Related Greenhouse Gas Emissions

Description	CO_2e Emissions (Metric Tons/Year)
Proposed Project – 650 TK through 8th Grade Students	
Proposed Project	1,977
Previously Approved Project – 208 Elementary Students	
Previously Approved School	556
Difference	
Difference	**+1,421**
Annual Significance Threshold	*3,000*
Exceed Annual Threshold?	**No**

Sources: CalEEMod 2021.1. Refer to Attachment A for Model Data Outputs.
Notes: Project GHG emissions projections account for trip generation rates identified by Michael Baker International (2023). Emissions projections associated with the previously approved school account for trip generation rates provided by CalEEMod defaults. Project construction GHG emissions have been amortized over the expected life of the Project (30 years) and added to the annual operational emissions.

As shown in Table 3-3, the Proposed Project would generate approximately 1,421 more metric tons of GHG emissions compared to the previously approved school. This is largely due to an increase in mobile-source emissions as a result of the increased amounts of students that would be attending the Proposed Project, as compared to the previously approved school. Nonetheless, emissions generated during the Proposed Project would not exceed the significance threshold during operations. This significance threshold was developed based on substantial evidence that such thresholds represent quantitative levels of GHG emissions, compliance with which means that the environmental impact of the GHG emissions will normally not be cumulatively considerable under CEQA. The 3,000 metric tons of CO_2e per year value represents less than one percent of future 2050 statewide GHG emissions target.

Proposed Project operations would not result in a new or substantially more severe significant impact compared with the significance determination contained in the Specific Plan EIR.

Conflict with any Applicable Plan, Policy, or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases

As indicated above, Proposed Project emissions would not exceed the 3,000 metric tons of CO_2e annually threshold, and therefore it would not interfere with the state's goals of reducing GHG emission to 40 percent below 1990 levels by the year 2030 as stated in Scoping Plan and an 80 percent reduction in GHG emissions below 1990 levels by 2050 as stated in Executive Order S-3-05. Therefore, the Proposed Project would not

conflict with any applicable plan, policy or regulation related to the reduction in the emissions of GHG and thus a less than significant impact will occur directly, indirectly and cumulatively in this regard.

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LIST OF ATTACHMENTS

Attachment A - CalEEMod Output Files – Criteria Air Pollutants & Greenhouse Gas Emissions

ATTACHMENT A

CalEEMod Output Files – Criteria Air Pollutants & Greenhouse Gas Emissions

Bonsall USD Citro School - Proposed Project Detailed Report

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5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Bonsall USD Citro School - Proposed Project
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	1.80
Location	33.34416468321945, -117.14989497033122
County	San Diego
City	Unincorporated
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6120
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Elementary School	650	Student	1.70	75,500	0.00	0.00	—	—
Parking Lot	108	Space	0.97	0.00	0.00	—	—	—
Other Non-Asphalt Surfaces	9.00	Acre	8.70	0.00	189,486	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	3.33	40.1	33.7	0.12	11.7	5.88	16,777
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	13.6	40.5	33.6	0.11	11.7	5.88	15,427
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	1.67	9.44	10.4	0.03	1.61	0.79	3,430
Annual (Max)	—	—	—	—	—	—	—
Unmit.	0.30	1.72	1.90	< 0.005	0.29	0.14	568
Exceeds (Daily Max)	—	—	—	—	—	—	—
Threshold	75.0	250	550	250	100	67.0	—
Unmit.	No	No	No	No	No	No	Yes
Exceeds (Average Daily)	—	—	—	—	—	—	—
Threshold	75.0	250	550	250	100	67.0	—
Unmit.	No	No	No	No	No	No	Yes

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—
2027	3.33	40.1	33.7	0.12	11.7	5.88	16,777
2028	1.98	16.0	24.8	0.04	1.03	0.63	4,650
Daily - Winter (Max)	—	—	—	—	—	—	—
2027	13.6	40.5	33.6	0.11	11.7	5.88	15,427
2028	13.5	10.2	15.5	0.03	0.72	0.39	3,169
Average Daily	—	—	—	—	—	—	—
2027	1.67	9.44	10.4	0.03	1.61	0.79	3,430
2028	1.02	4.09	6.21	0.01	0.28	0.16	1,273
Annual	—	—	—	—	—	—	—
2027	0.30	1.72	1.90	< 0.005	0.29	0.14	568
2028	0.19	0.75	1.13	< 0.005	0.05	0.03	211

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	8.46	5.55	61.8	0.16	5.71	1.12	16,845
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	7.82	6.03	53.6	0.15	5.70	1.11	16,084
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	6.32	4.37	40.2	0.11	4.08	0.80	11,782
Annual (Max)	—	—	—	—	—	—	—
Unmit.	1.15	0.80	7.34	0.02	0.75	0.15	1,951
Exceeds (Daily Max)	—	—	—	—	—	—	—
Threshold	75.0	250	550	250	100	68.0	—
Unmit.	No	No	No	No	No	No	Yes

Exceeds (Average Daily)	—	—	—	—	—	—	—
Threshold	75.0	250	550	250	100	68.0	—
Unmit.	No	No	No	No	No	No	Yes
Exceeds (Annual)	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	3,000
Unmit.	—	—	—	—	—	—	No

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Mobile	6.13	5.21	58.3	0.16	5.68	1.09	16,139
Area	2.32	0.03	3.28	< 0.005	< 0.005	0.01	13.6
Energy	0.02	0.32	0.27	< 0.005	0.02	0.02	453
Water	—	—	—	—	—	—	16.3
Waste	—	—	—	—	—	—	224
Refrig.	—	—	—	—	—	—	0.29
Total	8.46	5.55	61.8	0.16	5.71	1.12	16,845
Daily, Winter (Max)	—	—	—	—	—	—	—
Mobile	6.03	5.71	53.3	0.15	5.68	1.09	15,391
Area	1.78	—	—	—	—	—	—
Energy	0.02	0.32	0.27	< 0.005	0.02	0.02	453
Water	—	—	—	—	—	—	16.3
Waste	—	—	—	—	—	—	224
Refrig.	—	—	—	—	—	—	0.29
Total	7.82	6.03	53.6	0.15	5.70	1.11	16,084

Average Daily	—	—	—	—	—	—	—
Mobile	4.26	4.03	38.3	0.11	4.06	0.78	11,082
Area	2.04	0.01	1.62	< 0.005	< 0.005	< 0.005	6.68
Energy	0.02	0.32	0.27	< 0.005	0.02	0.02	453
Water	—	—	—	—	—	—	16.3
Waste	—	—	—	—	—	—	224
Refrig.	—	—	—	—	—	—	0.29
Total	6.32	4.37	40.2	0.11	4.08	0.80	11,782
Annual	—	—	—	—	—	—	—
Mobile	0.78	0.74	7.00	0.02	0.74	0.14	1,835
Area	0.37	< 0.005	0.30	< 0.005	< 0.005	< 0.005	1.11
Energy	< 0.005	0.06	0.05	< 0.005	< 0.005	< 0.005	74.9
Water	—	—	—	—	—	—	2.69
Waste	—	—	—	—	—	—	37.0
Refrig.	—	—	—	—	—	—	0.05
Total	1.15	0.80	7.34	0.02	0.75	0.15	1,951

3. Construction Emissions Details

3.1. Site Preparation (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	3.05	28.0	28.3	0.05	1.17	1.08	5,316
Dust From Material Movement	—	—	—	—	7.68	3.94	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	3.05	28.0	28.3	0.05	1.17	1.08	5,316
Dust From Material Movement	—	—	—	—	7.68	3.94	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.21	1.92	1.94	< 0.005	0.08	0.07	364
Dust From Material Movement	—	—	—	—	0.53	0.27	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.35	0.35	< 0.005	0.01	0.01	60.3
Dust From Material Movement	—	—	—	—	0.10	0.05	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.06	0.04	0.72	0.00	0.15	0.03	162
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.22	12.1	4.69	0.06	2.75	0.82	9,971
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.06	0.05	0.63	0.00	0.15	0.03	153
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.20	12.5	4.74	0.06	2.75	0.82	9,958
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.01	< 0.005	10.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.86	0.32	< 0.005	0.19	0.06	682

Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	1.75
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.16	0.06	< 0.005	0.03	0.01	113

3.3. Grading (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	2.95	25.6	27.3	0.06	1.04	0.96	6,621
Dust From Material Movement	—	—	—	—	3.60	1.43	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.20	1.75	1.87	< 0.005	0.07	0.07	453
Dust From Material Movement	—	—	—	—	0.25	0.10	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.32	0.34	< 0.005	0.01	0.01	75.1
Dust From Material Movement	—	—	—	—	0.05	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.07	0.05	0.82	0.00	0.17	0.04	186

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.22	12.1	4.69	0.06	2.75	0.82	9,971
Daily, Winter (Max)	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.01	< 0.005	12.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.86	0.32	< 0.005	0.19	0.06	682
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	2.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.16	0.06	< 0.005	0.03	0.01	113

3.5. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	0.31	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	0.31	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.42	3.80	5.24	0.01	0.14	0.13	974
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.69	0.96	< 0.005	0.02	0.02	161

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.11	0.08	1.30	0.00	0.27	0.06	294
Vendor	0.01	0.38	0.18	< 0.005	0.08	0.03	311
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.11	0.10	1.14	0.00	0.27	0.06	277
Vendor	0.01	0.39	0.18	< 0.005	0.08	0.03	310
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.04	0.04	0.47	0.00	0.11	0.03	113
Vendor	< 0.005	0.16	0.07	< 0.005	0.03	0.01	126
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.01	0.01	0.09	0.00	0.02	< 0.005	18.8
Vendor	< 0.005	0.03	0.01	< 0.005	0.01	< 0.005	20.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.99	8.92	12.9	0.02	0.30	0.28	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—

Off-Road Equipment	0.99	8.92	12.9	0.02	0.30	0.28	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.39	3.53	5.11	0.01	0.12	0.11	951
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.64	0.93	< 0.005	0.02	0.02	157
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.11	0.08	1.23	0.00	0.27	0.06	289
Vendor	0.01	0.36	0.17	< 0.005	0.08	0.03	303
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.11	0.09	1.08	0.00	0.27	0.06	272
Vendor	0.01	0.37	0.17	< 0.005	0.08	0.03	303
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.04	0.03	0.43	0.00	0.11	0.02	109
Vendor	< 0.005	0.15	0.07	< 0.005	0.03	0.01	120
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.02	< 0.005	18.0
Vendor	< 0.005	0.03	0.01	< 0.005	0.01	< 0.005	19.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.69	6.63	9.91	0.01	0.26	0.24	1,516
Paving	0.13	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.34	0.52	< 0.005	0.01	0.01	78.9
Paving	0.01	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	0.09	< 0.005	< 0.005	< 0.005	13.1
Paving	< 0.005	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.05	0.04	0.58	0.00	0.13	0.03	137
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.01	< 0.005	6.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.12

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.83	1.13	< 0.005	0.02	0.02	134
Architectural Coatings	12.3	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	0.07	< 0.005	< 0.005	< 0.005	8.13
Architectural Coatings	0.75	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	1.35
Architectural Coatings	0.14	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.02	0.02	0.23	0.00	0.05	0.01	55.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	3.40
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.81	1.12	< 0.005	0.02	0.01	134
Architectural Coatings	12.3	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.05	< 0.005	< 0.005	< 0.005	5.77
Architectural Coatings	0.53	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	0.95
Architectural Coatings	0.10	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.02	0.02	0.22	0.00	0.05	0.01	54.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	2.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Elementary School	6.13	5.21	58.3	0.16	5.68	1.09	16,139
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	6.13	5.21	58.3	0.16	5.68	1.09	16,139
Daily, Winter (Max)	—	—	—	—	—	—	—
Elementary School	6.03	5.71	53.3	0.15	5.68	1.09	15,391

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	6.03	5.71	53.3	0.15	5.68	1.09	15,391
Annual	—	—	—	—	—	—	—
Elementary School	0.78	0.74	7.00	0.02	0.74	0.14	1,835
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.78	0.74	7.00	0.02	0.74	0.14	1,835

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	65.7
Parking Lot	—	—	—	—	—	—	4.79
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	70.5
Daily, Winter (Max)	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	65.7
Parking Lot	—	—	—	—	—	—	4.79
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	70.5
Annual	—	—	—	—	—	—	—

Elementary School	—	—	—	—	—	—	10.9
Parking Lot	—	—	—	—	—	—	0.79
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	11.7

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Elementary School	0.02	0.32	0.27	< 0.005	0.02	0.02	382
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.32	0.27	< 0.005	0.02	0.02	382
Daily, Winter (Max)	—	—	—	—	—	—	—
Elementary School	0.02	0.32	0.27	< 0.005	0.02	0.02	382
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.32	0.27	< 0.005	0.02	0.02	382
Annual	—	—	—	—	—	—	—
Elementary School	< 0.005	0.06	0.05	< 0.005	< 0.005	< 0.005	63.3
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	< 0.005	0.06	0.05	< 0.005	< 0.005	< 0.005	63.3

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Consumer Products	1.65	—	—	—	—	—	—
Architectural Coatings	0.13	—	—	—	—	—	—
Landscape Equipment	0.54	0.03	3.28	< 0.005	< 0.005	0.01	13.6
Total	2.32	0.03	3.28	< 0.005	< 0.005	0.01	13.6
Daily, Winter (Max)	—	—	—	—	—	—	—
Consumer Products	1.65	—	—	—	—	—	—
Architectural Coatings	0.13	—	—	—	—	—	—
Total	1.78	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Consumer Products	0.30	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—
Landscape Equipment	0.05	< 0.005	0.30	< 0.005	< 0.005	< 0.005	1.11
Total	0.37	< 0.005	0.30	< 0.005	< 0.005	< 0.005	1.11

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	14.3

Parking Lot	—	—	—	—	—	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	1.94
Total	—	—	—	—	—	—	16.3
Daily, Winter (Max)	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	14.3
Parking Lot	—	—	—	—	—	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	1.94
Total	—	—	—	—	—	—	16.3
Annual	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	2.37
Parking Lot	—	—	—	—	—	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.32
Total	—	—	—	—	—	—	2.69

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	224
Parking Lot	—	—	—	—	—	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	224
Daily, Winter (Max)	—	—	—	—	—	—	—

Elementary School	—	—	—	—	—	—	224
Parking Lot	—	—	—	—	—	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	224
Annual	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	37.0
Parking Lot	—	—	—	—	—	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	37.0

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	0.29
Total	—	—	—	—	—	—	0.29
Daily, Winter (Max)	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	0.29
Total	—	—	—	—	—	—	0.29
Annual	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	0.05
Total	—	—	—	—	—	—	0.05

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	3/1/2027	4/2/2027	5.00	25.0	—
Grading	Grading	4/3/2027	5/7/2027	5.00	25.0	—
Building Construction	Building Construction	6/8/2027	7/20/2028	5.00	293	—
Paving	Paving	4/11/2028	5/5/2028	5.00	19.0	—
Architectural Coating	Architectural Coating	12/1/2027	1/22/2028	5.00	38.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29

Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.63	HHDT,MHDT
Site Preparation	Hauling	138	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	—	7.63	HHDT,MHDT
Grading	Hauling	138	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	31.7	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	12.4	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT

Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	—	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	6.34	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	113,250	37,750	25,279

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	27,648	37.5	0.00	—
Grading	27,648	—	75.0	0.00	—
Paving	0.00	0.00	0.00	0.00	9.67

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Elementary School	0.00	0%
Parking Lot	0.97	100%
Other Non-Asphalt Surfaces	8.70	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	45.1	0.03	< 0.005
2028	0.00	45.1	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Elementary School	1,438	0.00	0.00	374,906	20,206	0.00	0.00	5,268,017
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	113,250	37,750	25,279

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Elementary School	509,318	45.1	0.0330	0.0040	1,189,072

Parking Lot	37,090	45.1	0.0330	0.0040	0.00
Other Non-Asphalt Surfaces	0.00	45.1	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Elementary School	1,575,756	0.00
Parking Lot	0.00	0.00
Other Non-Asphalt Surfaces	0.00	2,831,710

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Elementary School	119	0.00
Parking Lot	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	16.7	annual days of extreme heat
Extreme Precipitation	4.35	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	40.6	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	64.9
AQ-PM	14.3
AQ-DPM	28.8
Drinking Water	15.1
Lead Risk Housing	45.5
Pesticides	78.9
Toxic Releases	8.71
Traffic	88.5
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	47.4
Haz Waste Facilities/Generators	43.3
Impaired Water Bodies	66.7
Solid Waste	80.0

Sensitive Population	—
Asthma	19.4
Cardio-vascular	51.1
Low Birth Weights	13.0
Socioeconomic Factor Indicators	—
Education	66.1
Housing	6.10
Linguistic	17.3
Poverty	46.8
Unemployment	7.77

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	70.11420506
Employed	12.83202874
Median HI	64.39112024
Education	—
Bachelor's or higher	39.70229693
High school enrollment	100
Preschool enrollment	22.58437059
Transportation	—
Auto Access	71.35891184
Active commuting	72.96291544
Social	—
2-parent households	59.81008597

Voting	76.32490697
Neighborhood	—
Alcohol availability	85.07635057
Park access	20.90337482
Retail density	7.622225074
Supermarket access	2.399589375
Tree canopy	72.93725138
Housing	—
Homeownership	71.07660721
Housing habitability	57.38483254
Low-inc homeowner severe housing cost burden	20.80071859
Low-inc renter severe housing cost burden	36.68677018
Uncrowded housing	60.77248813
Health Outcomes	—
Insured adults	44.20633902
Arthritis	0.0
Asthma ER Admissions	74.3
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	66.8
Cognitively Disabled	19.2
Physically Disabled	41.1
Heart Attack ER Admissions	68.3

Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	81.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	68.3
SLR Inundation Area	0.0
Children	95.4
Elderly	13.7
English Speaking	57.7
Foreign-born	43.5
Outdoor Workers	6.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	78.4
Traffic Access	23.0
Other Indices	—
Hardship	32.9
Other Decision Support	—
2016 Voting	78.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	28.0
Healthy Places Index Score for Project Location (b)	52.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Project consists of 75,500 sf of buildings (1.7 acres), 108 parking spaces, and 8.7 acres of hardscape and landscaping.
Construction: Construction Phases	Construction phases per Project proponent.
Operations: Vehicle Data	Project Trip Generation Per Michael Baker International.

Bosnell USD Citro School - Previously Approved Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Bosnell USD Citro School - Previously Approved
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	1.80
Location	33.34424833434288, -117.1506245312126
County	San Diego
City	Unincorporated
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6120
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Elementary School	208	Student	0.40	17,390	0.00	0.00	—	—
Parking Lot	35.0	Space	0.31	0.00	0.00	—	—	—
Other Non-Asphalt Surfaces	11.0	Acre	10.7	0.00	230,868	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	11.6	35.7	32.0	0.11	7.10	3.11	15,115
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	3.62	59.2	40.8	0.21	15.9	7.12	30,363
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	0.97	9.27	10.3	0.03	1.22	0.61	3,326
Annual (Max)	—	—	—	—	—	—	—
Unmit.	0.18	1.69	1.87	< 0.005	0.22	0.11	551

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—
2027	3.20	35.7	32.0	0.11	7.10	3.11	15,115
2028	11.6	9.02	13.3	0.02	0.41	0.30	2,542
Daily - Winter (Max)	—	—	—	—	—	—	—
2027	3.62	59.2	40.8	0.21	15.9	7.12	30,363
2028	1.02	9.03	13.2	0.02	0.38	0.30	2,538
Average Daily	—	—	—	—	—	—	—

2027	0.88	9.27	10.3	0.03	1.22	0.61	3,326
2028	0.97	3.38	4.98	0.01	0.15	0.11	933
Annual	—	—	—	—	—	—	—
2027	0.16	1.69	1.87	< 0.005	0.22	0.11	551
2028	0.18	0.62	0.91	< 0.005	0.03	0.02	154

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	2.27	1.50	16.7	0.04	1.56	0.30	4,598
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	2.12	1.63	14.6	0.04	1.56	0.30	4,391
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	1.70	1.18	10.9	0.03	1.12	0.22	3,215
Annual (Max)	—	—	—	—	—	—	—
Unmit.	0.31	0.22	1.99	0.01	0.20	0.04	532
Exceeds (Annual)	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	3,000
Unmit.	—	—	—	—	—	—	No

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Mobile	1.68	1.42	15.9	0.04	1.55	0.30	4,412
Area	0.59	0.01	0.76	< 0.005	< 0.005	< 0.005	3.12

Energy	< 0.005	0.07	0.06	< 0.005	0.01	0.01	105
Water	—	—	—	—	—	—	6.95
Waste	—	—	—	—	—	—	71.6
Refrig.	—	—	—	—	—	—	0.07
Total	2.27	1.50	16.7	0.04	1.56	0.30	4,598
Daily, Winter (Max)	—	—	—	—	—	—	—
Mobile	1.65	1.56	14.6	0.04	1.55	0.30	4,208
Area	0.47	—	—	—	—	—	—
Energy	< 0.005	0.07	0.06	< 0.005	0.01	0.01	105
Water	—	—	—	—	—	—	6.95
Waste	—	—	—	—	—	—	71.6
Refrig.	—	—	—	—	—	—	0.07
Total	2.12	1.63	14.6	0.04	1.56	0.30	4,391
Average Daily	—	—	—	—	—	—	—
Mobile	1.16	1.10	10.5	0.03	1.11	0.21	3,030
Area	0.53	< 0.005	0.37	< 0.005	< 0.005	< 0.005	1.54
Energy	< 0.005	0.07	0.06	< 0.005	0.01	0.01	105
Water	—	—	—	—	—	—	6.95
Waste	—	—	—	—	—	—	71.6
Refrig.	—	—	—	—	—	—	0.07
Total	1.70	1.18	10.9	0.03	1.12	0.22	3,215
Annual	—	—	—	—	—	—	—
Mobile	0.21	0.20	1.91	0.01	0.20	0.04	502
Area	0.10	< 0.005	0.07	< 0.005	< 0.005	< 0.005	0.25
Energy	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	17.3
Water	—	—	—	—	—	—	1.15
Waste	—	—	—	—	—	—	11.9

Refrig.	—	—	—	—	—	—	0.01
Total	0.31	0.22	1.99	0.01	0.20	0.04	532

3. Construction Emissions Details

3.1. Site Preparation (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	3.05	28.0	28.3	0.05	1.17	1.08	5,316
Dust From Material Movement	—	—	—	—	7.70	3.95	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.77	0.77	< 0.005	0.03	0.03	146
Dust From Material Movement	—	—	—	—	0.21	0.11	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.14	0.14	< 0.005	0.01	0.01	24.1
Dust From Material Movement	—	—	—	—	0.04	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—

Worker	0.06	0.05	0.63	0.00	0.15	0.03	153
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.51	31.2	11.8	0.16	6.86	2.06	24,894
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	4.23
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.86	0.32	< 0.005	0.19	0.06	682
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.70
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.16	0.06	< 0.005	0.03	0.01	113

3.3. Grading (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	2.95	25.6	27.3	0.06	1.04	0.96	6,621
Dust From Material Movement	—	—	—	—	3.60	1.43	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	2.95	25.6	27.3	0.06	1.04	0.96	6,621
Dust From Material Movement	—	—	—	—	3.60	1.43	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.24	2.10	2.24	0.01	0.09	0.08	544

Dust From Material Movement	—	—	—	—	0.30	0.12	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.38	0.41	< 0.005	0.02	0.01	90.1
Dust From Material Movement	—	—	—	—	0.05	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.07	0.05	0.82	0.00	0.17	0.04	186
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.18	10.1	3.91	0.05	2.29	0.69	8,309
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.07	0.06	0.72	0.00	0.17	0.04	175
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.17	10.4	3.95	0.05	2.29	0.69	8,298
Average Daily	—	—	—	—	—	—	—
Worker	0.01	0.01	0.06	0.00	0.01	< 0.005	14.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.86	0.32	< 0.005	0.19	0.06	682
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	2.40
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.16	0.06	< 0.005	0.03	0.01	113

3.5. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	0.31	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	0.31	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.51	4.63	6.38	0.01	0.17	0.15	1,186
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.85	1.16	< 0.005	0.03	0.03	196
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.03	0.02	0.30	0.00	0.06	0.01	67.8
Vendor	< 0.005	0.09	0.04	< 0.005	0.02	0.01	71.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.03	0.02	0.26	0.00	0.06	0.01	63.9
Vendor	< 0.005	0.09	0.04	< 0.005	0.02	0.01	71.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.01	0.01	0.13	0.00	0.03	0.01	31.8
Vendor	< 0.005	0.04	0.02	< 0.005	0.01	< 0.005	35.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.01	< 0.005	5.27
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	5.84
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.99	8.92	12.9	0.02	0.30	0.28	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.99	8.92	12.9	0.02	0.30	0.28	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.33	2.93	4.25	0.01	0.10	0.09	791
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.54	0.78	< 0.005	0.02	0.02	131
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.02	0.02	0.28	0.00	0.06	0.01	66.5
Vendor	< 0.005	0.08	0.04	< 0.005	0.02	0.01	69.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—

Worker	0.02	0.02	0.25	0.00	0.06	0.01	62.7
Vendor	< 0.005	0.09	0.04	< 0.005	0.02	0.01	69.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.02	< 0.005	20.8
Vendor	< 0.005	0.03	0.01	< 0.005	0.01	< 0.005	23.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	3.45
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	3.80
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.69	6.63	9.91	0.01	0.26	0.24	1,516
Paving	0.04	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.36	0.54	< 0.005	0.01	0.01	83.1
Paving	< 0.005	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.10	< 0.005	< 0.005	< 0.005	13.8

Paving	< 0.005	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.05	0.04	0.58	0.00	0.13	0.03	137
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.01	< 0.005	7.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	1.18
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.81	1.12	< 0.005	0.02	0.01	134
Architectural Coatings	10.7	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.04	0.06	< 0.005	< 0.005	< 0.005	7.34
Architectural Coatings	0.59	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	1.22
Architectural Coatings	0.11	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.06	0.00	0.01	< 0.005	13.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Elementary School	1.68	1.42	15.9	0.04	1.55	0.30	4,412
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.68	1.42	15.9	0.04	1.55	0.30	4,412
Daily, Winter (Max)	—	—	—	—	—	—	—
Elementary School	1.65	1.56	14.6	0.04	1.55	0.30	4,208
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.65	1.56	14.6	0.04	1.55	0.30	4,208
Annual	—	—	—	—	—	—	—
Elementary School	0.21	0.20	1.91	0.01	0.20	0.04	502
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.21	0.20	1.91	0.01	0.20	0.04	502

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	15.1
Parking Lot	—	—	—	—	—	—	1.55

Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	16.7
Daily, Winter (Max)	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	15.1
Parking Lot	—	—	—	—	—	—	1.55
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	16.7
Annual	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	2.51
Parking Lot	—	—	—	—	—	—	0.26
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	2.76

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Elementary School	< 0.005	0.07	0.06	< 0.005	0.01	0.01	88.0
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	< 0.005	0.07	0.06	< 0.005	0.01	0.01	88.0
Daily, Winter (Max)	—	—	—	—	—	—	—
Elementary School	< 0.005	0.07	0.06	< 0.005	0.01	0.01	88.0
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	< 0.005	0.07	0.06	< 0.005	0.01	0.01	88.0
Annual	—	—	—	—	—	—	—
Elementary School	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	14.6
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	14.6

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Consumer Products	0.41	—	—	—	—	—	—
Architectural Coatings	0.06	—	—	—	—	—	—
Landscape Equipment	0.12	0.01	0.76	< 0.005	< 0.005	< 0.005	3.12
Total	0.59	0.01	0.76	< 0.005	< 0.005	< 0.005	3.12
Daily, Winter (Max)	—	—	—	—	—	—	—
Consumer Products	0.41	—	—	—	—	—	—
Architectural Coatings	0.06	—	—	—	—	—	—
Total	0.47	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Consumer Products	0.07	—	—	—	—	—	—
Architectural Coatings	0.01	—	—	—	—	—	—
Landscape Equipment	0.01	< 0.005	0.07	< 0.005	< 0.005	< 0.005	0.25

Total	0.10	< 0.005	0.07	< 0.005	< 0.005	< 0.005	0.25

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	4.59
Parking Lot	—	—	—	—	—	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	2.36
Total	—	—	—	—	—	—	6.95
Daily, Winter (Max)	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	4.59
Parking Lot	—	—	—	—	—	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	2.36
Total	—	—	—	—	—	—	6.95
Annual	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	0.76
Parking Lot	—	—	—	—	—	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.39
Total	—	—	—	—	—	—	1.15

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	71.6
Parking Lot	—	—	—	—	—	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	71.6
Daily, Winter (Max)	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	71.6
Parking Lot	—	—	—	—	—	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	71.6
Annual	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	11.9
Parking Lot	—	—	—	—	—	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	11.9

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—

Elementary School	—	—	—	—	—	—	0.07
Total	—	—	—	—	—	—	0.07
Daily, Winter (Max)	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	0.07
Total	—	—	—	—	—	—	0.07
Annual	—	—	—	—	—	—	—
Elementary School	—	—	—	—	—	—	0.01
Total	—	—	—	—	—	—	0.01

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	3/1/2027	3/12/2027	5.00	10.0	—
Grading	Grading	3/13/2027	4/23/2027	5.00	30.0	—
Building Construction	Building Construction	4/24/2027	6/16/2028	5.00	300	—
Paving	Paving	6/17/2028	7/14/2028	5.00	20.0	—
Architectural Coating	Architectural Coating	7/14/2028	8/10/2028	5.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.63	HHDT,MHDT

Site Preparation	Hauling	346	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	—	7.63	HHDT,MHDT
Grading	Hauling	115	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	7.30	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	2.85	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	—	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	1.46	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction

Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	26,085	8,695	28,737

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	27,648	15.0	0.00	—
Grading	27,648	—	90.0	0.00	—
Paving	0.00	0.00	0.00	0.00	11.0

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Elementary School	0.00	0%
Parking Lot	0.31	100%
Other Non-Asphalt Surfaces	10.7	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	45.1	0.03	< 0.005
2028	0.00	45.1	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Elementary School	393	0.00	0.00	102,492	5,524	0.00	0.00	1,440,174
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	26,085	8,695	28,737

5.10.3. Landscape Equipment

Season	Unit	Value

Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Elementary School	117,312	45.1	0.0330	0.0040	273,880
Parking Lot	12,020	45.1	0.0330	0.0040	0.00
Other Non-Asphalt Surfaces	0.00	45.1	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Elementary School	504,242	0.00
Parking Lot	0.00	0.00
Other Non-Asphalt Surfaces	0.00	3,450,129

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Elementary School	38.0	0.00
Parking Lot	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	16.7	annual days of extreme heat
Extreme Precipitation	4.35	annual days with precipitation above 20 mm

Sea Level Rise	0.00	meters of inundation depth
Wildfire	40.6	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score

Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	64.9
AQ-PM	14.3
AQ-DPM	28.8
Drinking Water	15.1
Lead Risk Housing	45.5
Pesticides	78.9
Toxic Releases	8.71

Traffic	88.5
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	47.4
Haz Waste Facilities/Generators	43.3
Impaired Water Bodies	66.7
Solid Waste	80.0
Sensitive Population	—
Asthma	19.4
Cardio-vascular	51.1
Low Birth Weights	13.0
Socioeconomic Factor Indicators	—
Education	66.1
Housing	6.10
Linguistic	17.3
Poverty	46.8
Unemployment	7.77

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	70.11420506
Employed	12.83202874
Median HI	64.39112024
Education	—
Bachelor's or higher	39.70229693

High school enrollment	100
Preschool enrollment	22.58437059
Transportation	—
Auto Access	71.35891184
Active commuting	72.96291544
Social	—
2-parent households	59.81008597
Voting	76.32490697
Neighborhood	—
Alcohol availability	85.07635057
Park access	20.90337482
Retail density	7.622225074
Supermarket access	2.399589375
Tree canopy	72.93725138
Housing	—
Homeownership	71.07660721
Housing habitability	57.38483254
Low-inc homeowner severe housing cost burden	20.80071859
Low-inc renter severe housing cost burden	36.68677018
Uncrowded housing	60.77248813
Health Outcomes	—
Insured adults	44.20633902
Arthritis	0.0
Asthma ER Admissions	74.3
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0

Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	66.8
Cognitively Disabled	19.2
Physically Disabled	41.1
Heart Attack ER Admissions	68.3
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	81.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	68.3
SLR Inundation Area	0.0
Children	95.4
Elderly	13.7
English Speaking	57.7
Foreign-born	43.5
Outdoor Workers	6.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5

Traffic Density	78.4
Traffic Access	23.0
Other Indices	—
Hardship	32.9
Other Decision Support	—
2016 Voting	78.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	28.0
Healthy Places Index Score for Project Location (b)	52.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification

Land Use	208 Student elementary school = 17,390 sf of building space. Parking spaces, hardscape and landscaping based proportionately to "Proposed Project" Site Plan.
Construction: Construction Phases	No Demolition Phase

Michael Baker
INTERNATIONAL

Appendix G: Phase I ESA

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CONVERSE CONSULTANTS

Phase I Environmental Site Assessment Report

5326 Highway 76
Fallbrook, California

Converse Project No. **21-42-135-0**
July 19, 2022

Prepared For:

Bonsall Unified School District
31505 Old River Road
Bonsall, California 92003

Prepared By:

Converse Consultants
3176 Pullman Street, Suite 108
Costa Mesa, California 92626

Converse Consultants
Geotechnical Engineering, Environmental and Groundwater Science, Inspection and Testing Services

July 19, 2022

Mr. Joseph Clevenger
Superintendent
Prepared for Bonsall Unified School District
31505 Old River Road
Bonsall, CA 92003

Subject: PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT
5326 Highway 76
Fallbrook, California
Converse Project No.
21-42-135-01

Mr. Clevenger,

Converse Consultants (Converse) is pleased to submit the attached report that summarizes the activities and the results of a Phase I Environmental Site Assessment (Phase I ESA) that was conducted at the referenced property.

A summary of the assessment is presented in the Executive Summary, as well as in Sections 8.0, 9.0, and 10.0 of the report. No Recognized Environmental Conditions were identified during this assessment.

We appreciate the opportunity to be of service. Should you have any questions or comments regarding this report, please contact Laura Tanaka at (626) 930-1261 or Norman Eke at (626) 930-1260.

CONVERSE CONSULTANTS

Michael A. Van Fleet
Senior Geologist



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Executive Summary

The following is an Executive Summary of the Phase I Environmental Site Assessment (Phase I ESA) that was conducted by Converse Consultants (Converse). Please refer to the appropriate sections of the report for a complete discussion of these issues. In the event of a conflict between this Executive Summary and the report, or an omission in the Executive Summary, the report shall prevail.

This report presents the results of the Converse Phase I ESA performed at 5326 Highway 76, San Diego County, California, referred to as the Subject Property in this report. Converse was retained and authorized by Michael Baker International to conduct this Phase I Environmental Site Assessment. Our study has been conducted in order to identify, to the extent practical within the scope of an ESA, Recognized Environmental Conditions (RECs) in connection with the Subject Property.

Converse has compiled and reviewed information that was obtained from interviews, document research, and on-site and area reconnaissance to identify potential environmental conditions at the Property in conformance with the ASTM Standard E: 1527-13/-21 Environmental Site Assessment Standard Practice (ASTM Standard: E1527-13/-21). This Phase I ESA was conducted during the period of April 13, 2022 to July 8, 2022.

Report Section		NFA	REC	CREC	HREC	OEC	Recommended Action/Comments
3.0	**User Provided Information & Responsibilities**	X					
5.2.5	**Summary of Historical Property Use**	X					
5.2.6	**Summary of Past Uses of Adjoining Properties**	X					
5.2.7	**Summary of Past Uses of the Surrounding Area**	X					
5.3.1	**Property Listings**	X					
5.3.2	**Adjoining Properties**	X					
5.3.3	**Other Off-site Locations of Concern**	X					
5.4	**Additional Environmental Record Sources**	X					
6.3	**Interior Observations of Property**	X					
6.4	**Exterior Observations of Property**	X					

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Report Section		NFA	REC	CREC	HREC	OEC	Recommended Action/Comments
6.5	**Current Uses of Adjoining Properties**	X					
6.6	**Current Uses of Surrounding Area**	X					
7.0	**Interviews**	X					

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1.0 Introduction

1.1 Purpose and Scope of Services

This report presents the results of the Converse Consultants (Converse) Phase I Environmental Site Assessment (ESA) performed at 5326 Highway 76 in the unincorporated area of Fallbrook, San Diego County, California, referred to as the Subject Property in this report. Converse was retained by Michael Baker International to conduct this Phase I ESA. Our study has been conducted in order to identify, to the extent practical, Recognized Environmental Conditions (RECs) in connection with the Subject Property. The term Recognized Environmental Conditions is defined in Section 1.1.1 of the American Society of Testing and Materials (ASTM) Standard Practice as the presence or likely presence of any hazardous substances or petroleum products in, at or on a property due to any release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment.

This Phase I ESA was completed in accordance with our proposal dated April 13, 2022. Our work consisted of the following and was completed in general conformance with the scope and limitations of the ASTM Practice E1527-13/-21 and complies with standards and practices set forth in 40 Code of Federal Regulations (CFR) Part 312 for AAI.

- Interviews with the Property owner representatives
- Property and vicinity reconnaissance
- Review of regulatory agency records
- Description of physical setting
- Historical review
- Interviews with public agency personnel
- Preparation of this report

1.2 Non-Scope Considerations

There are a number of non-scope issues which are sometimes assessed concurrently with a Phase I ESA. Unless specifically agreed in the contract proposal documents, these non-scope considerations are not included as part of the Phase I ESA. Examples of non-scope issues include:

- Asbestos-containing building material
- Biological Agent
- Cultural & Historic Resources
- Diffuse Anthropogenic Pollution
- Ecological Resources
- Endangered Species
- Health & Safety
- Indoor Air Quality
- Industrial Hygiene
- Lead-based Paint
- Lead in Drinking Water
- Mold
- Non-liquid Polychlorinated Biphenyls
- Radon
- Regulatory Compliance
- Wetlands

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1.3 Significant Assumptions

No assumptions were made for this assessment that need to be noted as significant.

1.4 Limitations and Expectations

The following limitations and exceptions were encountered during the course of this assessment:

- Converse was only able to view the stormwater retention basin in the southern corner of the Subject Property through a chain link fence surrounding the basin.

This is not deemed a significant limitation.

1.5 Special Terms and Conditions

No special terms or conditions were identified by the User.

1.6 Reliance

This report is for the sole benefit and exclusive use of Michael Baker International in accordance with the terms and conditions under which these services have been provided. Its preparation has been in accordance with generally accepted environmental practices. No other warranty, either express or implied, is made. The Scope of Services associated with the report was designed solely in accordance with the objectives, schedule, budget, and risk-management preferences of Michael Baker International.

This report should not be regarded as a guarantee that no further contamination, beyond that which could be detected within the scope of this assessment, is present at the Subject Property. Converse makes no warranties or guarantees as to the accuracy or completeness of information provided or compiled by others. It is possible that information exists beyond the scope of this assessment. It is not possible to absolutely confirm that no hazardous materials and/or substances exist at the Subject Property. If none are identified as part of a limited scope of work, such a conclusion should not be construed as a guaranteed absence of such materials, but merely the results of the evaluation of the property at the time of the assessment. Also, events may occur after the Property visit, which may result in contamination of the Property. Additional information, which was not found or available to Converse at the time of report preparation, may result in a modification of the conclusions and recommendations presented.

Any reliance on this report by Third Parties shall be at the Third Party's sole risk. Should Michael Baker International wish to identify any additional relying parties not previously identified, a completed Application of Authorization to Use (see Appendix A of this report) must be submitted to Converse Consultants.

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2.0 Property Description

Item	Comment
Current Use(s) of the Subject Property	The Subject Property is owned by Tri Pointe Homes. The Subject Property consists of two lots: Lot 54 and Lot C. Lot 54 consists of vacant/graded land used as a construction storage site for neighboring residential development, and Lot C is occupied by a retention basin. A Subject Property location map and a field generated Subject Property plan are provided in Appendix B. Pertinent Subject Property photographs are provided in Appendix C.
Location and Legal Description	The Subject Property is located at 5326 Highway 76 in the City of Fallbrook, California 92028. The Subject Property is located on the east side of Horse Ranch Creek Road. The Subject Property is located approximately 1-mile northeast of the intersection of Interstate-15 and Highway-76. The Subject Property consists of two lots: Lot 54 (11.20 acres) and Lot C (1.46 acres).
Zoning Information	According to the County of San Diego, Planning Department, the zoning for the Subject Property is RV10, which is defined as Residential Variable.
Subject Property Characteristics	The Subject Property is an irregularly-shaped parcel that consists of two lots: Lot 54 and Lot C. Lot 54 is situated on the northern portion of the Subject Property and is a proposed school site for the Bonsall Unified School District. Within the enclosed area, a concrete lined drainage channel runs along the western property line that ends in a water retention pond on the southern end. Located towards the center, were construction modules and containers used as storage for the building materials of the residential developments north of the Subject Property. A water retention basin is situated on the southern portion of the Subject Property (Lot C). The basin is enclosed

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Item	Comment
	with a metal fence that was unable to be accessed during the reconnaissance.
Description of Property Structure(s)	There were no structures on the Subject Property at the time of the reconnaissance.

The following services were present at the Property at the time of the assessment.

Item	Comments
Electricity:	No services were observed on the Subject Property during the assessment.
Gas:	No services were observed on the Subject Property during the assessment.
Potable Water:	No services were observed on the Subject Property during the assessment.
Sanitary Sewer:	No services were observed on the Subject Property during the assessment.
Heating, Ventilation, Air Conditioning (HVAC):	No services were observed on the Subject Property during the assessment.
Solid Waste:	No services were observed on the Subject Property during the assessment.

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3.0 User Provided Information & Responsibilities

3.1 Requested Documents and Information

The ASTM E1527-13/-21 specifies that the User, Michael Baker International, provide any helpful documents that may be available as listed below.

- Environmental site assessment or environmental compliance audit reports
- Environmental permits or hazardous waste generator notices/reports
- Registrations for aboveground and underground storage tanks
- Septic systems, oil wells, or water wells
- Registrations for underground injection systems
- Safety Data Sheets; Community Right to Know Plans; Safety, Preparedness and Prevention Plans; or Spill Protection Countermeasures and Control Plans
- Reports regarding hydrologic conditions on the Property or surrounding area
- Notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the Property or relating to environmental liens encumbering the Property.
- Hazardous waste generator notices or reports
- Geotechnical studies
- Risk assessments
- Recorded Activity Use Limitations (AULs)
- Proceedings regarding hazardous substances and petroleum products including any pending, threatened or past: litigation; administrative proceedings; or notices from any governmental entity regarding possible violations of environmental laws or other possible liability related to hazardous substances or petroleum products.

The following information/documentation was provided by Michael Baker International

Converse was provided with several reports pertaining to the larger Pankey Ranch site. For the purposes of this Phase I ESA, a summary of those documents that include information pertaining to the Subject Property are summarized as follows:

Converse Consultants, Preliminary Environmental Assessment Investigation Report, Proposed School Site, Meadowood Development, Fallbrook, California, January 25, 2017

According to the report, the proposed school site (Site) is comprised of approximately 12.7 acres and is a part of the larger Meadowood Development (Property) in the Fallbrook Planning Area of San Diego County. The majority of the proposed school Site was formerly used for row crops with a portion at the northern end used as an orchard.

In 2002 and 2007 Converse completed Phase I and Limited Phase II ESAs for the Meadowood Development, of which this Site is a portion. During these previous assessments Converse identified four (4) potential areas of concern associated with the proposed School Site and proposed borrow area.

Specific objectives of the PEA included:

- Determining if a release of hazardous wastes/substances/materials has occurred at a site and delineating the general extent of the contamination.
- Estimating the potential threat to public health and/or the environment posed by the site and providing an indicator of the relative risk.
- Determining if an interim action is required to reduce an existing or potential threat to public health or the environment.
- Completing preliminary project scoping activities to identify data gaps and possible remedial action strategies that would form the basis for development of a site strategy.

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- Providing the data and information to DTSC.
- Assessing and providing for the informational needs of the community.

The following areas of concern were identified based on the proposed use of the Site and the historical review.

Former Agricultural Use. The use of the property to grow row crops and the presence of an orchard at the northwest corner of the Site resulted in the potential application of pesticides.

Proposed Fill Material — Material from the adjacent site to the north, a proposed park site, and material from the southern end of the proposed school site will be utilized as fill material at the proposed school site. The proposed borrow areas are to be evaluated per the DTSC Information Advisory for Clean Imported Fill Materials (Fill Advisory).In addition, the potential presence of organic carbon in the fill material could result in the generation of biogenic methane. Pardee has indicated that the top1-foot of soil will initially be removed from the proposed school site and the proposed park site and disposed of offsite.

Granite Construction Storage Yard — A storage yard used by Granite Construction (Granite Yard) is located at the northern end of the Site. Stained soil was observed within the storage yard. The area also includes vehicle storage and fueling.

Lead-based Paint in Soil and Termiticides. — A single family residence and out buildings are located near the northwest corner of the Site. Historical records indicate that the structures associated with the residential property on the Site were constructed between the early 1970's and mid-1980s. Therefore, the structures might contain asbestos and lead-based paint (LBP), and the soils surrounding these structures might be impacted with OCPs from termiticides or lead from LBP.

Assessment activities included the following:

The field sampling investigation for this Site consisted of soil matrix sampling. Groundwater was not identified as a medium of concern based on the lack of a direct exposure pathway. Groundwater was not encountered during this investigation at depths up to 15 feet bgs. Therefore, groundwater was not sampled during this investigation.

Soil vapor was not identified as a current medium of concern. Potential sources of a release of hazardous substances to the atmosphere are limited to fugitive dust from surface soils. Therefore, soil vapor was not sampled during the investigation. However, the potential for proposed fill materials to generate methane gas, which could impact the soil vapor, was evaluated.

Agricultural sampling - A total of 191 soil samples, 180 primary and 11 duplicates, were collected from 30 locations for analysis for agricultural chemicals. The 34 samples (30 primary and 4 duplicates) collected from the 1.5-foot depth were composited by the laboratory in to nine (9) composite samples, eight (8) primary and one (1) duplicate, for analysis. The nine (9) composite samples were analyzed for OCPs in accordance with EPA method 8081, TPHcc in accordance with EPA method 8015, and total organic carbon in accordance with EPA method 9060. Nine (9) discrete samples, one (1) from each composite group, were analyzed for arsenic in accordance with EPA method 6010.Four (4) composite samples from the proposed cut area of the Site were analyzed for PAHs in accordance with EPA method 8310. In addition, one discrete sample from the proposed borrow area (A23 at 1.5 feet bgs) was analyzed for PCBs in accordance with EPA method 8082. One (1) OCP was reported in the two (2) composite samples analyzed, AC-4 and AC-6. DDE was reported at concentrations of 1.38 and 13 micrograms per kilogram (µg/kg). This is less than the screening level for residential soil of 2 mg/kg (2,000 µg/kg). Arsenic was reported in one (1) of the samples analyzed (A17 at 1.5 feet bgs) at a concentration of 2.71 mg/kg. This is less than the screening level of 12 mg/kg. TPH, PAHs, and PCBs were non-detect in each of the samples analyzed.

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Import Fill Material - Twenty-seven (27) samples, 24 primary and 3 duplicates, collected from the 4-foot, 8-foot and 12-foot depths were analyzed for total organic carbon. Eighteen (18) samples,16 primary and 2 duplicates, collected from the 4-foot and 8-foot depths were analyzed for Title 22 metals. A total of 36 soil samples were analyzed for TOC. Nine (9) composite samples from the agricultural sampling and 27 discrete samples from the fill samples. Total organic carbon was reported in one (1) of the discrete samples (F7 at 12-feet) at a concentration of 710 mg/kg (0.071%), and in four (4) of the composite samples from 1.5feet bgs at a maximum concentration of 2,700 mg/kg (0.27%). Reported concentrations ranged from 540 mg/kg to 2,700 mg/kg (0.054% to 0.27%). All reported TOC concentrations are less than the screening level of 0.5%. Eight (8) metals (arsenic, barium, chromium, cobalt, copper, nickel, vanadium and zinc)were reported in the samples analyzed. Concentrations of metals reported were significantly less than their respective residential screening levels.

Granite Construction Storage Yard - Fourteen soil matrix samples (12 primary and 2 duplicates) collected from the 2 and 4-foot depths were analyzed for TPHcc, VOCs and metals. Screening levels based on the Tier 1 ESLs published by the San Francisco Bay Regional Water Quality Control Board were used to evaluate TPH. The Tier 1screening level of 100 mg/kg was used to evaluate TPH in the gasoline (C4-C12) and oil(C23 to C40) ranges, and 240 mg/kg for TPH in the diesel (C13-C22) range. TPH in the gasoline and diesel ranges was reported as non-detect in the 14 samples analyzed. TPH in the oil range was reported in one (1) sample, S5 at 2-feet, at a concentration of 52.2 mg/kg. This is less than the screening level of 100 mg/kg. VOCs were reported as non-detect in all the samples analyzed. Eight (8) metals (arsenic, barium, chromium, cobalt, copper, nickel, vanadium and zinc)were reported in the samples analyzed in the Granite Yard area. Concentrations of metals reported were significantly less than their respective residential screening levels.

Lead-based Paint and Termiticides - A total of 64 soil samples, 60 primary and four (4) duplicates, were collected from 10 locations (L1 through L10) around the residential structure and outbuildings located at the northwest corner of the proposed school site. Samples were collected from depths of 1.5, 2, 2.5, 3, 3.5 and 4-feet bgs.

Fourteen (14) samples, 10 primary and four (4) duplicates from the 1.5-foot depth were analyzed for lead in accordance with EPA method 6010.

Lead was evaluated relative to the DTSC HHRA Note 3 residential screening level of 80 mg/kg. Lead was reported as non-detect in all samples analyzed.

The samples from the 1.5-foot depth were composited by the laboratory into four (4) composite samples, three (3) primary and one (1) duplicate. Samples were analyzed for OCPs in accordance with EPA method 8081. OCPs were evaluated using residential screening levels presented in Table 1 of the DTSC HHRA Note 3 and the EPA RSLs.

One (1) OCP, Chlordane, was reported in two (2) samples (LC-1 and the duplicateDLC-1) at concentrations of 1.32 and 2.59 µg/kg. These are less than the residential screening level of 440 µg/kg.

Converse concluded that based on the findings of the PEA investigation, the objectives were met. The following is a summary of the findings for the soil matrix samples collected as part of this investigation.

- No VOCs, PCBs, PAHs, or TPH in the gasoline and diesel ranges were reported in the soil samples analyzed during this investigation.
- Total Petroleum Hydrocarbons in the oil range (C23-C40) was reported in one soil sample at a concentration of 52.2 mg/kg, which is less than the screening level of 100 mg/kg.
- Arsenic was reported in 15 of 41 soil samples analyzed during this investigation at a maximum concentration of 3.82 mg/kg, which is less than the screening level of 12 mg/kg.

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- Lead was reported as non-detect in all 43 soil samples analyzed.
- Eight metals, arsenic, barium, chromium, cobalt, copper, nickel, vanadium and zinc, were reported at concentrations well below their residential screening levels.
- Two OCPs, DDE and chlordane, were reported in 4 of the 13 composite soil samples analyzed at maximum concentrations of 13 and 2.59 µg/kg respectively. These concentrations are less than their respective screening levels of 2,000 and 440 µg/kg.
- Total organic carbon was reported in 5 of the 36 soil samples analyzed at a maximum concentration of 2,700 mg/kg (0.27%), which is less than the DTSC recommended threshold of 0.5% in potential fill soils.

The results of the human health screening evaluation conducted utilizing a conservative, hypothetical residential use scenario indicated that chemicals detected at the Site will not pose a health risk to future school occupants:

- The total estimated cancer risk for the Site based on the maximum concentrations is 3.6×10^{-8}. This is less than the target goal of 1.0×10^{-6}.
- The Hazard index for the Site is 0.696. This is less than the target of 1.

Converse provided the following recommendations:

The upper 1-foot of soil at the proposed school site should be removed and disposed of offsite prior to fill activities.

Evaluation of the soil in the proposed borrow areas indicate that the soils tested are acceptable for use as fill material at the proposed school site, provided the upper 1-footof soil is first removed and disposed of offsite.

Based upon the results of this and previous investigations and the planned removal of the upper 1-foot of soil, no further action is recommended. No further testing should be required following the conclusion of grading activities.

Department of Toxic Substances Control (DTSC), Approval of Preliminary Environmental Assessment Report, Proposed Meadowood Elementary School Site, Located North of Highway 76 and East of Interstate 15, Fallbrook, San Diego County (Site Code: 404894), February 24, 2017.

The letter was prepared in response to the Converse PEA report. DTSC concurred with the "no further action" recommendation and approved the PEA.

3.2 User Provided Information

Section 6 of ASTM E1527-13/-21 outlines specific User's responsibilities. This information will help identify the possibility of RECs in connection with the Subject Property. The ASTM Standard provides a questionnaire to help the User to comply with the statutory requirements to perform tasks which would help identify RECs. In general, any Users should make Converse aware of information they have regarding the following:

- Environmental Cleanup Liens filed or recorded against the Subject Property
- Activity and land use limitations that are in place on the Subject Property or have been filed or recorded in a registry.
- Specialized knowledge or experience of the person seeking to qualify for the Legal Liability Protections (LLP)
- Relationship of the purchase price to fair market value of the Subject Property if it were not contaminated

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- Commonly known or reasonably ascertainable information about the Subject Property
- The degree or obviousness of the presence or likely presence of contamination at the Subject Property, and the ability to detect this contamination by appropriate investigation.

The following information was requested from the User, Michael Baker International.

3.2.1 Environmental Cleanup Liens

The User provided no information regarding environmental cleanup liens or title records.

3.2.2 Activity and Use Limitations

The User did not have any information indicating they were aware of any AULs.

3.2.3 Specialized Knowledge or Experience

The User did not provide any information indicating they had specialized knowledge or experience related to the Subject Property or nearby property.

3.2.4 Reason for Significantly Lower Purchase Price

Converse has no information regarding the purchase price of the Subject Property or comparable properties. The User has not indicated to Converse that there is any conclusion that there was a lower purchase price because of known or suspected contamination at the Subject Property.

3.2.5 Commonly Known or Reasonably Ascertainable Information

The User did not have any information about past uses, specific chemicals at the Subject Property, past spills, environmental cleanup or other reasonably ascertainable information regarding the Subject Property.

3.2.6 Obviousness of Contamination

The User did not have any information based on their knowledge or experience that would be obvious indicators of contamination on the Subject Property.

Unless specifically stated otherwise in the Scope of Services, the purpose of this Phase I ESA was to qualify for the landowner liability protections to CERCLA Liability as described in ASTM E1527-13/-21.

Business risk unrelated to the CERCLA innocent landowners defense are only assessed as specifically agreed in the Scope of Services and discussed in Section 11.0, Additional Non-Scope Services, of this report.

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3.3 Continuing Obligations

In order to assert a LLP, the User must satisfy a number of statutory requirements that are generally referred to as Continuing Obligations, which are outside the Scope of Services of the Phase I ESA. Examples of Continuing Obligations include providing legally required notices, stopping continuing releases and complying with land use restrictions. Failure to comply with these and other statutory post-acquisition requirements will jeopardize liability protection.

It is the responsibility of the User to comply with the Continuing Obligations requirements of ASTM E1527-13/-21 and AAI. Anyone seeking LLP protections should take independent action beyond this Phase I ESA to perfect their position.

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4.0 Owner Provided Information

The ASTM E1527-13/-21 specifies that the Subject Property owner and the Key Site Manager provide any helpful documents that may be available as listed below.

- Environmental site assessment or environmental compliance audit reports
- Environmental permits or hazardous waste generator notices/reports
- Registrations for aboveground and underground storage tanks
- Septic systems, oil wells, or water wells
- Registrations for underground injection systems
- Safety Data Sheets; Community Right to Know Plans; Safety, Preparedness and Prevention Plans; or Spill Protection Countermeasures and Control Plans
- Reports regarding hydrologic conditions on the Subject Property or surrounding area
- Notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the Subject Property or relating to environmental liens encumbering the Subject Property.
- Hazardous waste generator notices or reports
- Geotechnical studies
- Risk assessments
- Recorded AULs
- Proceedings regarding hazardous substances and petroleum products including any pending, threatened or past: litigation; administrative proceedings; or notices from any governmental entity regarding possible violations of environmental laws or other possible liability related to hazardous substances or petroleum products.

Mr. Allen Kashani provided the following reports and documents, which are summarized as follows:

- Geocon Incorporated, Letter Correspondence, Grading Performed In PA-2 (School Site), Citro, San Diego County, California, June 3, 2022. The letter was prepared for Ms. April Tornillo of Tri Pointe Homes (Formerly Pardee). The letter provided information pertaining to grading operations related to the proposed school site, and borrow area sites, and stated that "grading within PA-2 (School Site) at the Citro project was performed in accordance with DTSC's requirements". Geocon stated that the upper 1-foot of soil from across PA-2 was removed and taken offsite for fill use in a canyon fill in PA-4. According to the letter, fill material brought from borrow area PA-3 to the proposed school site PA-2 was taken from cuts at least 1-foot below original site grades.

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5.0 Records Review

5.1 Physical Setting

Item	Comments
Physical Setting:	The Subject Property is located approximately 305-feet above mean sea level with surface topography sloping towards the southwest (United States Geological Survey [USGS] Topographic Map, Bonsall, California, 2018).
Geology:	The Subject Property is underlain by alluvium, lake, playa, and terrace deposits (Division of Mines and Geology, Geologic Map of California, 2015).
Groundwater:	According to the prior Phase I Environmental Site Assessment conducted by Converse in 2007 for the Subject Property, groundwater was reported to be approximately 50-feet below ground surface (bgs). The direction of groundwater flow was reported to be towards the south. The Subject Property is located in the San Luis Rey Valley basin.
Potable Water Supply:	Potable water is supplied by the Rainbow Municipal Water District (RMWD). According to the district's 2021 Annual Water Quality Report, drinking water is purchased through the San Diego County Water Authority (SDCWA), which in turn, receives most of its's water from the Metropolitan Water District. The vast majority of RMWD water comes from the Skinner Treatment plant operated by the MWD in Riverside County.

5.2 Historical Review

5.2.1 Aerial Photograph and Map Review

Available historical aerial photographs and maps, which were provided by Environmental Data Resources (EDR), were reviewed. A summary of the review is provided in the following table. Copies of the aerial photographs and maps are provided in Appendix D.

Sanborn Fire Insurance Maps were requested from EDR. According to EDR, there is no Sanborn map coverage of the Subject Property.

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Historical Summary			
Resource and Year	**Property**	**Adjoining Properties**	**General Vicinity**
1901 Topographic Map	The Subject Property appears to be undeveloped land.	The adjoining properties appear to be undeveloped land.	The general vicinity consists of undeveloped land and sporadic structures.
1939 and 1946 Aerial Photographs 1947 Topographic Map	The Subject Property appears to be dryland farming.	The east adjacent property appears to be undeveloped land. The north, south, and west adjacent properties appear to be used for agricultural purposes.	The general vicinity consists of agricultural land and residential dwellings.
1948 and 1949 Topographic Maps	No structures are indicated on the Subject Property.	No structures are indicated on the adjacent properties. A perennial lake/pond is indicated on the south adjacent property.	The general vicinity is indicated as primarily undeveloped land with sporadic structures. Pala Road is indicated south of the Subject Property.
1953 and 1964 Aerial Photographs	The Subject Property appears to be dryland farming.	The east adjacent property appears to be undeveloped land. The north, south, and east adjacent properties appear to be used for agricultural purposes.	The general vicinity appears to consist of residential dwellings, undeveloped and agricultural land. There appear to be orchards to the north and west of the Subject Property.
1967 Aerial Photograph 1968 Topographic Map 1970 Aerial Photograph	There are no discernable changes to the Subject Property.	There appears to be a residential building on the northern portion of the east adjacent property, the remaining portion appears to be	The general vicinity appears to contain residential dwellings, commercial structures, orchards, agricultural and undeveloped land.

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Resource and Year	Property	Adjoining Properties	General Vicinity
1975 Topographic Map		undeveloped land. The north, south, and west adjacent properties appear to be used for agricultural purposes.	
1985, 1989, 1994, 1996, 2002, 2005, 2009, 2012 Aerial Photographs 2012, 2015 Topographic Maps 2016 Aerial Photograph 2018 Topographic Map	There appears to be a residential dwelling on the northwest corner of the Subject Property, as well as orchards. The remainder of the Subject Property appears to be dryland farming. By 1989, the northern portion of the Subject Property appears to contain multiple structures.	The north adjacent property appears to be orchards. The northernmost portion of the east property appears to contain agricultural structures, the remainder is undeveloped land. The south and west adjacent properties appear to be used for agricultural purposes. By 1989, the east adjacent property appears to be used for agricultural purposes.	The general vicinity consists of residential dwellings, commercial structures, undeveloped and agricultural land.

5.2.2 Building Permit Review

Available building permits were reviewed at the San Diego County's Planning and Development Service Department.

Records were not available for the addresses 5338 and 5328 Highway 76, Fallbrook. However, records were reviewed for 5326 Highway 76 and a chronological summary is provided below.

2016

October: Grading permit for temporary fire access road.

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2019

February: Demolition of single family dwelling at the cross street of Horse Creek Road.

2021

December: Grading permit - Lowering of Lots 149-221, 225-228, and 304-306 to achieve overall mass earthwork balance. Lot line adjustments associated w/ the grading revisions Pushed limit of disturbance to the east adjacent to Lots 149-177. Redesign of all associated storm drain facilities to accommodate the lower grades. TM 5354-1 (Meadowood)

5.2.3 City Directories

A city directory search was completed on the Subject Property by EDR. The complete city directory is provided in Appendix E, Historical Research.

The Subject Property and adjacent properties were identified as residential uses in city directories published as early as 2000 until 2017.

5.2.4 Data Failure

Historical information regarding the Subject Property indicated the Subject Property was undeveloped land as early as 1901. Therefore, no historical data failure occurred during this assessment.

5.2.5 Summary of Historical Property Use

The Subject Property was undeveloped land as early as 1901. By 1939, the Subject Property appeared to be used for dryland farming until at least 2016. A residential dwelling appeared to be in the northwest corner of the Subject Property in 1985 that remained until 2016, when a demolition permit for the removal of a single family dwelling was approved.

5.2.6 Summary of Past Uses of Adjoining Properties

The adjacent properties were undeveloped land as early as 1901. The east adjacent property remained undeveloped land until a residential dwelling was developed on the northern portion of the property in 1967, with the remaining property undeveloped land until at least 1985. By 1989, the east adjacent property was used for agricultural purposes.

The north adjacent property appeared to be used for dryland farming from as early as 1939 until 1970. By 1985, the north adjacent property appeared to be used for orchards until at least 2016.

The south and west adjacent properties appeared to be used for agricultural purposes from as early as 1939 until at least 2016.

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5.2.7 Summary of Past Uses of the Surrounding Area

The general vicinity consisted of undeveloped land and sporadic structures as early as 1901, with agricultural uses indicated by 1939.

5.3 Results of Environmental Records Sources Review

An EDR report of Standard Environmental Record Sources (Records) was prepared specifically for the Property. The search included queries to the following databases for cases within specified ASTM search distances. A copy of the database report is provided in Appendix E.

5.3.1 Property Listings

The Subject Property was identified on the following databases in the EDR report:

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigations and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further.

SCH: Contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination.

National Pollutant Discharge Elimination System (NPDES): Permit program that addresses water pollution by regulating point sources that discharge pollutants to waters of the United States.

The California Integrated Water Quality System (CIWQS): Computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

California Environmental Reporting System (CERS): The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials.

Property Listings	
Site Name:	MEADOWOOD PA2-OPTION
Databases:	CERS
Address:	NO ADDRESS - PROPERTY UNDER DEVELOPMENT
Comments:	The CERS description is listed as "school site". No other information is available for this listing.

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Site Name:	PROPOSED MEADOWOOD DEVELOPMENT
Databases:	CERS
Address:	5326 PALA ROAD
Comments:	The CERS description is listed as "cleanup program up". No other information is available for this listing.

Site Name:	HORSE CREEK RIDGE TRACT 5338 PHASE 1
Databases:	NPDES, CERS, CIWQS
Address:	HORSE CREEK RANCH RD NORTH OF RTE 76
Comments:	Four (4) violations found for the site: effluent - sediment discharge to SR-76; deficient BMP implementation - sediment track out to SR-76; deficient BMP implementation - ongoing deficient BMPs; and deficient BMP implementation - lack of BMPs erosion and sediment controls in advance of rain event. All violations were from 2017.

Site Name:	MEADOWOOD PA2-OPTIONAL SCHOOL SITE
Databases:	ENVIROSTOR, SCH
Address:	NO ADDRESS - PROPERTY UNDER DEVELOPMENT
Comments:	No confirmed contaminants of concern were found on the site. The DTSC issued a "no further action letter" as of February 2017.

5.3.2 Adjoining Properties

The adjoining properties were not identified on the databases in the EDR report.

5.3.3 Other Off-site Locations of Concern

Other off-site locations of concern identified by EDR within a maximum one-mile radius from the Subject Property included ENVIROSTOR, SAN DIEGO CO SAM; CPS-SLIC; SCH; CERS HAZ WASTE; US MINES; NPDES; CIWQS; and CERS.

The potential for environmental concern to the Subject Property from these off-site locations appears to be low due to one or more of the following: type of regulatory listing; type of resource (soil) affected, location with respect to the direction of regional groundwater, distance from the Subject Property; status of the case; remedial efforts being directed by a regulatory agency; and/or potential responsible parties have been identified.

5.3.4 Orphan Listings

The EDR database report identified five (5) orphan listings. The locations of site that was identified by address was found to be in the general vicinity of the Subject Property; however, due to regulatory status of the case, was determined to have a low potential for environmental concern to the Subject Property.

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Other orphan sites were identified only by street name. These street names were found in the general vicinity of the Subject Property; however, the specific site locations could not be determined. These orphan sites appeared to have a low potential for environmental impact to the Subject Property due to one or more of the following: type of regulatory listing; estimated distance from the Subject Property; and/or regulatory status of the case.

5.4 Additional Environmental Record Sources

Information requests pertaining to the Subject Property were submitted to the following regulatory agencies. Copies of the information requests and pertinent provided information specific to the Subject Property area are provided in an appendix to this report.

Federal Agencies

Source	Comments
U.S. Department of Transportation, Pipeline and Hazardous Material Safety Administration (PHMSA)	The PHMSA online mapping system for gas transmission pipelines and hazardous liquid pipelines on the Subject Property or adjacent properties was reviewed (https://www.npms.phmsa.dot.gov/PublicViewer/). No pipelines were identified on or adjoining the Subject Property.

State Agencies

Source	Comments
California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC)	The Envirostor website (http://www.envirostor.dtsc.ca.gov/public/) was reviewed for information, and the Subject Property was listed in the database. The files provided on the database were also provided by the User and are summarized in Section 3.1.
Cal/EPA, Regional Water Quality Control Board (RWQCB)	Records pertaining to the larger Pankey Ranch facility were provided to Converse and/or found on the Geotracker website (http://geotracker.waterboards.ca.gov/). The records reviewed were predominantly related to the larger Pankey Ranch facility, and included several documents related to soil sampling completed under the oversight of the RWQCB at locations that were not located within the boundaries of the Subject Property. No items of environmental concern pertaining to the Subject Property were discovered in the records reviewed.

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Source	Comments
California Department of Conservation, California Department of Conservation (DOC), Geologic Energy Management Division (CalGEM)	Converse reviewed the DOC CalGEM Online Well Finder (https://www.conservation.ca.gov/calgem/Pages/Wellfinder.aspx). According to the website, no oil or gas wells are located on the Subject Property.

Local Agencies

Source	Comments
San Diego Air Pollution Control District (APCD)	The APCD provided documents pertaining to the larger Pankey Ranch: In March 2019 a permit was issued to Pankey Ranch to burn 2-tons of material. It is unclear as to whether any of the burn area included the Subject Property. Other permit information provided appears to be related to the offsite gravel mining operations completed by Granite Construction and/or Chandler Aggregates.
San Diego County Department of Environmental Health (SDDEH)	The DEH provided several inspection reports related to the larger Pankey Ranch property. No items of environmental concern pertaining to the Subject Property were found in the records provided.
Methane	According to the CalRecycle Solid Waste Information Systems website (https://www2.calrecycle.ca.gov/SolidWaste/Site/Search), there are no solid waste sites located on or in the vicinity of the Subject Property.

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6.0 Property Reconnaissance

6.1 Methodology

On April 20, 2022 Converse visited the Subject Property to evaluate present use and to identify observable environmental conditions at the Subject Property. Our methodology involved walking the perimeters, center lines, and accessible interior areas of the buildings while noting observed evidence of present and potential environmental concerns

A field-generated map is provided in Appendix B. Pertinent Subject Property photographs are provided in Appendix C.

6.2 Limiting Conditions

Converse's findings are based on the Subject Property conditions observed on Wednesday, April 20, 2022.

- Access was not provided to the water retention basin situated on the southern portion of the Subject Property.

6.3 Interior Observations of Property

No structures are located on the Subject Property.

6.4 Exterior Observations of Property

During our Subject Property visit, Converse made the following observations of the exterior of the Subject Property:

Exterior Observations		
Item or Condition	**Observed Evidence?**	**Comments**
Hazardous Substances & Petroleum Products:	No	
Storage Tanks & Related Equipment:	Yes	Two (2) 400-gallon non-potable water tanks.
Odors:	No	
Standing Surface Water or Other Pools of Liquid:	No	
Drums & Other Containers of Hazardous Substances, Petroleum Products, or Other Unidentified Contents:	No	

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Item or Condition	Observed Evidence?	Comments
Transformers or Equipment containing Polychlorinated Biphenyls (PCBs):	No	
Pits, Ponds, or Lagoons:	Yes	A storm water basin is situated on the southern portion of the Subject Property and a water retention pond is located just north of the basin.
Stained Soil or Pavement:	No	
Stressed Vegetation (other than from insufficient water):	No	
Evidence of Mounds, Depressions or Filled or Graded Areas Suggesting Trash or Other Solid Waste Disposal:	No	
Waste Water or any discharge (including storm water) into a Drain, Ditch, or Stream on or Adjacent to the Property:	Yes	Concrete channel runs along the western property line to retention pond situated on the southern portion of the Subject Property.
Wells (active, inactive, or abandoned):	No	
Septic Systems or Cesspools:	No	
Prior Structures:	No	
Roads, Tracks, Railroad Tracks or Spurs:	Yes	Horse Ranch Creek Road adjoins the western property line. Shire Court adjoins the western half of the northern property line.

6.5 Current Uses of Adjoining Properties

Based on our research and observations during our Subject Property visit, the Subject Property is bordered by the following:

Adjoining Property Use	
Direction	**Current Development**
North	Residential
Northeast	Undeveloped
Northwest	Undeveloped

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Direction	Current Development
South	Residential
Southeast	Undeveloped
Southwest	Residential
East	Undeveloped
West	Undeveloped

6.6 Current Uses of Surrounding Area

Based on our research and observations during our Subject Property visit, the surrounding area of the Subject Property consists of undeveloped land and residential uses.

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7.0 Interviews

During the interviews, the owners and occupants were asked if they had any available documents that would be helpful. The documents that were requested are detailed in Section 4.0 of this report:

Interview:	Comments:
Property Owner:	According to Mr. Allen Kashani of Tri Pointe Homes (formerly Pardee), The Subject Property has been owned by Tri Pointe Homes (formerly Pardee) since approximately 2012. The Subject Property has historically been developed with agricultural land and/or orchards. Mr. Kashani stated that there were no USTs located at the Subject Property. Mr. Kashani was unaware of the use/generation/storage of any hazardous wastes or petroleum products on the Subject Property. Mr. Kashani is unaware of any environmental concerns regarding the adjoining or vicinity properties.
Tenant/ Occupant:	The Subject Property is not currently occupied or developed.
State or Local Government Officials:	Other than the information provided in Section 5.4, no other information was provided by a government official.
Owners and Occupants of Neighboring Sites:	No interviews of owners or occupants of neighboring sites were conducted.

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8.0 Findings

A cursory summary of findings is provided below. However, details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein.

The Subject Property is owned by Tri Pointe Homes. The Subject Property consists of two lots: Lot 54 (11.20 acres) and Lot C (1.46 acres). Lot 54 consists of vacant/graded land used as a construction storage site for neighboring residential development, and Lot C is occupied by a retention basin.

The Subject Property was undeveloped land as early as 1901. By 1939, the Subject Property appeared to be used for dryland farming until at least 2016. A residential dwelling appeared to be in the northwest corner of the Subject Property in 1985 that remained until 2016, when a demolition permit for the removal of a single family dwelling was approved.

A PEA report was completed for the Subject Property and adjacent proposed fill borrow areas in January 2017. Agricultural sampling, import fill material sampling, and sampling of a construction storage yard was completed as part of the PEA. The following is a summary of the findings for the soil matrix samples collected as part of the investigation:

- No VOCs, PCBs, PAHs, or TPH in the gasoline and diesel ranges were reported in the soil samples analyzed during this investigation.
- Total Petroleum Hydrocarbons in the oil range (C23-C40) was reported in one soil sample at a concentration of 52.2 mg/kg, which is less than the screening level of 100 mg/kg.
- Arsenic was reported in 15 of 41 soil samples analyzed during this investigation at a maximum concentration of 3.82 mg/kg, which is less than the screening level of 12 mg/kg.
- Lead was reported as non-detect in all 43 soil samples analyzed.
- Eight metals, arsenic, barium, chromium, cobalt, copper, nickel, vanadium and zinc, were reported at concentrations well below their residential screening levels.
- Two OCPs, DDE and chlordane, were reported in 4 of the 13 composite soil samples analyzed at maximum concentrations of 13 and 2.59 µg/kg respectively. These concentrations are less than their respective screening levels of 2,000 and 440 µg/kg.
- Total organic carbon was reported in 5 of the 36 soil samples analyzed at a maximum concentration of 2,700 mg/kg (0.27%), which is less than the DTSC recommended threshold of 0.5% in potential fill soils.

The results of the human health screening evaluation conducted utilizing a conservative, hypothetical residential use scenario indicated that chemicals detected at the Site will not pose a health risk to future school occupants:

- The total estimated cancer risk for the Site based on the maximum concentrations is 3.6×10^{-8}. This is less than the target goal of 1.0×10^{-6}.
- The Hazard index for the Site is 0.696. This is less than the target of 1.

Converse provided the following recommendations:

- The upper 1-foot of soil at the proposed school site should be removed and disposed of offsite prior to fill activities.
- Evaluation of the soil in the proposed borrow areas indicate that the soils tested are acceptable for use as fill material at the proposed school site, provided the upper 1-footof soil is first removed and disposed of offsite.
- Based upon the results of this and previous investigations and the planned removal of the upper 1-foot of soil, no further action is recommended. No further testing should be required following the conclusion of grading activities.

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Following review of the PEA report, the DTSC concurred with the no further action recommendation, and accepted the PEA.

The Subject Property has since been redeveloped since the acceptance of the PEA by the DTSC. According to a letter prepared by the geotechnical company that completed the grading activities across the Subject Property and proposed borrow areas, the top 1-foot of soil was removed from the borrow area used for fill, as well as from across the the entirety of the Subject Property.

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9.0 Opinion

The historical agricultural, residential, and construction yard uses across the Subject Property are not considered a REC based on the results of the PEA, and the subsequent removal of the top 1-foot of soil across the Subject Property and borrow areas.

No RECs, Historical Recognized Environmental Conditions (HRECs), Controlled Recognized Environmental Conditions (CRECs), or de minimus conditions were identified during this assessment.

No significant data gaps were identified during this assessment that affect the ability of the Environmental Professional (EP) to identify RECs.

There are no unusual circumstances where greater certainty is required regarding RECs.

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10.0 Conclusions and Recommendations

Converse has performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM Practice E1527-13 for 5326 Highway 76, Fallbrook, San Diego County, California. Any exceptions to or deletions from this practice are described in the Limitations and Exceptions of Assessment section of this report. This assessment has revealed no evidence of *recognized environmental conditions* in connection with the Subject Property.

No additional assessment appears warranted.

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11.0 Deviations and Limitations

The following limitations and exceptions were encountered during the course of this assessment:

- Converse was only able to view the stormwater retention basin in the southern corner of the Subject Property through a chain link fence surrounding the basin.

This is not deemed a significant limitation.

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12.0 Additional Non-Scope Services

There are environmental issues outside the scope of the ASTM E1527-13/-21 that can be assessed in connection with a commercial real estate transaction. These are dealt with as non-scope considerations since they do not typically present a Superfund Liability. The specific level of inquiry (if any) is defined in the Proposal which contains a Scope of Work. These non-scope services are very client specific and not covered by the ASTM standard. They are frequently related to the business environmental risk which is defined in the standard as "risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate".

No non-scope issues were addressed during this assessment.

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13.0 Signature of Environmental Professional

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Â§312.10 of 40 CFR 312.

I have the specific qualifications based on education, training and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standard and practices set forth in 40 CFR Part 312.

Site Assessor

Spencer Wagner
Senior Staff Environmental Scientist

Senior Reviewer

Norman S. Eke
Senior Vice President/Managing Officer

This Phase I ESA was completed by the above Environmental Professional. A complete list of preparers, and their responsibilities for this assessment, is provided in the following section (Section 14.0, List of Preparers).

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14.0 List of Preparers

Norman S. Eke
Senior Vice President

B.A., Liberal Studies, Environmental Studies Emphasis, University of California, Santa Barbara, 1988.
Cal/OSHA Certified Asbestos Consultant, #96-2093
NIOSH 582 Equivalent Training

Senior Vice President and Managing Officer of Converse's California Environmental offices. Mr. Eke has served as the Principal-in-Charge and Contract Administrator to deliver services to our public agency and private clients. Mr. Eke has 33 years of experience in the fields of Environmental Due Diligence including Phase I and Phase II Environmental Site Assessments, Asbestos surveys/specifications/abatement monitoring, Preliminary Endangerment Assessments and associated Supplemental Site Investigations and Removal Action Work Plans/Implementation, various forms of Remediation, Human Health Risk Assessment and Indoor Air Quality. Mr. Eke is a former Subcommittee Chairman for E.50-02 Real Assessment and Management of the ASTM E.50 Committee on Environmental Assessment, Risk Management, Corrective Action, which includes Phase I ESA standards.

Principal area of responsibility for this ESA report: Project Management, Client Point of Contact, and Report Review.

Michael A. Van Fleet
Senior Geologist

B.A. Earth Science, University of California, Santa Cruz, 1999
Professional Geologist; California No. 7869, Washington No. 2900

Mr. Van Fleet has over 20 years of experience working as a geologist in the states of California and Washington. The majority of his project experience has been in the areas of environmental assessment and subsequent remediation, but also includes experience in groundwater development. Mr. Van Fleet's experience includes: collection of soil matrix, soil vapor, and groundwater samples; geologic logging of earth materials; designing well completion parameters; regulatory interaction; design and operation of soil vapor and groundwater remediation systems; staff and project management; report preparation and review; and monitoring of contractor activities.

Principal area of responsibility for this ESA report: Report Review.

Spencer Wagner
Senior Staff Environmental Scientist

B.A., Environmental Science and Policy, California State University, Long Beach, 2006
B.A., Geography, California State University, Long Beach, 2006
Certified Wood Destroying Organism (WDO) Inspector

Mr. Wagner has over 15 years' experience conducting Phase I and II Environmental Site Assessments throughout California. Mr. Wagner has completed Phase I ESAs on undeveloped land, residential properties, commercial/retail facilities, industrial facilities, and school sites. His Phase II ESA experience includes collection of soil matrix, soil vapor, indoor air and groundwater samples. Phase II projects worked on have included residential properties, commercial warehousing sites, school sites, dry cleaning facilities, automotive service sites, metal plating facilities and multi-tenant commercial properties

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Principal area of responsibility for this ESA report: Project Management, Client Point of Contact, Historical Research, Regulatory Agency Interaction, Property Reconnaissance, Interviews, and Report Generation.

Katherine Thomas
Staff Environmental Scientist

B.S., Environmental Economics and Policy, Oregon State University, 2019

Ms. Thomas has two years of professional experience which includes government compliance, laboratory analyses of organic material, as well as interpretation of data related to marine mammal conservation. Her experience also includes project management for Phase I & II Environmental Site Assessments (ESAs) and Transaction Screen Process (TSP) reports in Southern California. Her project management duties include conducting site reconnaissance, obtaining and interpreting regulatory agency information/records including regulatory database reports, historical aerial photographs and maps, building permits, and city directories.

Principal area of responsibility for this ESA report: Subject Property Reconnaissance, and Report Generation.

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15.0 References

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Converse Consultants, Preliminary Environmental Assessment Investigation Report, Proposed School Site, Meadowood Development, Fallbrook, California, January 25, 2017.

Department of Toxic Substances Control (DTSC), Approval of Preliminary Environmental Assessment Report, Proposed Meadowood Elementary School Site, Located North of Highway 76 and East of Interstate 15, Fallbrook, San Diego County (Site Code: 404894), February 24, 2017.

Environmental Data Resources (EDR), Inc., Aerial Photographs, April 2022.

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Kashani, Allen, Owner Interview, April 2022.

San Diego County Air Pollution Control District, Request for Information, April 2022.

San Diego County Department of Environmental Health (SDDEH), Request for Information, April 2022.

United States Geological Survey, 7.5-Minute Topographic Quadrangle, Bonsall, 2018.

United States Department of Transportation, Pipeline and Hazardous Material Safety Administration (PHMSA), Pipeline Location Website (https://www.npms.phmsa.dot.gov/default.htm), April 2022.

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Appendix A -

Application for Authorization to Use

Converse Consultants

Geotechnical Engineering, Environmental & Groundwater Science, Inspection & Testing Services

Application for Authorization to Use

TO: Converse Consultants
Environmental Department
717 South Myrtle Avenue
Monrovia, California 91016

Project Title & Date: _____

Project Address: _____

FROM: (Please identify name & address of person/entity applying for permission to use the referenced report.)

_____

_____

_____

Applicant _____ hereby applies for permission to use the referenced report in order to:

_____

_____

_____

Applicant wishes or needs to use the referenced report because:

_____

_____

_____

Applicant also understands and agrees that the referenced document is a copyrighted document and shall remain the sole property of Converse Consultants. Unauthorized use or copying of the report is strictly prohibited without the express written permission of Converse Consultants. *Applicant* understands and agrees that Converse Consultants may withhold such permission at its sole discretion, or grant such permission upon agreement to Terms and Conditions, such as the payment of a re-use fee, amongst others.

Applicant Signature: _____

Applicant Name (print): _____

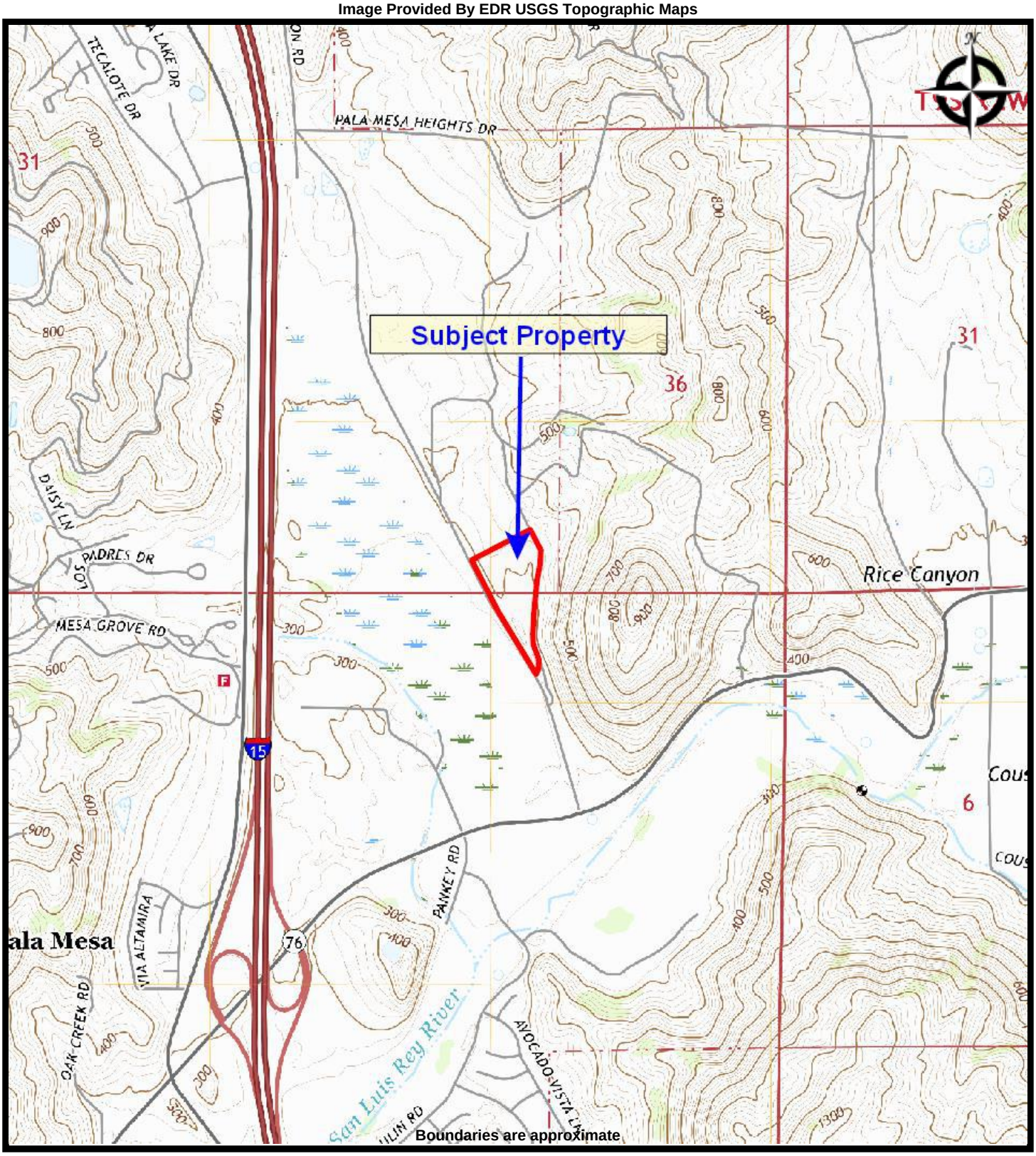
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Date: _____

Appendix B -

Property Plans

Image Provided By EDR USGS Topographic Maps

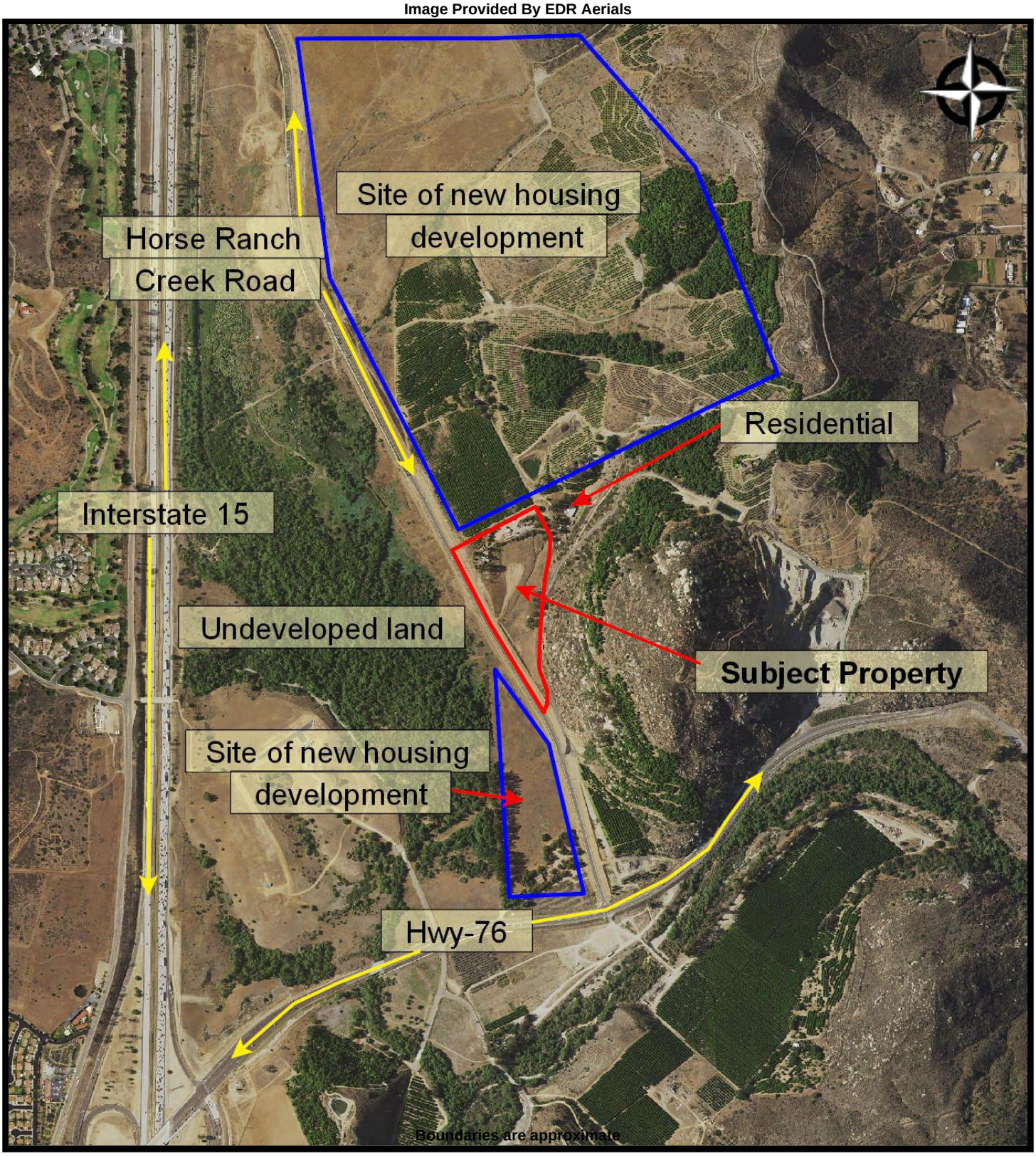


CONVERSE CONSULTANTS
Geotechnical Engineering and Environmental Services

FIGURE 1: SUBJECT PROPERTY LOCATION MAP
MICHAEL BAKER INTL - BONSALL USD
5326 HIGHWAY 76
FALLBROOK, California 92028

PREPARED FOR: Michael Baker International
PROJ. MGR: Norman Eke **DATE:** 5/9/2022
DRAWN BY: Katherine Thomas **PROJ. #:** 21-42-135-01

Image Provided By EDR Aerials



CONVERSE CONSULTANTS
Geotechnical Engineering and Environmental Services

FIGURE 2: SUBJECT PROPERTY MAP
MICHAEL BAKER INTL - BONSALL USD
5326 HIGHWAY 76
FALLBROOK, California 92028

PREPARED FOR: Michael Baker International
PROJ. MGR: Norman Eke **DATE:** 5/9/2022
DRAWN BY: Katherine Thomas **PROJ. #:** 21-42-135-01

Appendix C -

Pertinent Property Photographs



Southern view of the northern property line, along Shire Court.



Western view of the northern property line.

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Eastern view of the southern property line.



Northern view of the eastern property line.

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Southern view of the western property line, along Horse Creek Ranch Road.



Southern view of the western property line.

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Drain ditch running along the western property line.



Construction modules centrally located on the Subject Property.

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Construction materials situated near the eastern property line.



Construction materials situated on the southern portion of the eastern property line.

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Two (2) tanks of non-potable water situated on the southern portion of the Subject Property.



Drain pit on the southern end of the Subject Property.

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East adjacent property, residential and undeveloped land.



South adjacent property.

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Appendix E -

Historical Research

5326 Highway 76

5326 HIGHWAY 76

FALLBROOK, CA 92028

Inquiry Number: 6947084.8

April 21, 2022

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

04/21/22

Site Name:

5326 Highway 76
5326 HIGHWAY 76
FALLBROOK, CA 92028
EDR Inquiry # 6947084.8

Client Name:

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016
Contact: Katherine Thomas

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
2002	1"=500'	Acquisition Date: January 01, 2002	USGS/DOQQ
1996	1"=500'	Acquisition Date: January 01, 1996	USGS/DOQQ
1994	1"=500'	Acquisition Date: January 01, 1994	USGS/DOQQ
1989	1"=500'	Flight Date: August 15, 1989	USDA
1985	1"=500'	Flight Date: February 24, 1985	USDA
1970	1"=500'	Flight Date: March 06, 1970	EDR Proprietary Landiscor
1967	1"=500'	Flight Date: May 07, 1967	USGS
1964	1"=500'	Flight Date: April 10, 1964	USDA
1953	1"=500'	Flight Date: April 14, 1953	USDA
1946	1"=500'	Flight Date: December 29, 1946	USGS
1939	1"=500'	Flight Date: July 08, 1939	USDA

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YEAR: 2016
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N
EDR


INQUIRY #: 6947084.8
YEAR: 2012
= 500'
N
EDR


INQUIRY #: 6947084.8
YEAR: 2009
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EDR


INQUIRY #: 6947084.8
YEAR: 2005
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EDR


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YEAR: 2002
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YEAR: 1996
= 500'
N
EDR



INQUIRY #: 6947084.8

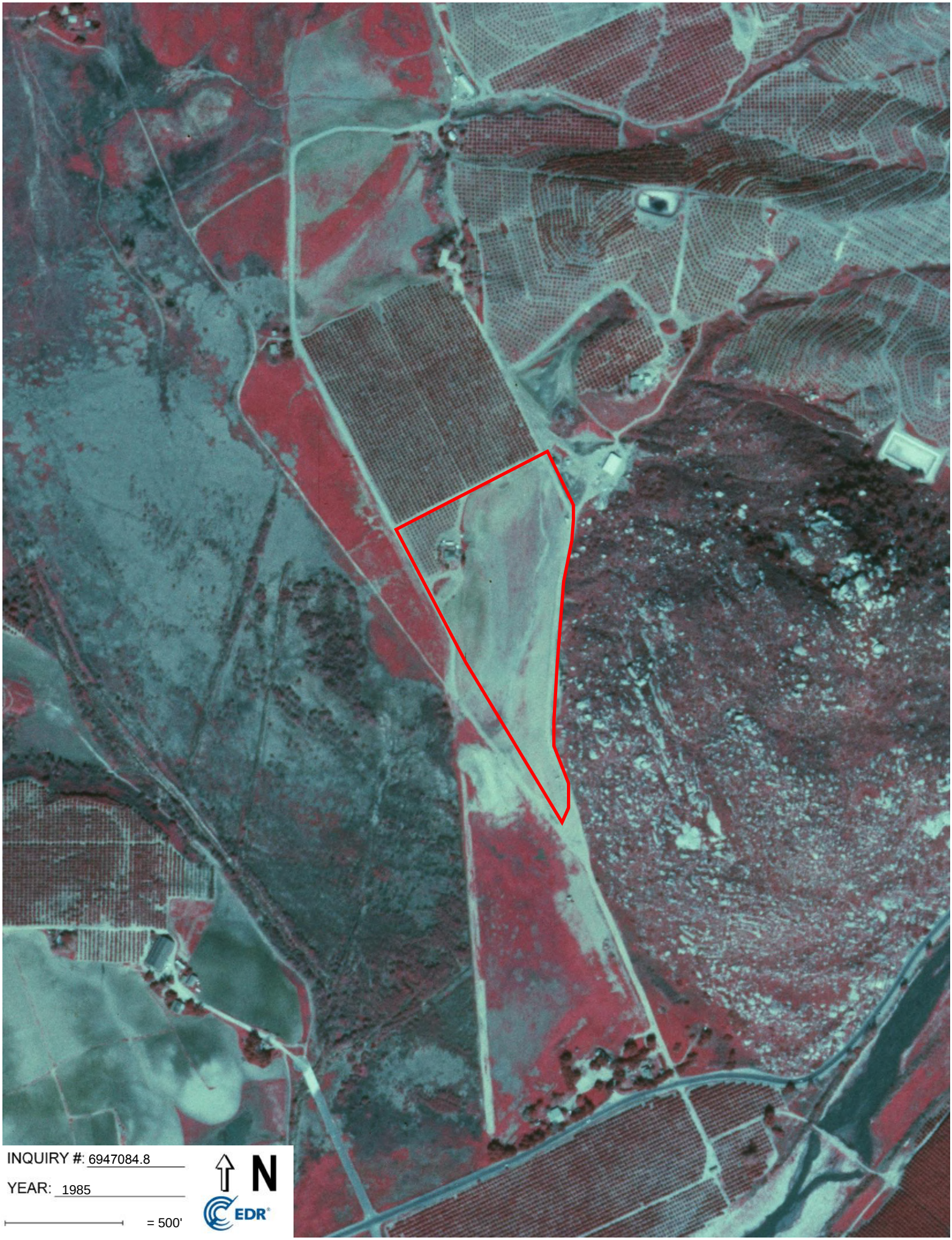
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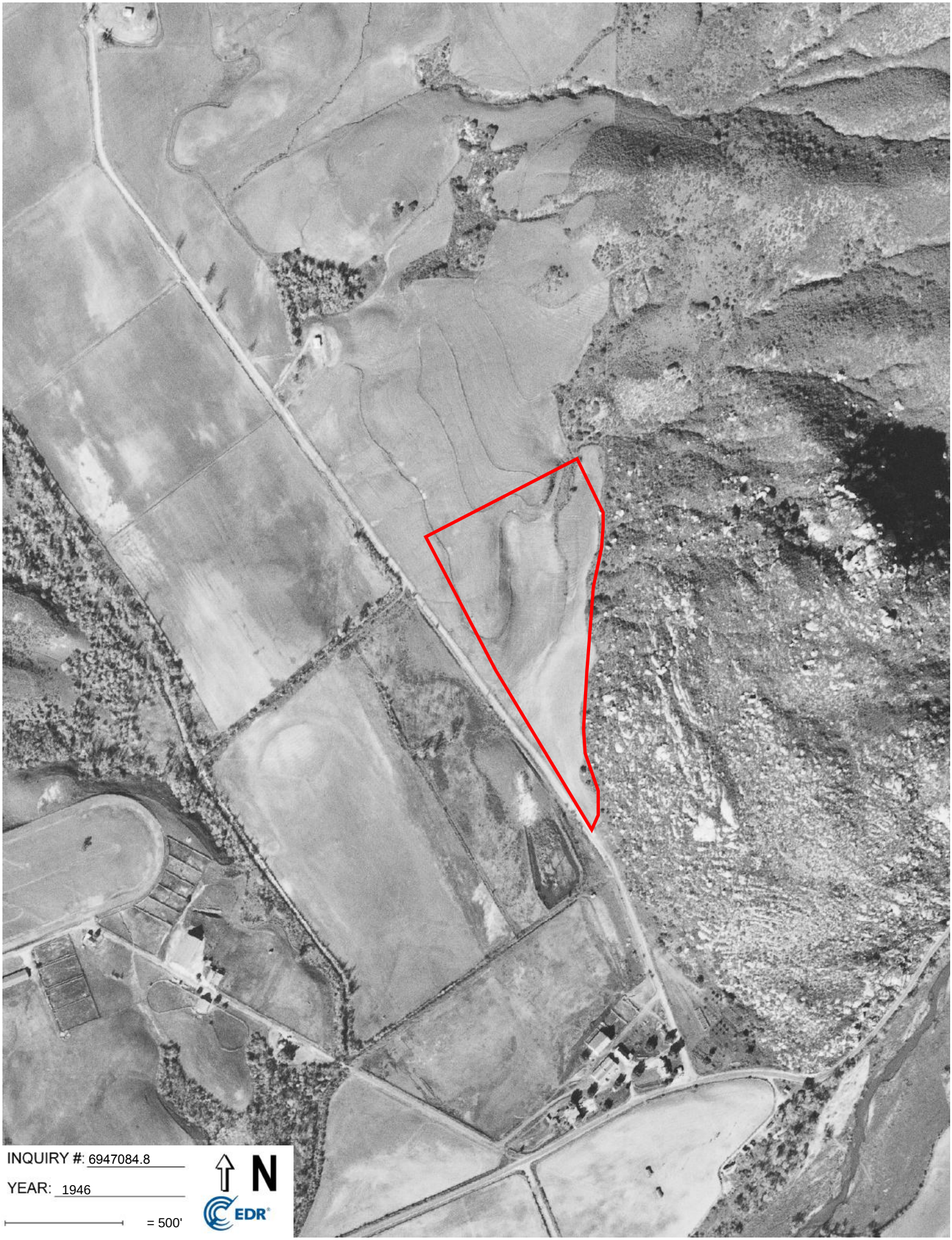
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YEAR: 1953

= 500'

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EDR


INQUIRY #: 6947084.8
YEAR: 1946
= 500'
N
EDR


INQUIRY #: 6947084.8
YEAR: 1939
= 500'
N
EDR

5326 Highway 76

5326 HIGHWAY 76

FALLBROOK, CA 92028

Inquiry Number: 6947084.4

April 19, 2022

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

04/19/22

Site Name:

5326 Highway 76
5326 HIGHWAY 76
FALLBROOK, CA 92028
EDR Inquiry # 6947084.4

Client Name:

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016
Contact: Katherine Thomas

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Converse Consultants were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# NA

Project: 21-42-135-01

Coordinates:

Latitude:	33.343882 33° 20' 38" North
Longitude:	-117.149383 -117° 8' 58" West
UTM Zone:	Zone 11 North
UTM X Meters:	486099.64
UTM Y Meters:	3689420.75
Elevation:	303.41' above sea level

Maps Provided:

2018	1901
2015	
2012	
1975	
1968	
1949	
1948	
1947	

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2018 Source Sheets



Bonsall
2018
7.5-minute, 24000



Pala
2018
7.5-minute, 24000

2015 Source Sheets



Bonsall
2015
7.5-minute, 24000



Pala
2015
7.5-minute, 24000

2012 Source Sheets

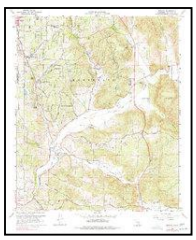


Bonsall
2012
7.5-minute, 24000



Pala
2012
7.5-minute, 24000

1975 Source Sheets



Bonsall
1975
7.5-minute, 24000
Aerial Photo Revised 1967

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1968 Source Sheets

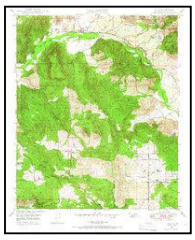


Pala
1968
7.5-minute, 24000
Aerial Photo Revised 1967

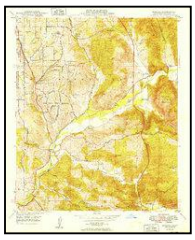


Bonsall
1968
7.5-minute, 24000
Aerial Photo Revised 1967

1949 Source Sheets



Pala
1949
7.5-minute, 24000
Aerial Photo Revised 1946



Bonsall
1949
7.5-minute, 24000
Aerial Photo Revised 1946

1948 Source Sheets



Bonsall
1948
7.5-minute, 24000
Aerial Photo Revised 1946

1947 Source Sheets



TEMECULA
1947
15-minute, 50000

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

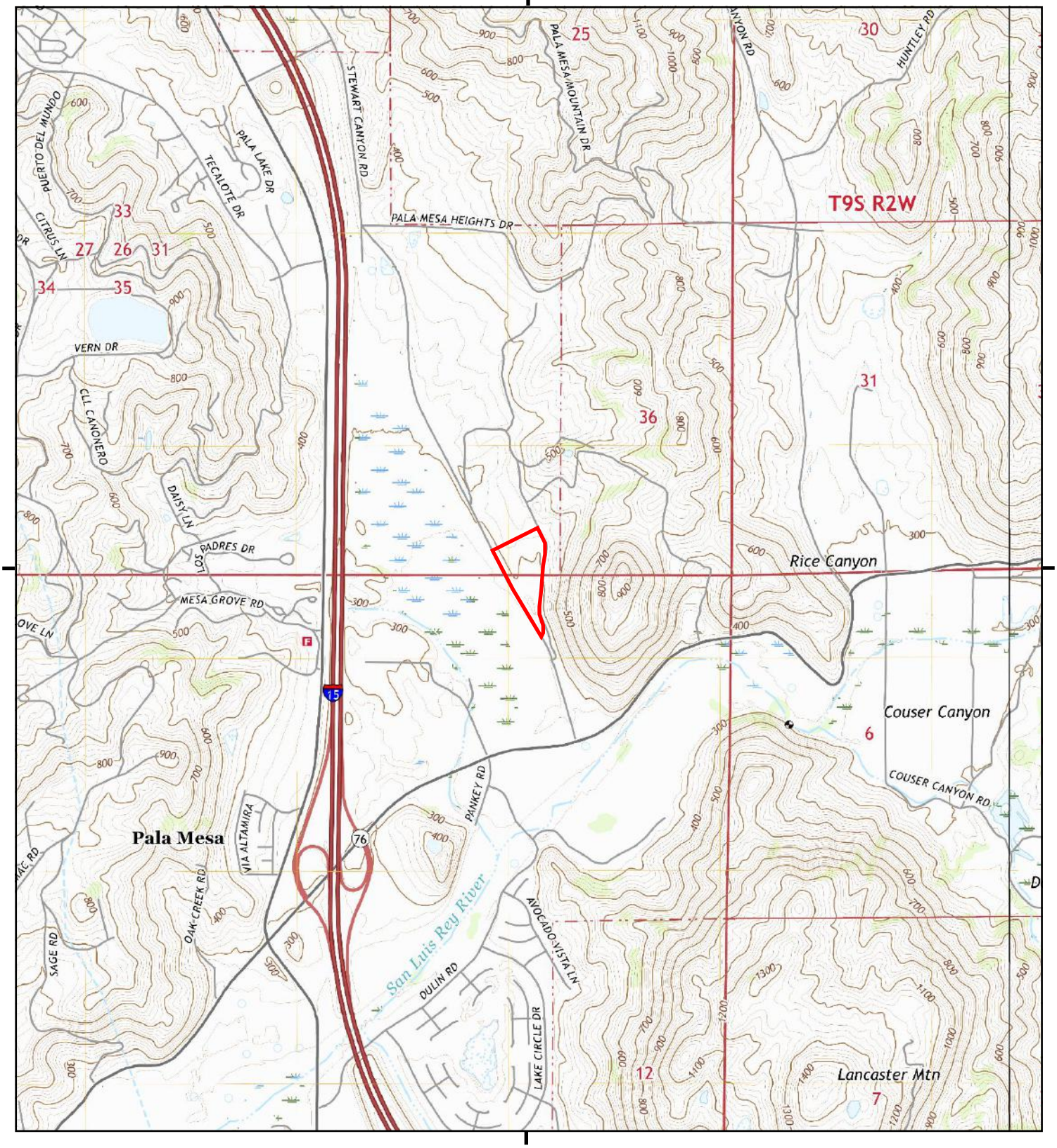
1901 Source Sheets



San Luis Rey
1901
30-minute, 125000

Historical Topo Map

2018



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

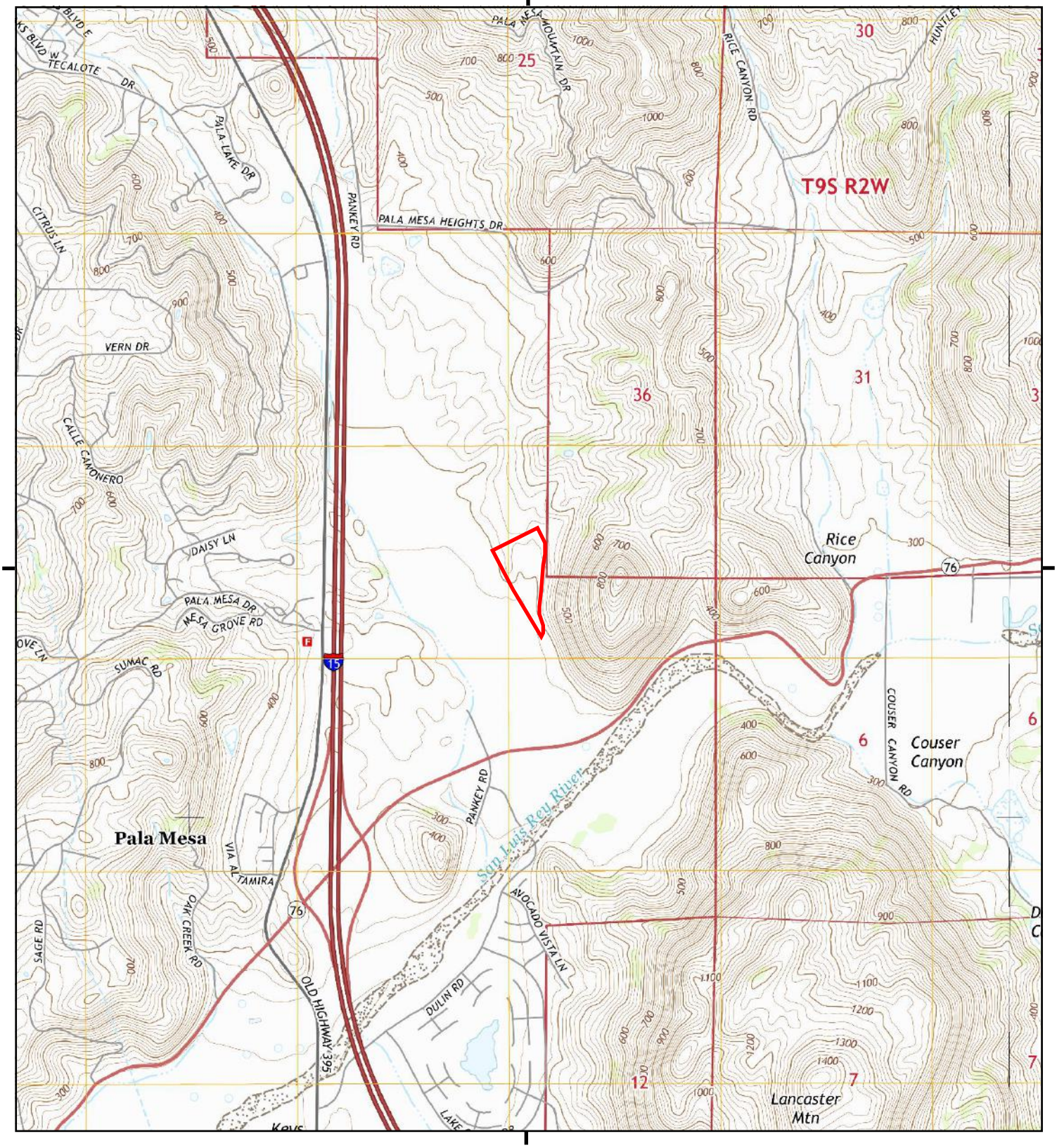
TP, Bonsall, 2018, 7.5-minute
SE, Pala, 2018, 7.5-minute

SITE NAME: 5326 Highway 76
ADDRESS: 5326 HIGHWAY 76
FALLBROOK, CA 92028
CLIENT: Converse Consultants

N

Historical Topo Map

2015



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

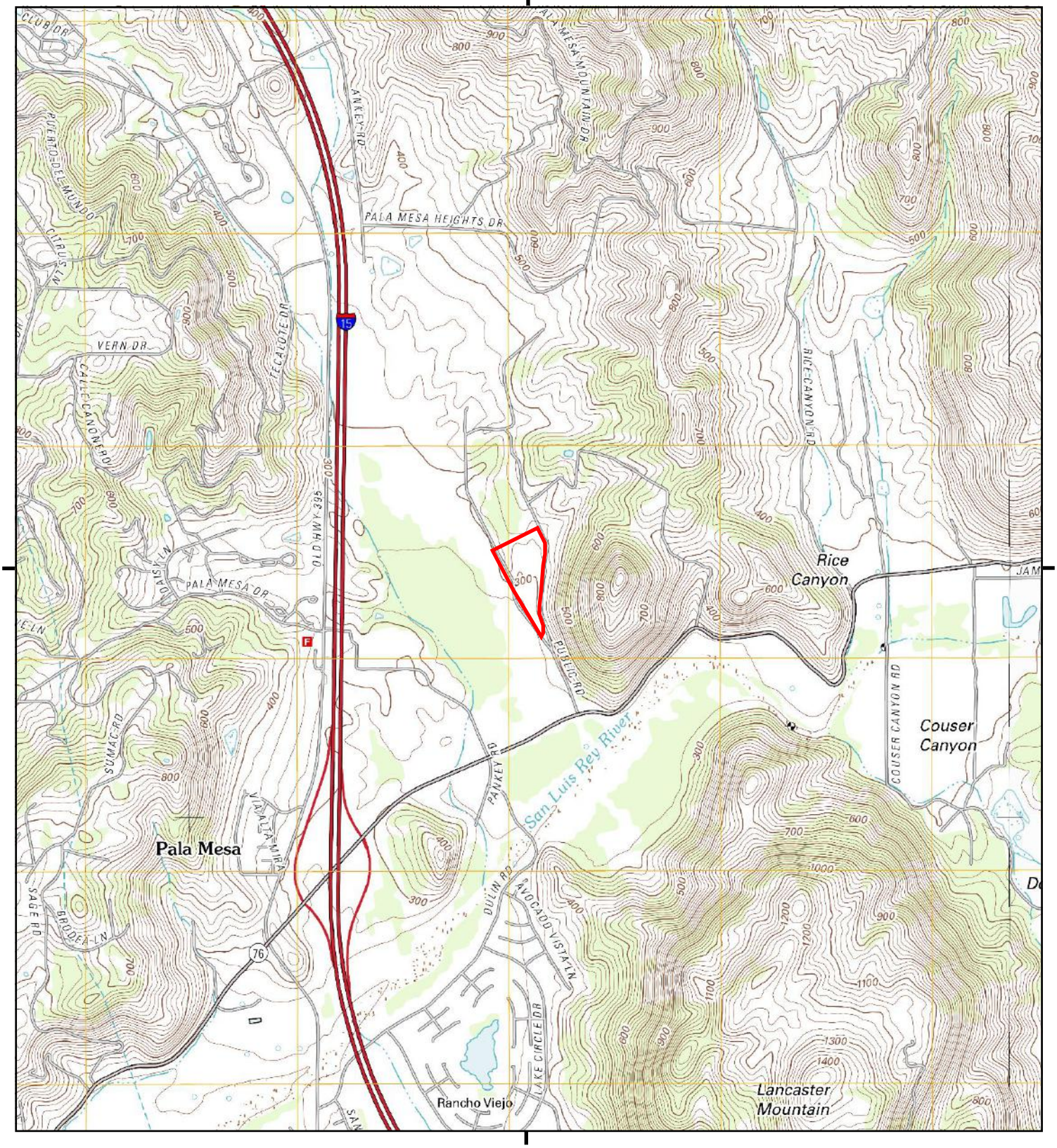
TP, Bonsall, 2015, 7.5-minute
SE, Pala, 2015, 7.5-minute

SITE NAME: 5326 Highway 76
ADDRESS: 5326 HIGHWAY 76
FALLBROOK, CA 92028
CLIENT: Converse Consultants

N

Historical Topo Map

2012



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

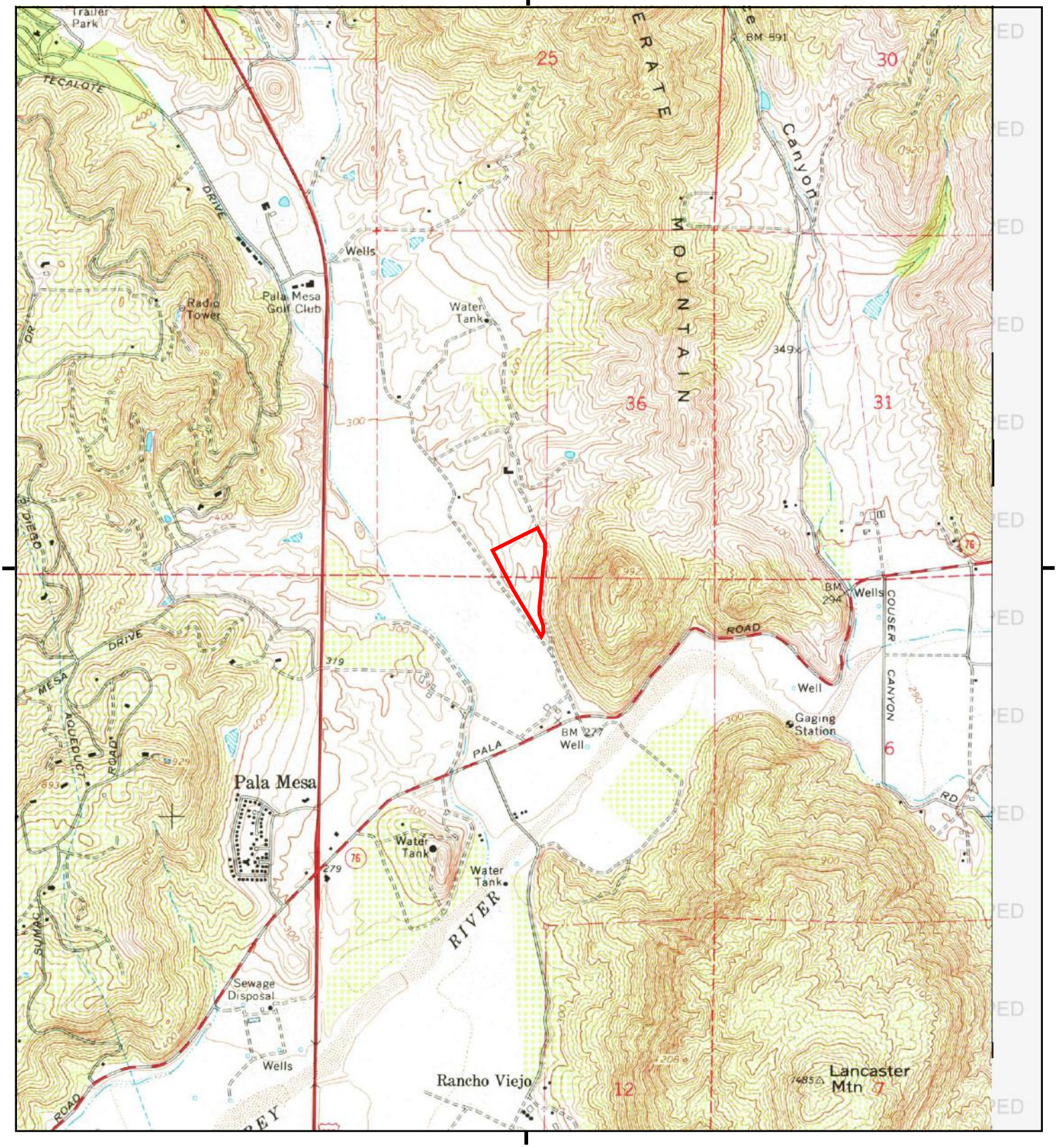
TP, Bonsall, 2012, 7.5-minute
SE, Pala, 2012, 7.5-minute

SITE NAME: 5326 Highway 76
ADDRESS: 5326 HIGHWAY 76
FALLBROOK, CA 92028
CLIENT: Converse Consultants

N

Historical Topo Map

1975



This report includes information from the following map sheet(s).

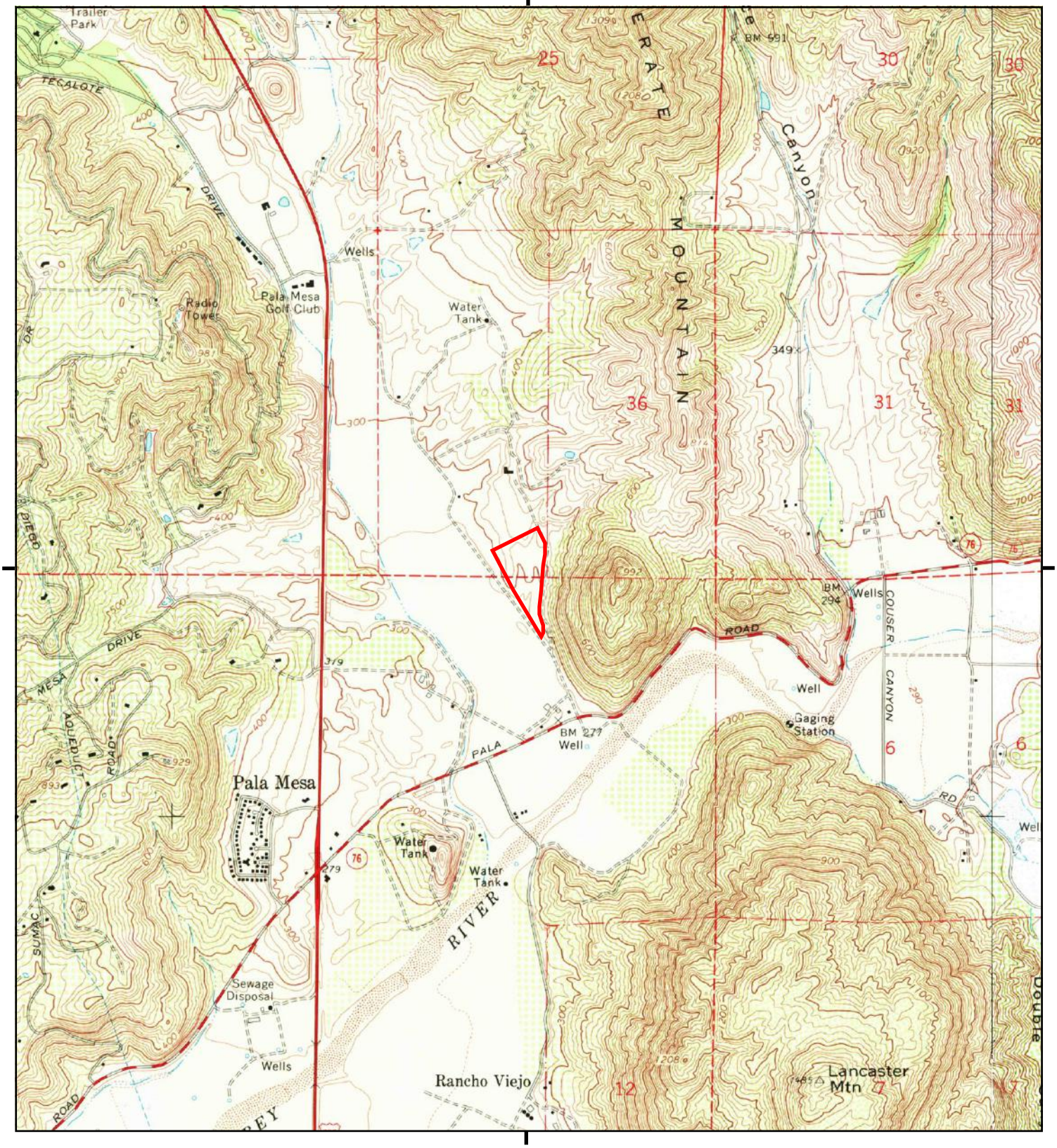
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Bonsall, 1975, 7.5-minute

SITE NAME: 5326 Highway 76
ADDRESS: 5326 HIGHWAY 76
FALLBROOK, CA 92028
CLIENT: Converse Consultants

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

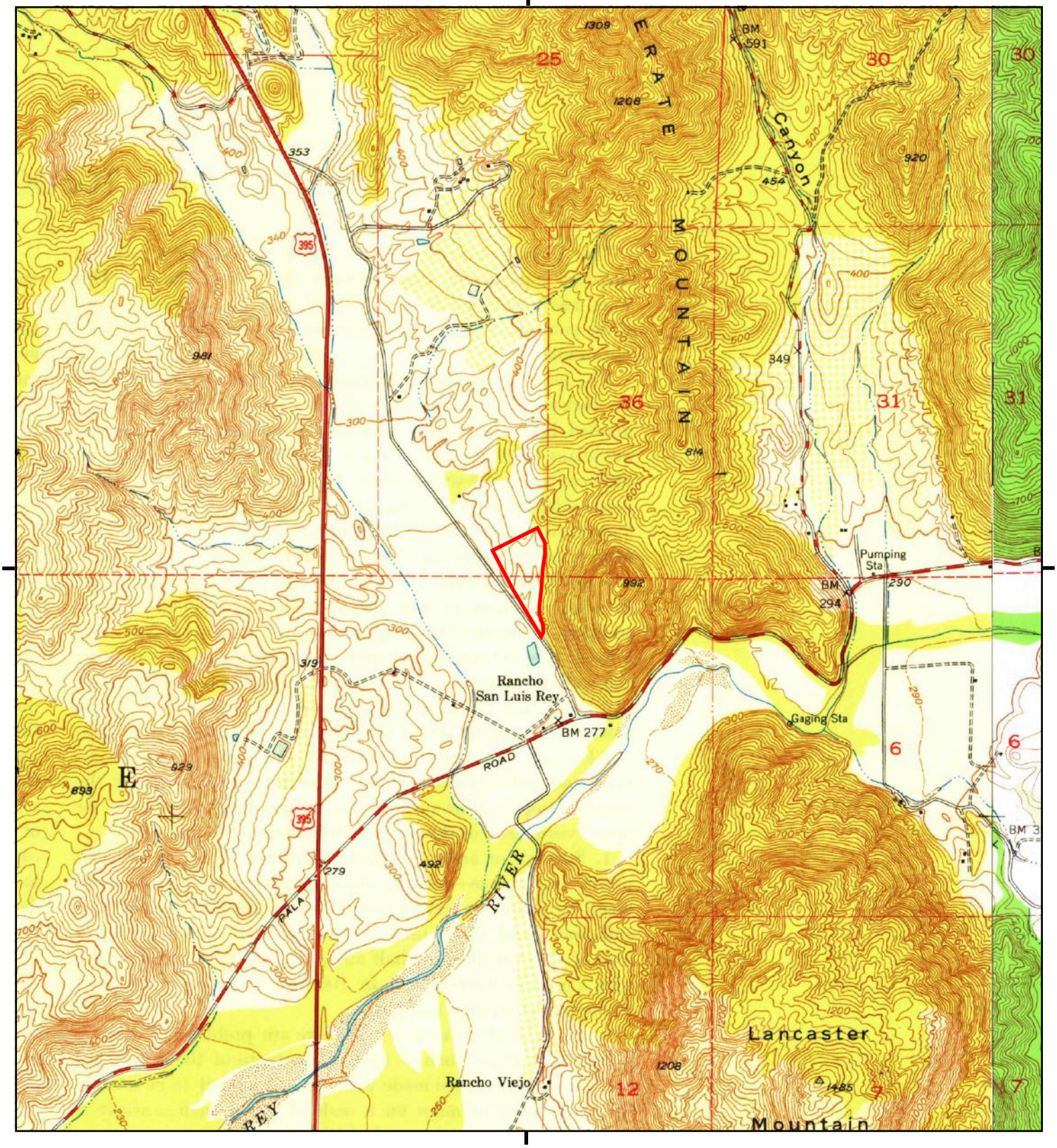
TP, Bonsall, 1968, 7.5-minute
SE, Pala, 1968, 7.5-minute

SITE NAME: 5326 Highway 76
ADDRESS: 5326 HIGHWAY 76
FALLBROOK, CA 92028
CLIENT: Converse Consultants

N

Historical Topo Map

1949



This report includes information from the following map sheet(s).

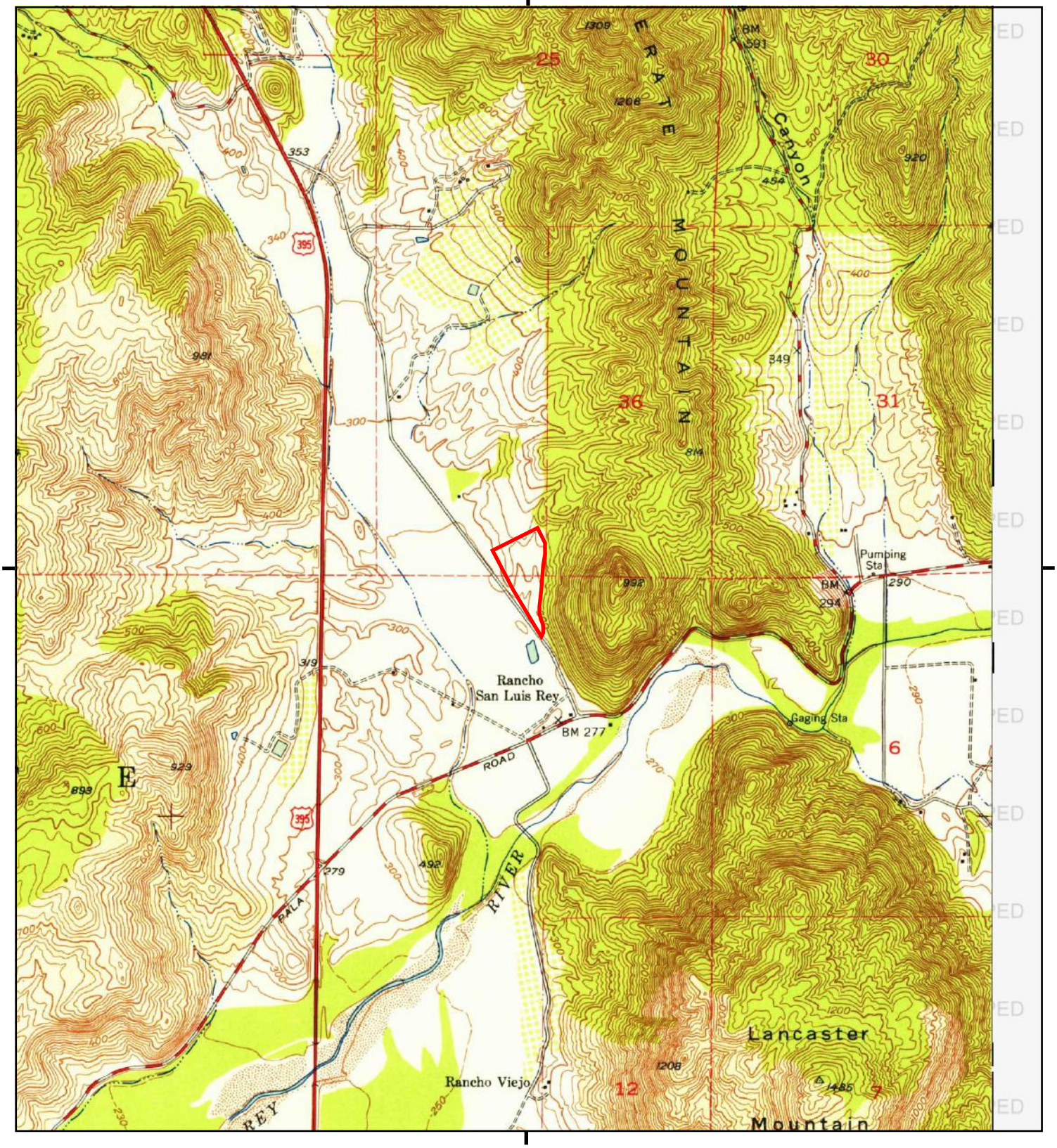
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Bonsall, 1949, 7.5-minute
SE, Pala, 1949, 7.5-minute

SITE NAME: 5326 Highway 76
ADDRESS: 5326 HIGHWAY 76
FALLBROOK, CA 92028
CLIENT: Converse Consultants

N



This report includes information from the following map sheet(s).

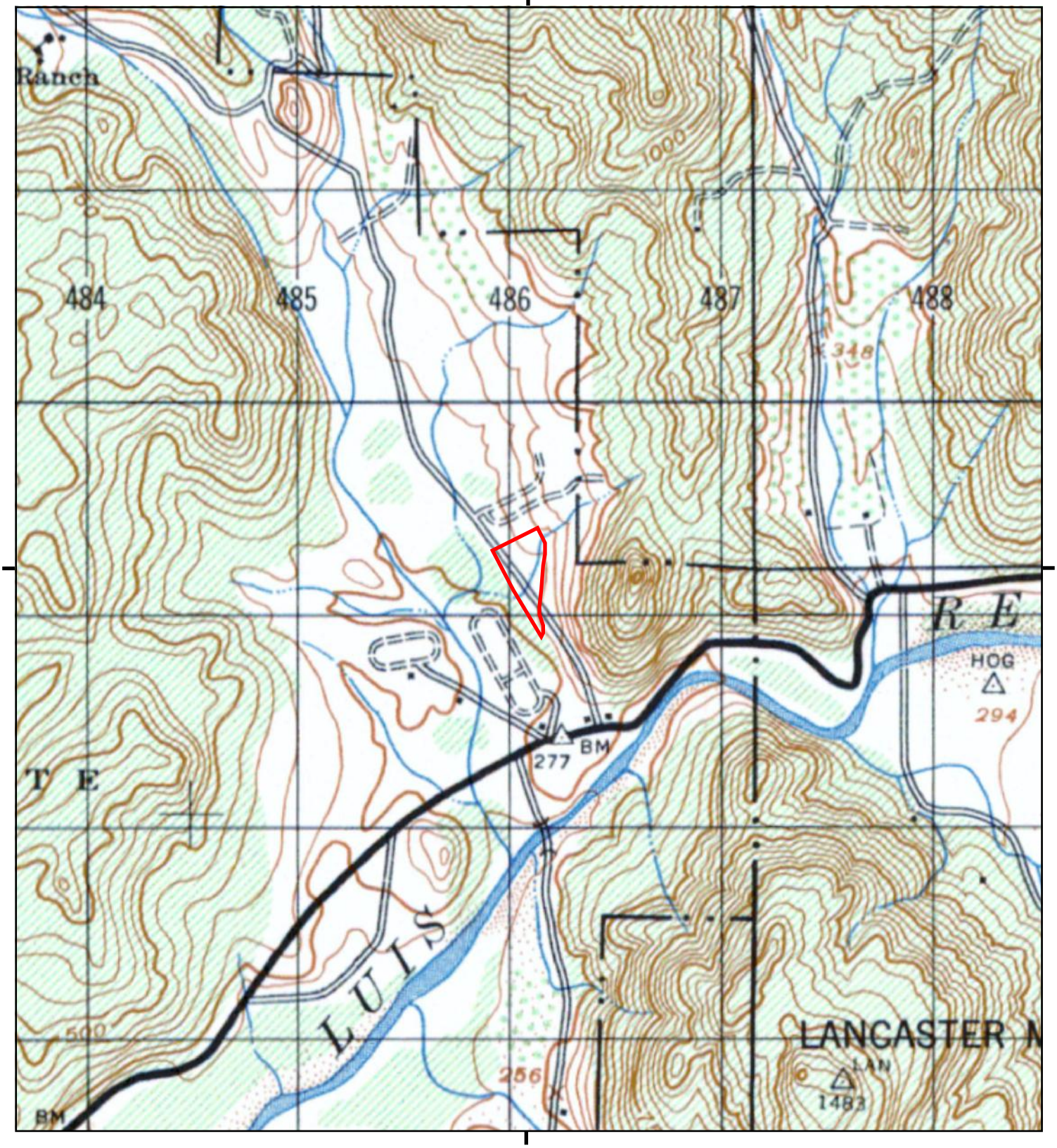
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Bonsall, 1948, 7.5-minute

SITE NAME: 5326 Highway 76
ADDRESS: 5326 HIGHWAY 76
FALLBROOK, CA 92028
CLIENT: Converse Consultants

N



This report includes information from the following map sheet(s).

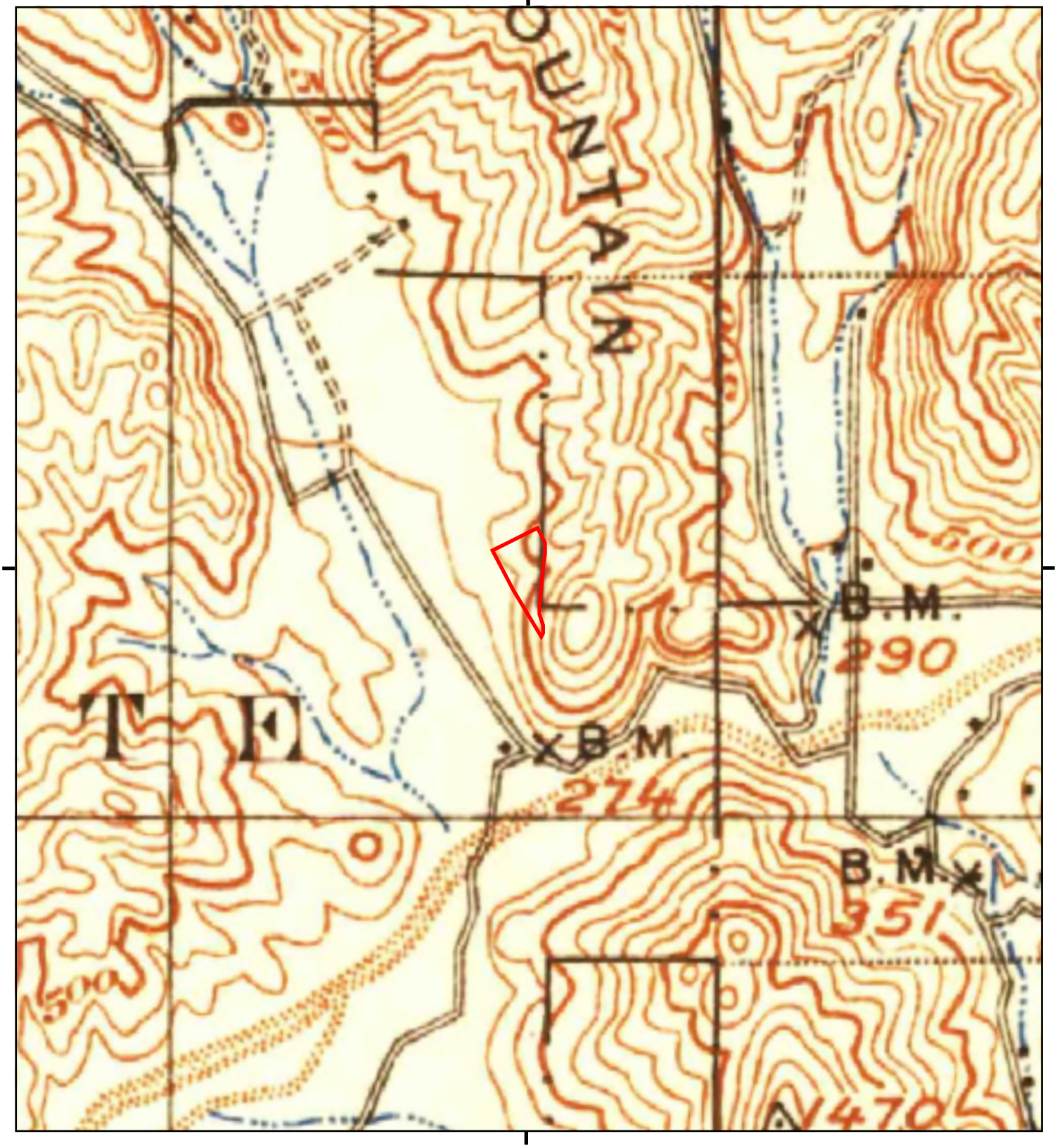
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, TEMECULA, 1947, 15-minute

SITE NAME: 5326 Highway 76
ADDRESS: 5326 HIGHWAY 76
FALLBROOK, CA 92028
CLIENT: Converse Consultants

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, San Luis Rey, 1901, 30-minute

SITE NAME: 5326 Highway 76
ADDRESS: 5326 HIGHWAY 76
FALLBROOK, CA 92028
CLIENT: Converse Consultants

N

5326 Highway 76

5326 HIGHWAY 76

FALLBROOK, CA 92028

Inquiry Number: 6947084.3

April 19, 2022

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

04/19/22

Site Name:

5326 Highway 76
5326 HIGHWAY 76
FALLBROOK, CA 92028
EDR Inquiry # 6947084.3

Client Name:

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016
Contact: Katherine Thomas

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The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 70BB-4AB3-B485

PO # NA

Project 21-42-135-01

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 70BB-4AB3-B485

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- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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5326 Highway 76
5326 HIGHWAY 76
FALLBROOK, CA 92028

Inquiry Number: 6947084.5
April 22, 2022

The EDR-City Directory Image Report

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2017	☑	☐	EDR Digital Archive
2014	☑	☐	EDR Digital Archive
2010	☑	☐	EDR Digital Archive
2005	☑	☐	EDR Digital Archive
2000	☑	☐	EDR Digital Archive
1995	☑	☐	EDR Digital Archive
1992	☑	☐	EDR Digital Archive
1986	☑	☐	Haines Criss-Cross Directory
1982	☑	☐	Haines Criss-Cross Directory
1979	☑	☐	Haines Criss-Cross Directory
1975	☑	☐	Haines Criss-Cross Directory
1971	☑	☐	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

5326 HIGHWAY 76
FALLBROOK, CA 92028

Year	*CD Image*	*Source*
HIGHWAY 76		
2017	pg A1	EDR Digital Archive
2014	pg A2	EDR Digital Archive
2010	pg A3	EDR Digital Archive
2005	pg A4	EDR Digital Archive
2000	pg A5	EDR Digital Archive
1995	pg A6	EDR Digital Archive
1992	pg A7	EDR Digital Archive
1986	pg A8	Haines Criss-Cross Directory
1982	pg A10	Haines Criss-Cross Directory
1982	pg A9	Haines Criss-Cross Directory
1979	pg A11	Haines Criss-Cross Directory
1975	pg A12	Haines Criss-Cross Directory
1971	pg A13	Haines Criss-Cross Directory

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*	
CRIOLLO WAY			
2017	-	EDR Digital Archive	Street not listed in Source
2014	-	EDR Digital Archive	Street not listed in Source
2010	-	EDR Digital Archive	Street not listed in Source
2005	-	EDR Digital Archive	Street not listed in Source
2000	-	EDR Digital Archive	Street not listed in Source
1995	-	EDR Digital Archive	Street not listed in Source
1992	-	EDR Digital Archive	Street not listed in Source
1986	-	Haines Criss-Cross Directory	Street not listed in Source
1982	-	Haines Criss-Cross Directory	Street not listed in Source
1979	-	Haines Criss-Cross Directory	Street not listed in Source
1975	-	Haines Criss-Cross Directory	Street not listed in Source
1971	-	Haines Criss-Cross Directory	Street not listed in Source
HORSE RANCH CREEK RD			
2017	-	EDR Digital Archive	Street not listed in Source
2014	-	EDR Digital Archive	Street not listed in Source
2010	-	EDR Digital Archive	Street not listed in Source
2005	-	EDR Digital Archive	Street not listed in Source
2000	-	EDR Digital Archive	Street not listed in Source
1995	-	EDR Digital Archive	Street not listed in Source
1992	-	EDR Digital Archive	Street not listed in Source
1986	-	Haines Criss-Cross Directory	Street not listed in Source
1982	-	Haines Criss-Cross Directory	Street not listed in Source
1979	-	Haines Criss-Cross Directory	Street not listed in Source
1975	-	Haines Criss-Cross Directory	Street not listed in Source
1971	-	Haines Criss-Cross Directory	Street not listed in Source

FINDINGS

Year	*CD Image*	*Source*	
SHIRE CT			
2017	-	EDR Digital Archive	Street not listed in Source
2014	-	EDR Digital Archive	Street not listed in Source
2010	-	EDR Digital Archive	Street not listed in Source
2005	-	EDR Digital Archive	Street not listed in Source
1995	-	EDR Digital Archive	Street not listed in Source
1992	-	EDR Digital Archive	Street not listed in Source
1986	-	Haines Criss-Cross Directory	Street not listed in Source
1982	-	Haines Criss-Cross Directory	Street not listed in Source
1979	-	Haines Criss-Cross Directory	Street not listed in Source
1975	-	Haines Criss-Cross Directory	Street not listed in Source
1971	-	Haines Criss-Cross Directory	Street not listed in Source

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

HIGHWAY 76 2017

5326 SOTO, PABLO C
5606 PANKEY, WILLIAM H

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

HIGHWAY 76 2014

5248	GARCIA, SIMON
5324	LOPEZ, LUIS
5326	SOTO, PABLO C
5606	PANKEY, WILLIAM H

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

HIGHWAY 76 2010

5324 LOPEZ, LUIS
5326 PAGETT, SM
5606 PANKEY, WILLIAM H

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

HIGHWAY 76 2005

5326 PAGETT, SM
5328 PANKEY RANCH INC
SOTO, ELIZABETH
5606 PANKEY, WILLIAM H

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

HIGHWAY 76 2000

5326 HENDRIX, KRISTIN M
5338 PANKEY, ROBERT H
5606 PANKEY, WILLIAM H

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

HIGHWAY 76 1995

4730 MOBIL OIL CORP

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

HIGHWAY 76 1992

4555 MOR TREES

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

HIGHWAY 76 1986



HWY 76 92028
FALLBROOK

9256..... APARTMENTS

CONTRERAS BALTAZAR	728-0961	9
CORTEZ AGUSTIN	728-0722	8
LEE GLORIA	728-3868	1
MUNGUIA JOSE	728-1299	+6
SCHMIDT DON	728-0942	+6

9256.....

★ 0 BUS 5 RES 2 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

HIGHWAY 76 1982

HWY 76 92028
FALLBROOK

9256.....	APARTMENTS		
	CONTRERAS BALTASAR	728-0961	9
	CORTEZ AGUSTIN	728-0722	8
	HODGE ROBT	728-4231	1
	LEE GLORIA	728-3858	1
	MAGANA SALVADOR	728-3160	9
	MUNGUIA JOSE	723-1738	D
	PEREZ RAUL	723-8388	1
	RAMIREZ JOSE	723-8D55	+2
9256.....			
NO #	FAUBUS RAYMOND J	728-5918	8
NO #	LOPEZ ARMANDO	728-0389	7

HAINES & CO., INC. INFORMATION ON THIS PAGE MAY

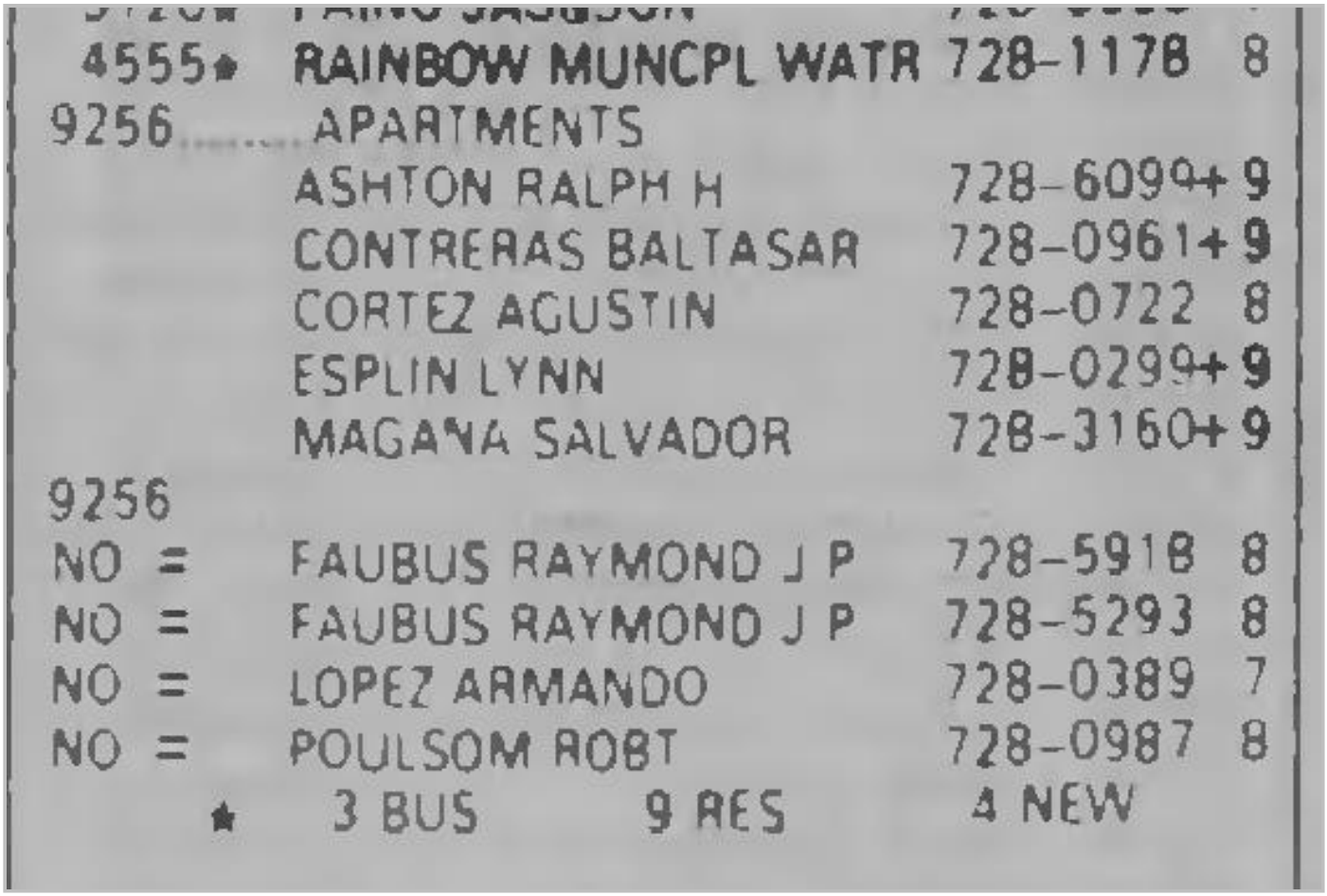
Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

HIGHWAY 76 1982



Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

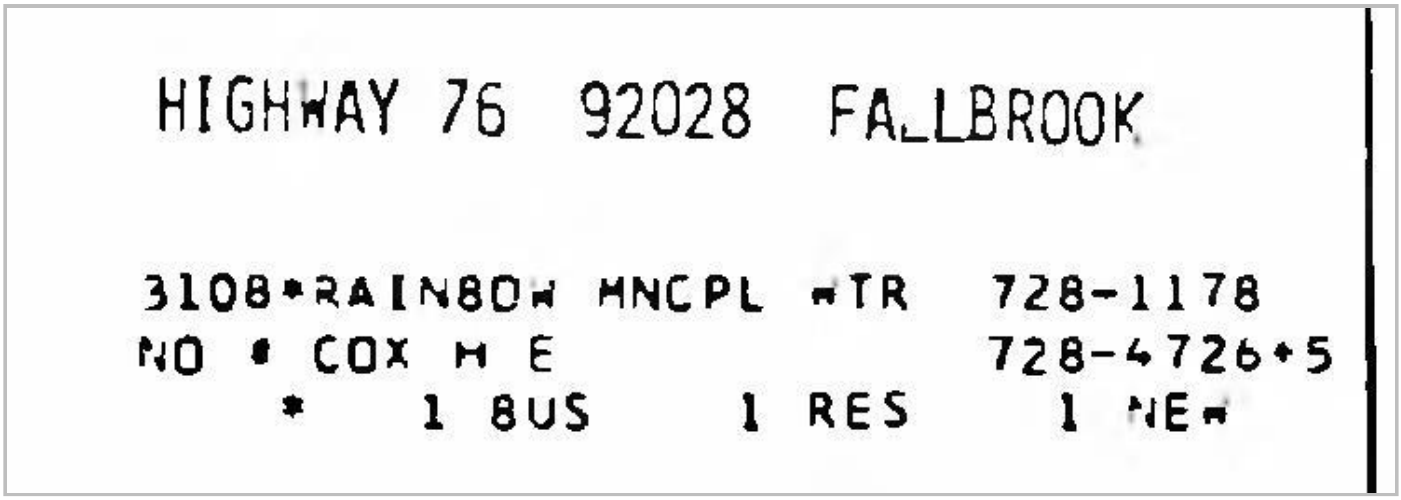
HIGHWAY 76 1979



4555★	RAINBOW MUNCPL WATR	728-1178	8
9256	APARTMENTS		
	ASHTON RALPH H	728-6099+	9
	CONTRERAS BALTASAR	728-0961+	9
	CORTEZ AGUSTIN	728-0722	8
	ESPLIN LYNN	728-0299+	9
	MAGAÑA SALVADOR	728-3160+	9
9256			
NO =	FAUBUS RAYMOND J P	728-5918	8
NO =	FAUBUS RAYMOND J P	728-5293	8
NO =	LOPEZ ARMANDO	728-0389	7
NO =	POULSOM ROBT	728-0987	8
★	3 BUS 9 RES	4 NEW	

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

HIGHWAY 76 1975



HIGHWAY 76 92028 FALLBROOK

3108*RAINBOW MNCPL *TR 728-1178
NO * COX M E 728-4726*5
* 1 BUS 1 RES 1 NE*

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

HIGHWAY 76 1971

HIGHWAY 76 92028 FALLBROOK

3108*RAINBOW MNCPL WTR 728-1178
* 1 BUS 0 RES 0 NEW

Appendix F -

EDR-Radius Map Report

5326 Highway 76
5326 HIGHWAY 76
FALLBROOK, CA 92028

Inquiry Number: 6947084.2s
April 19, 2022

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527-21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

5326 HIGHWAY 76
FALLBROOK, CA 92028

COORDINATES

Latitude (North):	33.3438820 - 33ˆ 20' 37.97''
Longitude (West):	117.1493830 - 117ˆ 8' 57.77''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	486099.3
UTM Y (Meters):	3689228.5
Elevation:	305 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	12014832 BONSALL, CA
Version Date:	2018

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140603
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
5326 HIGHWAY 76
FALLBROOK, CA 92028

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	MEADOWOOD PA2-OPTION	NO ADDRESS - PROPERT	CERS	Higher	1 ft.
A2	PROPOSED MEADOWOOD D	5326 PALA ROAD	CERS	Higher	1 ft.
3	HORSE CREEK RIDGE TR	HORSE CREEK RANCH RD	NPDES, CIWQS, CERS	Lower	1 ft.
A4	MEADOWOOD PA2-OPTION	NO ADDRESS - PROPERT	ENVIROSTOR, SCH	Higher	1 ft.
5	EDISON CONSTRUCTION		US MINES	Higher	779, 0.148, NE
6	PALOMAR COMMUNITY CO	35090 HORSE RANCH CR	San Diego Co. HMMD, CERS HAZ WASTE, CERS, HWTS	Lower	1122, 0.213, WNW
7	RAINBOW FARM, LLC	0 PALA RD	SAN DIEGO CO. SAM, CPS-SLIC, CERS	Higher	1947, 0.369, NNW
8	HORSE RANCH CREEK RO	0 HORSE RANCH CREEK	CPS-SLIC, CERS	Lower	2090, 0.396, NW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL ---- National Priority List
Proposed NPL ---- Proposed National Priority List Sites
NPL LIENS ---- Federal Superfund Liens

Lists of Federal Delisted NPL sites

Delisted NPL ---- National Priority List Deletions

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY ---- Federal Facility Site Information listing
SEMS ---- Superfund Enterprise Management System

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE ---- Superfund Enterprise Management System Archive

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS ---- Corrective Action Report

Lists of Federal RCRA TSD facilities

RCRA-TSDF ---- RCRA - Treatment, Storage and Disposal

Lists of Federal RCRA generators

RCRA-LQG ---- RCRA - Large Quantity Generators
RCRA-SQG ---- RCRA - Small Quantity Generators
RCRA-VSQG ---- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---- Land Use Control Information System

US ENG CONTROLS ..... Engineering Controls Sites List
US INST CONTROLS ..... Institutional Controls Sites List

Federal ERNS list

ERNS ..... Emergency Response Notification System

Lists of state- and tribal (Superfund) equivalent sites

RESPONSE ..... State Response Sites

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF ..... Solid Waste Information System

Lists of state and tribal leaking storage tanks

LUST ..... Geotracker's Leaking Underground Fuel Tank Report
INDIAN LUST ..... Leaking Underground Storage Tanks on Indian Land

Lists of state and tribal registered storage tanks

FEMA UST ..... Underground Storage Tank Listing
UST ..... Active UST Facilities
AST ..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST ..... Underground Storage Tanks on Indian Land

Lists of state and tribal voluntary cleanup sites

VCP ..... Voluntary Cleanup Program Properties
INDIAN VCP ..... Voluntary Cleanup Priority Listing

Lists of state and tribal brownfield sites

BROWNFIELDS ..... Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT ..... Waste Management Unit Database
SWRCY ..... Recycler Database
HAULERS ..... Registered Waste Tire Haulers Listing
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
ODI ..... Open Dump Inventory
IHS OPEN DUMPS ..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ..... Delisted National Clandestine Laboratory Register

HIST Cal-Sites	Historical Calsites Database
CDL	Clandestine Drug Labs
San Diego Co. HMMD	Hazardous Materials Management Division Database
Toxic Pits	Toxic Pits Cleanup Act Sites
US CDL	National Clandestine Laboratory Register
PFAS	PFAS Contamination Site Location Listing
AQUEOUS FOAM	Former Fire Training Facility Assessments Listing

Local Lists of Registered Storage Tanks

SWEEPS UST	SWEEPS UST Listing
HIST UST	Hazardous Substance Storage Container Database
CERS TANKS	California Environmental Reporting System (CERS) Tanks
CA FID UST	Facility Inventory Database

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing

DOT OPS ---- Incident and Accident Data
CONSENT ---- Superfund (CERCLA) Consent Decrees
INDIAN RESERV ---- Indian Reservations
FUSRAP ---- Formerly Utilized Sites Remedial Action Program
UMTRA ---- Uranium Mill Tailings Sites
LEAD SMELTERS ---- Lead Smelter Sites
US AIRS ---- Aerometric Information Retrieval System Facility Subsystem
ABANDONED MINES ---- Abandoned Mines
FINDS ---- Facility Index System/Facility Registry System
UXO ---- Unexploded Ordnance Sites
ECHO ---- Enforcement & Compliance History Information
DOCKET HWC ---- Hazardous Waste Compliance Docket Listing
FUELS PROGRAM ---- EPA Fuels Program Registered Listing
CA BOND EXP. PLAN ---- Bond Expenditure Plan
Cortese ---- "Cortese" Hazardous Waste & Substances Sites List
CUPA Listings ---- CUPA Resources List
DRYCLEANERS ---- Cleaner Facilities
EMI ---- Emissions Inventory Data
ENF ---- Enforcement Action Listing
Financial Assurance ---- Financial Assurance Information Listing
HAZNET ---- Facility and Manifest Data
ICE ---- ICE
HIST CORTESE ---- Hazardous Waste & Substance Site List
HWP ---- EnviroStor Permitted Facilities Listing
HWT ---- Registered Hazardous Waste Transporter Database
MINES ---- Mines Site Location Listing
MWMP ---- Medical Waste Management Program Listing
PEST LIC ---- Pesticide Regulation Licenses Listing
PROC ---- Certified Processors Database
Notify 65 ---- Proposition 65 Records
UIC ---- UIC Listing
UIC GEO ---- UIC GEO (GEOTRACKER)
WASTEWATER PITS ---- Oil Wastewater Pits Listing
WDS ---- Waste Discharge System
WIP ---- Well Investigation Program Case List
MILITARY PRIV SITES ---- MILITARY PRIV SITES (GEOTRACKER)
PROJECT ---- PROJECT (GEOTRACKER)
WDR ---- Waste Discharge Requirements Listing
SAN DIEGO CO LOP ---- Local Oversight Program Listing
NON-CASE INFO ---- NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS ---- OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS ---- PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT ---- SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ ---- Well Stimulation Project (GEOTRACKER)
HWTS ---- Hazardous Waste Tracking System
MINES MRDS ---- Mineral Resources Data System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP ---- EDR Proprietary Manufactured Gas Plants
EDR Hist Auto ---- EDR Exclusive Historical Auto Stations
EDR Hist Cleaner ---- EDR Exclusive Historical Cleaners

EXECUTIVE SUMMARY

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF ---------- Recovered Government Archive Solid Waste Facilities List
RGA LUST ---------- Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 01/24/2022 has revealed that there is 1 ENVIROSTOR site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MEADOWOOD PA2-OPTION Facility Id: 60001970 Status: No Further Action	***NO ADDRESS - PROPERT***	***0 - 1/8 (0.000 mi.)***	***A4***	***19***

Lists of state and tribal leaking storage tanks

SAN DIEGO CO. SAM: The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

A review of the SAN DIEGO CO. SAM list, as provided by EDR, and dated 03/23/2010 has revealed that

there is 1 SAN DIEGO CO. SAM site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
RAINBOW FARM, LLC	***0 PALA RD***	***NNW 1/4 - 1/2 (0.369 mi.)***	***7***	***31***
Case Number: H39682-001				
Facility Status: Preliminary Assessment				

CPS-SLIC: Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the CPS-SLIC list, as provided by EDR, has revealed that there are 2 CPS-SLIC sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
RAINBOW FARM, LLC	***0 PALA RD***	***NNW 1/4 - 1/2 (0.369 mi.)***	***7***	***31***
Database: CPS-SLIC, Date of Government Version: 12/06/2021				
Facility Status: Completed - Case Closed				
Global Id: T06019763926				

Lower Elevation	Address	Direction / Distance	Map ID	Page
HORSE RANCH CREEK RO	***0 HORSE RANCH CREEK***	***NW 1/4 - 1/2 (0.396 mi.)***	***8***	***32***
Database: CPS-SLIC, Date of Government Version: 12/06/2021				
Facility Status: Completed - Case Closed				
Global Id: T10000002606				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

SCH: This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category. depending on the level of threat to public health and safety or the. environment they pose.

A review of the SCH list, as provided by EDR, and dated 01/24/2022 has revealed that there is 1 SCH site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MEADOWOOD PA2-OPTION	***NO ADDRESS - PROPERT***	***0 - 1/8 (0.000 mi.)***	***A4***	***19***
Facility Id: 60001970				
Status: No Further Action				

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 01/18/2022 has revealed that there is 1 CERS HAZ WASTE site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
PALOMAR COMMUNITY CO	***35090 HORSE RANCH CR***	***WNW 1/8 - 1/4 (0.213 mi.)***	***6***	***23***

Other Ascertainable Records

US MINES: Mines Master Index File. The source of this database is the Dept. of Labor, Mine Safety and Health Administration.

A review of the US MINES list, as provided by EDR, has revealed that there is 1 US MINES site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
EDISON CONSTRUCTION Database: US MINES, Date of Government Version: 11/02/2021 Mine ID:: 0405902		NE 1/8 - 1/4 (0.148 mi.)	5	22

NPDES: A listing of NPDES permits, including stormwater.

A review of the NPDES list, as provided by EDR, and dated 11/09/2021 has revealed that there is 1 NPDES site within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HORSE CREEK RIDGE TR Facility Status: Active	***HORSE CREEK RANCH RD***	***0 - 1/8 (0.000 mi.)***	***3***	***10***

CIWQS: The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

A review of the CIWQS list, as provided by EDR, and dated 11/30/2021 has revealed that there is 1 CIWQS site within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HORSE CREEK RIDGE TR	***HORSE CREEK RANCH RD***	***0 - 1/8 (0.000 mi.)***	***3***	***10***

EXECUTIVE SUMMARY

CERS: The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

A review of the CERS list, as provided by EDR, and dated 01/18/2022 has revealed that there are 3 CERS sites within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MEADOWOOD PA2-OPTION	NO ADDRESS - PROPERT	0 - 1/8 (0.000 mi.)	A1	9
PROPOSED MEADOWOOD D	5326 PALA ROAD	0 - 1/8 (0.000 mi.)	A2	9

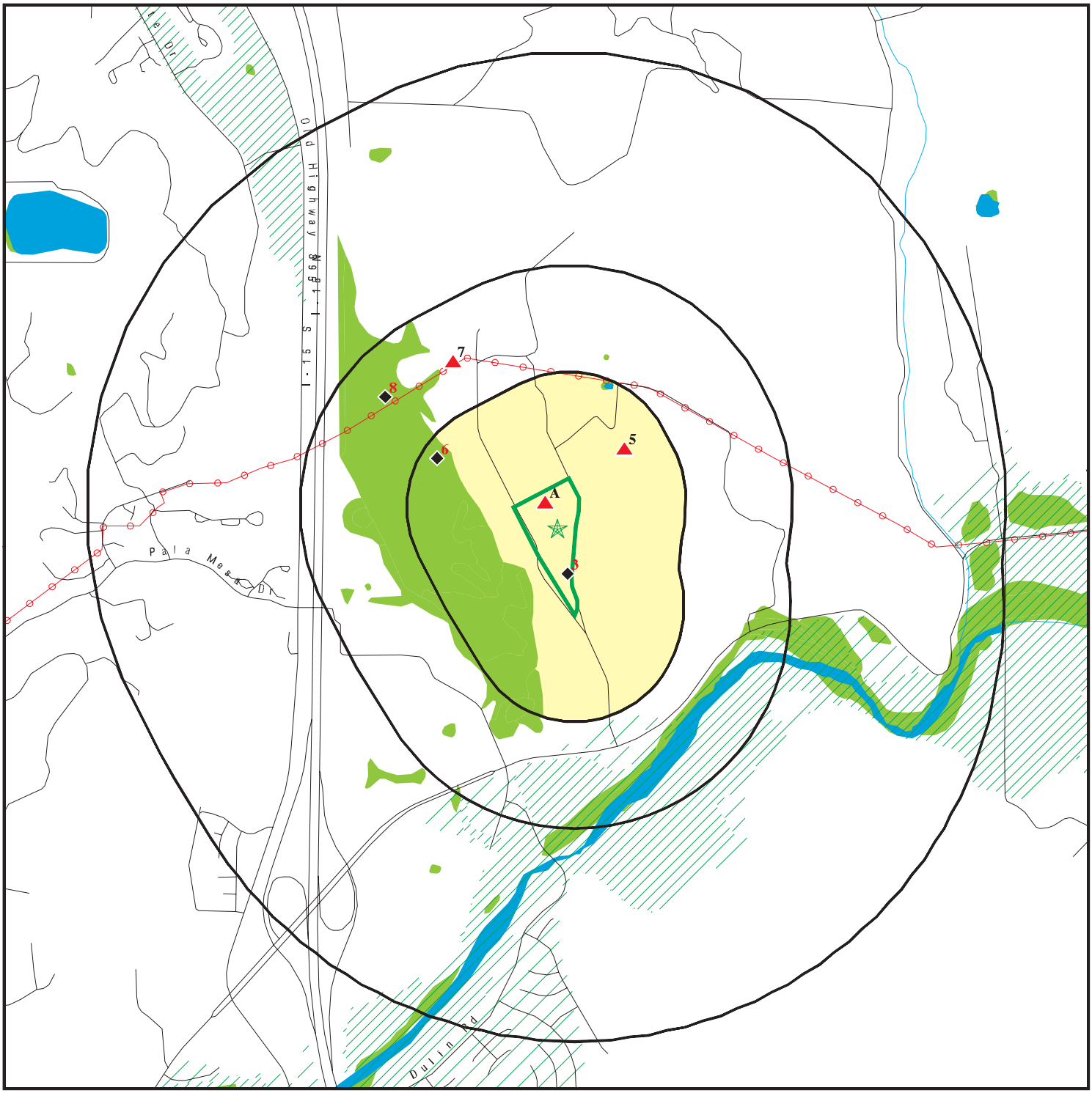
Lower Elevation	Address	Direction / Distance	Map ID	Page
HORSE CREEK RIDGE TR	***HORSE CREEK RANCH RD***	***0 - 1/8 (0.000 mi.)***	***3***	***10***

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 5 records.

Site Name	Database(s)
STATE ROUTE 76 HIGHWAY IMPROVEMENT	FINDS
SDG&E - PALA SUBSTATION	San Diego Co. HMMD
VULCAN MATERIALS CO	San Diego Co. HMMD
HORSE CREEK RIDGE - EQUESTRIAN STA	CPS-SLIC
PROPOSED MEADOWOOD DEVELOPMENT	CPS-SLIC

OVERVIEW MAP - 6947084.2S



0 1/4 1/2 1 Miles

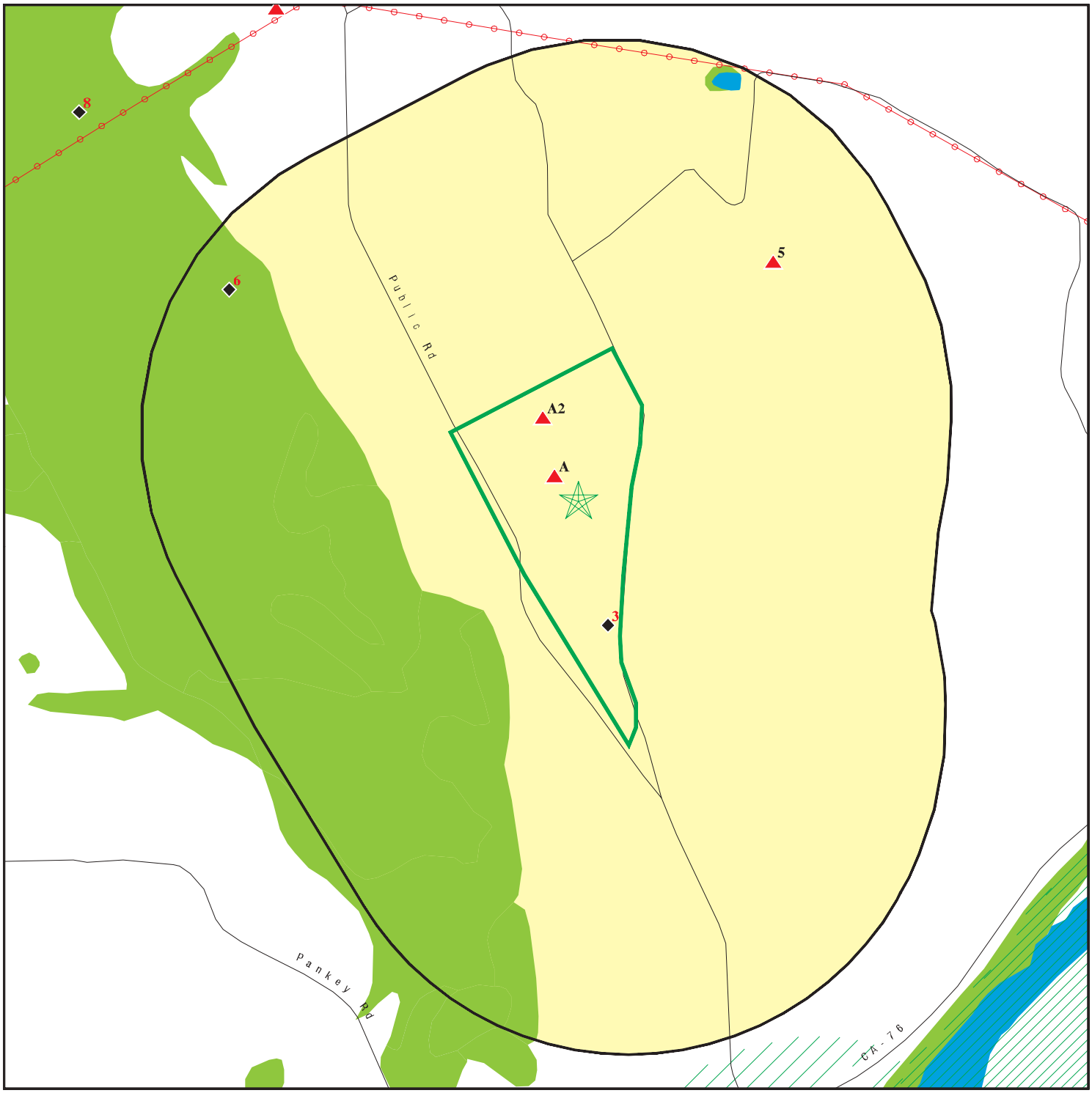
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 5326 Highway 76	CLIENT: Converse Consultants
ADDRESS: 5326 HIGHWAY 76 FALLBROOK CA 92028	CONTACT: Katherine Thomas
LAT/LONG: 33.343882 / 117.149383	INQUIRY #: 6947084.2s
	DATE: April 19, 2022 6:36 pm

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DETAIL MAP - 6947084.2S



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 5326 Highway 76	CLIENT: Converse Consultants
ADDRESS: 5326 HIGHWAY 76 FALLBROOK CA 92028	CONTACT: Katherine Thomas
LAT/LONG: 33.343882 / 117.149383	INQUIRY #: 6947084.2s
	DATE: April 19, 2022 6:36 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		0	0	0	0	NR	0
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
Lists of state- and tribal (Superfund) equivalent sites								
RESPONSE	1.000		0	0	0	0	NR	0
Lists of state- and tribal hazardous waste facilities								
ENVIROSTOR	1.000		1	0	0	0	NR	1
Lists of state and tribal landfills and solid waste disposal facilities								
SWF/LF	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
Lists of state and tribal leaking storage tanks								
LUST	0.500		0	0	0	NR	NR	0
SAN DIEGO CO. SAM	0.500		0	0	1	NR	NR	1
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	2	NR	NR	2
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		1	0	NR	NR	NR	1
CDL	0.001		0	NR	NR	NR	NR	0
San Diego Co. HMMD	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		0	1	NR	NR	NR	1
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
AQUEOUS FOAM	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
HIST UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	1	NR	NR	NR	1
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
ECHO	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		1	NR	NR	NR	NR	1
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
SAN DIEGO CO LOP	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001		1	NR	NR	NR	NR	1
CERS	0.001		3	NR	NR	NR	NR	3
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	7	2	3	0	0	12

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **MEADOWOOD PA2-OPTION** **CERS** **S123510108**
NO ADDRESS - PROPERTY UNDER DEVELOPMENT **N/A**
< 1/8 **FALLBROOK, CA 92028**
1 ft.

Site 1 of 3 in cluster A

Relative: CERS:
Higher
Name: MEADOWOOD PA2-OPTION
Actual: Address: NO ADDRESS - PROPERTY UNDER DEVELOPMENT
305 ft. City,State,Zip: FALLBROOK, CA 92028
Site ID: 339926
CERS ID: 60001970
CERS Description: School Investigation

Affiliation:
Affiliation Type Desc: Lead Project Manager
Entity Name: ASLAM SHAREEF
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: CYPRESS
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Supervisor
Entity Name: SHAHIR HADDAD
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

A2 **PROPOSED MEADOWOOD DEVELOPMENT** **CERS** **S119777548**
5326 PALA ROAD **N/A**
< 1/8 **SAN DIEGO, CA**
1 ft.

Site 2 of 3 in cluster A

Relative: CERS:
Higher
Name: PROPOSED MEADOWOOD DEVELOPMENT
Actual: Address: 5326 PALA ROAD
318 ft. City,State,Zip: SAN DIEGO, CA
Site ID: 417999
CERS ID: T10000010130
CERS Description: Cleanup Program Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: EWAN MOFFAT - SAN DIEGO COUNTY LOP
Entity Title: Not reported
Affiliation Address: P.O. Box 129261
Affiliation City: San Diego
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

3 **HORSE CREEK RIDGE TRACT 5338 PHASE 1** **NPDES S113881021**
HORSE CREEK RANCH RD NORTH OF RTE 76 **CIWQS N/A**
< 1/8 **FALLBROOK, CA 92880** **CERS**
1 ft.

Relative: Lower

Actual: 303 ft.

NPDES:

Name:	HORSE CREEK RIDGE TRACT 5338 PHASE 1
Address:	HORSE CREEK RANCH RD NORTH OF RTE 76
City,State,Zip:	FALLBROOK, CA 92880
Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	9 37C366878
Regulatory Measure Type:	Construction
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Active
Status Date:	06/21/2013
Operator Name:	DR Horton Los Angeles Holding Company
Operator Address:	2280 Wardlow Circle Suite 100
Operator City:	Corona
Operator State:	California
Operator Zip:	92880

NPDES as of 03/2018:

NPDES Number:	CAS000002
Status:	Active
Agency Number:	0
Region:	9
Regulatory Measure ID:	438256
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	9 37C366878
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	06/21/2013
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	DR Horton Los Angeles Holding Company
Discharge Address:	2280 Wardlow Circle Suite 100
Discharge City:	Corona
Discharge State:	California
Discharge Zip:	92880
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported

HORSE CREEK RIDGE TRACT 5338 PHASE 1 (Continued) **S113881021**

Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported
Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	9

HORSE CREEK RIDGE TRACT 5338 PHASE 1 (Continued) **S113881021**

Regulatory Measure ID:	438256
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	9 37C366878
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	06/14/2013
Processed Date:	06/21/2013
Status:	Active
Status Date:	06/21/2013
Place Size:	416
Place Size Unit:	Acres
Contact:	Kurt Hubbell
Contact Title:	Not reported
Contact Phone:	951-751-9767
Contact Phone Ext:	Not reported
Contact Email:	kahubbell@redpinc.com
Operator Name:	DR Horton Los Angeles Holding Company
Operator Address:	2280 Wardlow Circle Suite 100
Operator City:	Corona
Operator State:	California
Operator Zip:	92880
Operator Contact:	Kurt Hubbell
Operator Contact Title:	Not reported
Operator Contact Phone:	951-751-9767
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	kahubbell@redpinc.com
Operator Type:	Private Business
Developer:	DR Horton Los Angeles Holding Company
Developer Address:	2280 Wardlow Circle Suite 100
Developer City:	Corona
Developer State:	California
Developer Zip:	92880
Developer Contact:	Kurt Hubbell
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	N
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	N
Constype Below Ground Ind:	N
Constype Cable Line Ind:	N
Constype Comm Line Ind:	N
Constype Commertial Ind:	N
Constype Electrical Line Ind:	N
Constype Gas Line Ind:	N
Constype Industrial Ind:	N
Constype Other Description:	Not reported
Constype Other Ind:	N

HORSE CREEK RIDGE TRACT 5338 PHASE 1 (Continued) **S113881021**

Constype Recons Ind:	N
Constype Residential Ind:	N
Constype Transport Ind:	N
Constype Utility Description:	Not reported
Constype Utility Ind:	N
Constype Water Sewer Ind:	N
Dir Discharge Uswater Ind:	N
Receiving Water Name:	San Luis Rey River
Certifier:	Barbara Murakami
Certifier Title:	Not reported
Certification Date:	14-JUN-13
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

Name:	HORSE CREEK RIDGE TRACT 5338 PHASE 1
Address:	HORSE CREEK RANCH RD NORTH OF RTE 76
City,State,Zip:	FALLBROOK, CA 92880
Facility Status:	Active
NPDES Number:	CAS000002
Region:	9
Agency Number:	0
Regulatory Measure ID:	438256
Place ID:	Not reported
Order Number:	2009-0009-DWQ
WDID:	9 37C366878
Regulatory Measure Type:	Enrollee
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	06/21/2013
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	2280 Wardlow Circle Suite 100
Discharge Name:	DR Horton Los Angeles Holding Company
Discharge City:	Corona
Discharge State:	California
Discharge Zip:	92880
Status:	Not reported
Status Date:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported

NPDES as of 03/2018:

NPDES Number:	CAS000002
Status:	Active
Agency Number:	0
Region:	9
Regulatory Measure ID:	438256
Order Number:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place ID:	Not reported
WDID:	9 37C366878
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported

HORSE CREEK RIDGE TRACT 5338 PHASE 1 (Continued) **S113881021**

Effective Date Of Regulatory Measure:	06/21/2013
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	DR Horton Los Angeles Holding Company
Discharge Address:	2280 Wardlow Circle Suite 100
Discharge City:	Corona
Discharge State:	California
Discharge Zip:	92880
Received Date:	Not reported
Processed Date:	Not reported
Status:	Not reported
Status Date:	Not reported
Place Size:	Not reported
Place Size Unit:	Not reported
Contact:	Not reported
Contact Title:	Not reported
Contact Phone:	Not reported
Contact Phone Ext:	Not reported
Contact Email:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported
Operator Contact:	Not reported
Operator Contact Title:	Not reported
Operator Contact Phone:	Not reported
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	Not reported
Operator Type:	Not reported
Developer:	Not reported
Developer Address:	Not reported
Developer City:	Not reported
Developer State:	Not reported
Developer Zip:	Not reported
Developer Contact:	Not reported
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	Not reported
Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	Not reported
Constype Below Ground Ind:	Not reported
Constype Cable Line Ind:	Not reported
Constype Comm Line Ind:	Not reported
Constype Commertial Ind:	Not reported
Constype Electrical Line Ind:	Not reported
Constype Gas Line Ind:	Not reported
Constype Industrial Ind:	Not reported
Constype Other Description:	Not reported
Constype Other Ind:	Not reported
Constype Recons Ind:	Not reported
Constype Residential Ind:	Not reported
Constype Transport Ind:	Not reported
Constype Utility Description:	Not reported
Constype Utility Ind:	Not reported
Constype Water Sewer Ind:	Not reported
Dir Discharge Uswater Ind:	Not reported

HORSE CREEK RIDGE TRACT 5338 PHASE 1 (Continued) **S113881021**

Receiving Water Name:	Not reported
Certifier:	Not reported
Certifier Title:	Not reported
Certification Date:	Not reported
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported
NPDES Number:	Not reported
Status:	Not reported
Agency Number:	Not reported
Region:	9
Regulatory Measure ID:	438256
Order Number:	Not reported
Regulatory Measure Type:	Construction
Place ID:	Not reported
WDID:	9 37C366878
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Received Date:	06/14/2013
Processed Date:	06/21/2013
Status:	Active
Status Date:	06/21/2013
Place Size:	416
Place Size Unit:	Acres
Contact:	Kurt Hubbell
Contact Title:	Not reported
Contact Phone:	951-751-9767
Contact Phone Ext:	Not reported
Contact Email:	kahubbell@redpinc.com
Operator Name:	DR Horton Los Angeles Holding Company
Operator Address:	2280 Wardlow Circle Suite 100
Operator City:	Corona
Operator State:	California
Operator Zip:	92880
Operator Contact:	Kurt Hubbell
Operator Contact Title:	Not reported
Operator Contact Phone:	951-751-9767
Operator Contact Phone Ext:	Not reported
Operator Contact Email:	kahubbell@redpinc.com
Operator Type:	Private Business
Developer:	DR Horton Los Angeles Holding Company
Developer Address:	2280 Wardlow Circle Suite 100
Developer City:	Corona
Developer State:	California
Developer Zip:	92880
Developer Contact:	Kurt Hubbell
Developer Contact Title:	Not reported
Constype Linear Utility Ind:	N

HORSE CREEK RIDGE TRACT 5338 PHASE 1 (Continued) **S113881021**

Emergency Phone:	Not reported
Emergency Phone Ext:	Not reported
Constype Above Ground Ind:	N
Constype Below Ground Ind:	N
Constype Cable Line Ind:	N
Constype Comm Line Ind:	N
Constype Commertial Ind:	N
Constype Electrical Line Ind:	N
Constype Gas Line Ind:	N
Constype Industrial Ind:	N
Constype Other Description:	Not reported
Constype Other Ind:	N
Constype Recons Ind:	N
Constype Residential Ind:	N
Constype Transport Ind:	N
Constype Utility Description:	Not reported
Constype Utility Ind:	N
Constype Water Sewer Ind:	N
Dir Discharge Uswater Ind:	N
Receiving Water Name:	San Luis Rey River
Certifier:	Barbara Murakami
Certifier Title:	Not reported
Certification Date:	14-JUN-13
Primary Sic:	Not reported
Secondary Sic:	Not reported
Tertiary Sic:	Not reported

CIWQS:

Name:	HORSE CREEK RIDGE TRACT 5338 PHASE 1
Address:	HORSE CREEK RANCH RD NORTH OF RTE 76
City,State,Zip:	FALLBROOK, CA 92880
Agency:	DR Horton Los Angeles Holding Company
Agency Address:	2280 Wardlow Circle Suite 100, Corona, CA 92880
Place/Project Type:	Construction
SIC/NAICS:	Not reported
Region:	9
Program:	CONSTW
Regulatory Measure Status:	Active
Regulatory Measure Type:	Storm water construction
Order Number:	2009-0009-DWQ
WDID:	9 37C366878
NPDES Number:	CAS000002
Adoption Date:	Not reported
Effective Date:	06/21/2013
Termination Date:	Not reported
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	1
Violations within 5 years:	4
Latitude:	33.342403
Longitude:	-117.148972

HORSE CREEK RIDGE TRACT 5338 PHASE 1 (Continued) **S113881021**

CERS:
Name: HORSE CREEK RIDGE TRACT 5338 PHASE 1
Address: HORSE CREEK RANCH RD NORTH OF RTE 76
City,State,Zip: FALLBROOK, CA 92880
Site ID: 533971
CERS ID: 823519
CERS Description: Construction Storm Water

Violations:
Site ID: 533971
Site Name: Horse Creek Ridge Tract 5338 Phase 1
Violation Date: 11-14-2017
Citation: 2009-0009-DWQ - Construction General Permit
Violation Description: SW - Effluent
Violation Notes: Sediment discharge to SR-76
Violation Division: Water Boards
Violation Program: CONSTW
Violation Source: SMARTS,

Site ID: 533971
Site Name: Horse Creek Ridge Tract 5338 Phase 1
Violation Date: 11-14-2017
Citation: 2009-0009-DWQ - Construction General Permit
Violation Description: SW - Deficient BMP Implementation
Violation Notes: Sediment track out to SR 76
Violation Division: Water Boards
Violation Program: CONSTW
Violation Source: SMARTS,

Site ID: 533971
Site Name: Horse Creek Ridge Tract 5338 Phase 1
Violation Date: 04-06-2017
Citation: 2009-0009-DWQ - Construction General Permit
Violation Description: SW - Deficient BMP Implementation
Violation Notes: ongoing deficient BMPs.
Violation Division: Water Boards
Violation Program: CONSTW
Violation Source: SMARTS,

Site ID: 533971
Site Name: Horse Creek Ridge Tract 5338 Phase 1
Violation Date: 01-20-2017
Citation: 2009-0009-DWQ - Construction General Permit
Violation Description: SW - Deficient BMP Implementation
Violation Notes: lack of BMPs erosion and sediment controls in advance of rain event. Note Offsite Phase 1 is a Risk Level 1 under 366484.
Violation Division: Water Boards
Violation Program: CONSTW
Violation Source: SMARTS,

Evaluation:
Eval General Type: Other/Unknown
Eval Date: 04-06-2017
Violations Found: Yes
Eval Type: Construction Storm Water Compliance Evaluation
Eval Notes: Lack of erosion and sediment controls for Risk Level 2 site
Eval Division: Water Boards

HORSE CREEK RIDGE TRACT 5338 PHASE 1 (Continued) **S113881021**

Eval Program:	CONSTW
Eval Source:	SMARTS,
Eval General Type:	Complaint Inspection
Eval Date:	11-15-2017
Violations Found:	Yes
Eval Type:	Industrial Storm Water Complaint Inspection
Eval Notes:	Substantial track out from site to SR 76 for about half a mile. County inspector informed me it was from Caltrans project when evidence indiocated otherwise.
Eval Division:	Water Boards
Eval Program:	CONSTW
Eval Source:	SMARTS,
Eval General Type:	Other/Unknown
Eval Date:	01-20-2017
Violations Found:	Yes
Eval Type:	Construction Storm Water Compliance Evaluation
Eval Notes:	Lack of BMPs for Risk Level 2 site erosion and sediment controls
Eval Division:	Water Boards
Eval Program:	CONSTW
Eval Source:	SMARTS,

Enforcement Action:

Site ID:	533971
Site Name:	Horse Creek Ridge Tract 5338 Phase 1
Site Address:	HORSE CREEK RANCH RD NORTH OF RTE 76
Site City:	FALLBROOK
Site Zip:	92880
Enf Action Date:	11-16-2017
Enf Action Type:	Staff Enforcement Letter
Enf Action Description:	Staff Enforcement Letter
Enf Action Notes:	Clean up discharge to street
Enf Action Division:	Water Boards
Enf Action Program:	CONSTW
Enf Action Source:	SMARTS,

Affiliation:

Affiliation Type Desc:	Owner/Operator
Entity Name:	DR Horton Los Angeles Holding Company
Entity Title:	Operator
Affiliation Address:	2280 Wardlow Circle Suite 100
Affiliation City:	Corona
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92880
Affiliation Phone:	,

A4 **MEADOWOOD PA2-OPTIONAL SCHOOL SITE** **ENVIROSTOR** **S115779973**
NO ADDRESS - PROPERTY UNDER DEVELOPMENT **SCH** **N/A**
< 1/8 **FALLBROOK, CA 92028**
1 ft.

Site 3 of 3 in cluster A

Relative: Higher
Actual: 305 ft.

ENVIROSTOR:

Name:	MEADOWOOD PA2-OPTIONAL SCHOOL SITE
Address:	NO ADDRESS - PROPERTY UNDER DEVELOPMENT
City,State,Zip:	FALLBROOK, CA 92028
Facility ID:	60001970
Status:	No Further Action
Status Date:	02/23/2017
Site Code:	404894
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	12.7
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Aslam Shareef
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	66, 75
Senate:	38
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	33.34415
Longitude:	-117.1497
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ORCHARD, RESIDENTIAL AREA
Potential COC:	Arsenic Chlordane Total Chromium (1:6 ratio Cr VI:Cr III DDD DDE DDT Endrin Polychlorinated biphenyls (PCBs Silver Tetrachloroethylene (PCE Toxaphene
Confirmed COC:	30001-NO 30004-NO 30005-NO 30006-NO 30007-NO 30008-NO 30010-NO 30022-NO 30018-NO 30021-NO 30023-NO
Potential Description:	SOIL, SV
Alias Name:	404894
Alias Type:	Project Code (Site Code)
Alias Name:	60001970
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	11/20/2014
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	04/21/2015
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo

MEADOWOOD PA2-OPTIONAL SCHOOL SITE (Continued) **S115779973**

Completed Date:	10/24/2017
Comments:	Closeout Form 1554 submitted on 10/20/17 and processed by CRBU on 10/24/17; closeout complete.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Standard Voluntary Agreement
Completed Date:	02/20/2014
Comments:	Fully executed VCA sent (FedEx) to Pardee Homes.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Tech Memo
Completed Date:	11/21/2016
Comments:	DTSC approved the Preliminary Environmental Assessment Technical Memorandum for implementation.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	02/24/2017
Comments:	DTSC approved the PEA with a No Further Action determination
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Fieldwork
Completed Date:	12/20/2016
Comments:	Conducted PEA Field Oversight
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

SCH:

Name:	MEADOWOOD PA2-OPTIONAL SCHOOL SITE
Address:	NO ADDRESS - PROPERTY UNDER DEVELOPMENT
City,State,Zip:	FALLBROOK, CA 92028
Facility ID:	60001970
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	12.7
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Aslam Shareef
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	404894

MEADOWOOD PA2-OPTIONAL SCHOOL SITE (Continued) **S115779973**

Assembly:	66, 75
Senate:	38
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	02/23/2017
Restricted Use:	NO
Funding:	Responsible Party
Latitude:	33.34415
Longitude:	-117.1497
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ORCHARD, RESIDENTIAL AREA
Potential COC:	Arsenic, Chlordane, Total Chromium (1:6 ratio Cr VI:Cr III, DDD, DDE, DDT, Endrin, Polychlorinated biphenyls (PCBs, Silver, Tetrachloroethylene (PCE, Toxaphene
Confirmed COC:	30001-NO, 30004-NO, 30005-NO, 30006-NO, 30007-NO, 30008-NO, 30010-NO, 30022-NO, 30018-NO, 30021-NO, 30023-NO
Potential Description:	SOIL, SV
Alias Name:	404894
Alias Type:	Project Code (Site Code)
Alias Name:	60001970
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	11/20/2014
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	04/21/2015
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	10/24/2017
Comments:	Closeout Form 1554 submitted on 10/20/17 and processed by CRBU on 10/24/17; closeout complete.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Standard Voluntary Agreement
Completed Date:	02/20/2014
Comments:	Fully executed VCA sent (FedEx) to Pardee Homes.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Tech Memo
Completed Date:	11/21/2016
Comments:	DTSC approved the Preliminary Environmental Assessment Technical Memorandum for implementation.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report

MEADOWOOD PA2-OPTIONAL SCHOOL SITE (Continued) **S115779973**

Completed Date:	02/24/2017
Comments:	DTSC approved the PEA with a No Further Action determination
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Fieldwork
Completed Date:	12/20/2016
Comments:	Conducted PEA Field Oversight
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

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5 **EDISON CONSTRUCTION INC.** **US MINES** **1018136863**
NE **N/A**
1/8-1/4 **SAN BERNARDINO (County), CA**
0.148 mi.
779 ft.

Relative: **Higher**

Actual: **427 ft.**

US MINES:

Sic Code(s):	144200
Sic Code(s):	000000
Sic Code(s):	000000
Sic Code(s):	000000
Sic Code(s):	000000
Sic Code(s):	000000
Mine ID:	0405902
Entity Name:	RMQ PLANT 1
Company:	EDISON CONSTRUCTION INC.
Status:	Permanently Abandoned
Status Date:	20170101
Operation Class:	2
Number of Shops:	0
Number of Plants:	0
Latitude Degree:	33
Longitude Degree:	117
Latitude Minute:	20
Latitude Seconds:	48
Longitude Minutes:	08
Longitude Seconds:	48
Number of Pits:	000

6 PALOMAR COMMUNITY COLLEGE NORTH EDUCATION CENTER **San Diego Co. HMMD** **S123522055**
WNW 35090 HORSE RANCH CREEK RD **CERS HAZ WASTE** **N/A**
1/8-1/4 FALLBROOK, CA 92028 **CERS**
0.213 mi. **HWTS**
1122 ft.

Relative:
Lower

Actual:
288 ft.

HMMD SAN DIEGO:

Name:	PALOMAR COMMUNITY COLLEGE NORTH EDUCATION CENTER
Address:	35090 HORSE RANCH CREEK RD
City,State,Zip:	FALLBROOK, CA 92028
Permit Number:	Not reported
Business Type:	Not reported
EPA Id Number:	CAL000437129
APN:	Not reported
Last HMMD Inspection:	Not reported
Facility Telephone:	7607441150
Permit Status:	Permit Renewed
Permit Expiration:	Not reported
Date Last Updated:	09/10/2021
Facility Owner:	Not reported
Facility Mailing Address:	1140 West Mission RD, San Marcos, CA 92069
Facility Mailing City:	Not reported
Facility Mailing State:	Not reported
Facility Mailing Zip:	Not reported
UST Owner:	N
Handle Regulated Hazmat:	Not reported
Own Or Operate UST:	Not reported
Subject To APSA:	Not reported
Generate Haz Waste:	Y
Treat Haz Waste:	N
Generate Medical Waste:	Not reported

Inspection Violation:

Record ID:	DEH2018-HUPFP-004627
Permit Status:	Permit Renewed
Active Permit:	Y
Facility Id Number:	37-000-004627
Program Element:	Hazardous Waste Generator
Inspection Type:	Initial Inspection
Inspection Number:	6063267
Return To Compliance Date:	2019-03-05T00:00:00.000
Nov:	No
Violation Classification:	Class II
Underground Storage Tank Id:	Not reported
Container/Tank Id:	Not reported
Last Update:	2021-09-10T11:34:50.000
Inspection Date:	2019-01-09T00:00:00.000
Violation Code:	HMD0131 Unified Program Facility Permit not obtained &/or maintained for the generation of hazardous waste. SDCC 68.905

Record ID:	DEH2018-HUPFP-004627
Permit Status:	Permit Renewed
Active Permit:	Y
Facility Id Number:	37-000-004627
Program Element:	Medical Waste
Inspection Type:	Initial Inspection
Inspection Number:	6063267
Return To Compliance Date:	2019-03-05T00:00:00.000
Nov:	No
Violation Classification:	Class II

PALOMAR COMMUNITY COLLEGE NORTH EDUCATION CENTER (Continued) **S123522055**

Underground Storage Tank Id: Not reported
Container/Tank Id: Not reported
Last Update: 2021-09-10T11:34:50.000
Inspection Date: 2019-01-09T00:00:00.000
Violation Code: HMD4201 UPF Permit not obtained. HSC 117705; SDCC 68.905, 68.906, 68.1202

Waste and Materials:

Record ID: DEH2018-HUPFP-004627
Permit Status: Permit Renewed
Active Permit: Y
Child Record Id: DEH2020-HWAST-0226144
Trade Secret: N
Hazardous Material Type: Not reported
Last Updated: 2021-09-10T11:34:55.000
Chemical Name: Waste Flammable Liquid,Toxic, Corrosive, N.O.S. (Lab Pack - Methanol, Hydrochloric Acid)
Common Name: Lab Pack - Methanol, Hydrochloric Acid
Case Number: Not reported

Record ID: DEH2018-HUPFP-004627
Permit Status: Permit Renewed
Active Permit: Y
Child Record Id: DEH2019-HWAST-0177707
Trade Secret: N
Hazardous Material Type: Not reported
Last Updated: 2020-03-03T01:24:33.000
Chemical Name: Waste Corrosive Liquids, N.O.S., Flammable, N.O.S. (Lab Pack)
Common Name: Waste Corrosive Liquids, N.O.S., Flammable, N.O.S. (Lab Pack)
Case Number: Not reported

Record ID: DEH2018-HUPFP-004627
Permit Status: Permit Renewed
Active Permit: Y
Child Record Id: DEH2019-HWAST-0177706
Trade Secret: N
Hazardous Material Type: Not reported
Last Updated: 2020-03-03T01:24:33.000
Chemical Name: REGULATED MEDICAL WASTE, N.O.S.
Common Name: REGULATED MEDICAL WASTE, N.O.S.
Case Number: Not reported

Record ID: DEH2018-HUPFP-004627
Permit Status: Permit Renewed
Active Permit: Y
Child Record Id: DEH2019-HWAST-0177708
Trade Secret: N
Hazardous Material Type: Not reported
Last Updated: 2020-03-03T01:24:33.000
Chemical Name: Waste Flammable Liquids, N.O.S. (Lab Pack)
Common Name: Waste Flammable Liquids, N.O.S. (Lab Pack)
Case Number: Not reported

Record ID: DEH2018-HUPFP-004627
Permit Status: Permit Renewed
Active Permit: Y
Child Record Id: DEH2019-HWAST-0177709
Trade Secret: N

PALOMAR COMMUNITY COLLEGE NORTH EDUCATION CENTER (Continued) **S123522055**

Hazardous Material Type: Not reported
Last Updated: 2020-03-03T01:24:33.000
Chemical Name: Waste Oxidizing Liquid, Toxic, N.O.S., (Lab Pack)
Common Name: Waste Oxidizing Liquid, Toxic, N.O.S., (Lab Pack)
Case Number: Not reported

Record ID: DEH2018-HUPFP-004627
Permit Status: Permit Renewed
Active Permit: Y
Child Record Id: DEH2019-HWAST-0177710
Trade Secret: N
Hazardous Material Type: Not reported
Last Updated: 2020-03-03T01:24:33.000
Chemical Name: Waste Nitric Acid (Lab Pack)
Common Name: Waste Nitric Acid (Lab Pack)
Case Number: Not reported

Record ID: DEH2018-HUPFP-004627
Permit Status: Permit Renewed
Active Permit: Y
Child Record Id: DEH2019-HWAST-0177711
Trade Secret: N
Hazardous Material Type: Not reported
Last Updated: 2020-03-03T01:24:33.000
Chemical Name: Waste Corrosive Liquid, Basic, Inorganic, N.O.S. (Lab Pack)
Common Name: Waste Corrosive Liquid, Basic, Inorganic, N.O.S. (Lab Pack)
Case Number: Not reported

Record ID: DEH2018-HUPFP-004627
Permit Status: Permit Renewed
Active Permit: Y
Child Record Id: DEH2019-HWAST-0177712
Trade Secret: N
Hazardous Material Type: Not reported
Last Updated: 2020-03-03T01:24:33.000
Chemical Name: Waste Toxic Solids, Organic, N.O.S., (Lab Pack)
Common Name: Waste Toxic Solids, Organic, N.O.S., (Lab Pack)
Case Number: Not reported

Record ID: DEH2018-HUPFP-004627
Permit Status: Permit Renewed
Active Permit: Y
Child Record Id: DEH2020-HWAST-0226138
Trade Secret: N
Hazardous Material Type: Not reported
Last Updated: 2021-09-10T11:34:55.000
Chemical Name: REGULATED MEDICAL WASTE, N.O.S.
Common Name: REGULATED MEDICAL WASTE, N.O.S.
Case Number: Not reported

Record ID: DEH2018-HUPFP-004627
Permit Status: Permit Renewed
Active Permit: Y
Child Record Id: DEH2020-HWAST-0226139
Trade Secret: N
Hazardous Material Type: Not reported
Last Updated: 2021-09-10T11:34:55.000

PALOMAR COMMUNITY COLLEGE NORTH EDUCATION CENTER (Continued) **S123522055**

Chemical Name: Waste Corrosive Liquids, Flammable, N.O.S. (Lab Pack - Sulfuric Acid)
Common Name: Lab Pack - Sulfuric Acid
Case Number: Not reported

Record ID: DEH2018-HUPFP-004627
Permit Status: Permit Renewed
Active Permit: Y
Child Record Id: DEH2020-HWAST-0226140
Trade Secret: N
Hazardous Material Type: Not reported
Last Updated: 2021-09-10T11:34:55.000
Chemical Name: Waste Flammable Liquids, N.O.S. (Lab Pack - Toluene, Hexane)
Common Name: Lab Pack - Toluene, Hexane
Case Number: Not reported

Record ID: DEH2018-HUPFP-004627
Permit Status: Permit Renewed
Active Permit: Y
Child Record Id: DEH2020-HWAST-0226141
Trade Secret: N
Hazardous Material Type: Not reported
Last Updated: 2021-09-10T11:34:55.000
Chemical Name: Waste Oxidizing Liquid, Toxic, N.O.S., (Lab Pack - Lead Nitrate)
Common Name: Lab Pack - Lead Nitrate
Case Number: Not reported

Record ID: DEH2018-HUPFP-004627
Permit Status: Permit Renewed
Active Permit: Y
Child Record Id: DEH2020-HWAST-0226142
Trade Secret: N
Hazardous Material Type: Not reported
Last Updated: 2021-09-10T11:34:55.000
Chemical Name: Waste Nitric Acid (Lab Pack)
Common Name: Waste Nitric Acid (Lab Pack)
Case Number: Not reported

Record ID: DEH2018-HUPFP-004627
Permit Status: Permit Renewed
Active Permit: Y
Child Record Id: DEH2020-HWAST-0226145
Trade Secret: N
Hazardous Material Type: Not reported
Last Updated: 2021-09-10T11:34:55.000
Chemical Name: Waste Corrosive Liquids, N.O.S. (Lab Pack - Sodium Hydroxide, Potassium Hydroxide)
Common Name: Lab Pack - Sodium Hydroxide, Potassium Hydroxide
Case Number: Not reported

Record ID: DEH2018-HUPFP-004627
Permit Status: Permit Renewed
Active Permit: Y
Child Record Id: DEH2020-HWAST-0226146
Trade Secret: N
Hazardous Material Type: Not reported
Last Updated: 2021-09-10T11:34:55.000
Chemical Name: Waste Corrosive Liquids, Basic, Inorganic, N.O.S. (Lab Pack - Sodium Hydroxide)
Common Name: Sodium Hydroxide

PALOMAR COMMUNITY COLLEGE NORTH EDUCATION CENTER (Continued) **S123522055**

Case Number: Not reported

Record ID: DEH2018-HUPFP-004627
Permit Status: Permit Renewed
Active Permit: Y
Child Record Id: DEH2020-HWAST-0226149
Trade Secret: N
Hazardous Material Type: Not reported
Last Updated: 2021-09-10T11:34:55.000
Chemical Name: Waste Oxidizing Liquid, Corrosive, N.O.S. (Lab Pack - Silver Nitrate, Hydrochloric Acid)
Common Name: Lab Pack - Silver Nitrate, Hydrochloric Acid
Case Number: Not reported

Record ID: DEH2018-HUPFP-004627
Permit Status: Permit Renewed
Active Permit: Y
Child Record Id: DEH2020-HWAST-0226150
Trade Secret: N
Hazardous Material Type: Not reported
Last Updated: 2021-09-10T11:34:55.000
Chemical Name: Waste Flammable Liquids, Corrosive, N.O.S. (Lab Pack - Ethanol, Sodium Hydroxide)
Common Name: Lab Pack - Ethanol, Sodium Hydroxide
Case Number: Not reported

Record ID: DEH2018-HUPFP-004627
Permit Status: Permit Renewed
Active Permit: Y
Child Record Id: DEH2020-HWAST-0226151
Trade Secret: N
Hazardous Material Type: Not reported
Last Updated: 2021-09-10T11:34:55.000
Chemical Name: Waste Corrosive Liquids, N.O.S. (Lab Pack - Nitric Acid, Sulfuric Acid)
Common Name: Lab Pack - Nitric Acid, Sulfuric Acid
Case Number: Not reported

Record ID: DEH2018-HUPFP-004627
Permit Status: Permit Renewed
Active Permit: Y
Child Record Id: DEH2020-HWAST-0226152
Trade Secret: N
Hazardous Material Type: Not reported
Last Updated: 2021-09-10T11:34:55.000
Chemical Name: Waste Toxic Solid, Inorganic, N.O.S. (Lab Pack - Silver Chloride, Debris)
Common Name: Lab Pack - Silver Chloride, Debris
Case Number: Not reported

Record ID: DEH2018-HUPFP-004627
Permit Status: Permit Renewed
Active Permit: Y
Child Record Id: DEH2020-HWAST-0226143
Trade Secret: N
Hazardous Material Type: Not reported
Last Updated: 2021-09-10T11:34:55.000
Chemical Name: Waste Corrosive Liquids, Oxidizing, N.O.S. (Lab Pack - Nitric Acid, Silver Nitrate)
Common Name: Lab Pack - Nitric Acid, Silver Nitrate
Case Number: Not reported

PALOMAR COMMUNITY COLLEGE NORTH EDUCATION CENTER (Continued) **S123522055**

Record ID:	DEH2018-HUPFP-004627
Permit Status:	Permit Renewed
Active Permit:	Y
Child Record Id:	DEH2020-HWAST-0226147
Trade Secret:	N
Hazardous Material Type:	Not reported
Last Updated:	2021-09-10T11:34:55.000
Chemical Name:	Waste Toxic Solids, Organic, N.O.S. (Lab Pack - Phenol)
Common Name:	Lab Pack - Phenol
Case Number:	Not reported

Record ID:	DEH2018-HUPFP-004627
Permit Status:	Permit Renewed
Active Permit:	Y
Child Record Id:	DEH2020-HWAST-0226148
Trade Secret:	N
Hazardous Material Type:	Not reported
Last Updated:	2021-09-10T11:34:55.000
Chemical Name:	Waste Flammable Liquids, N.O.S. (Lab Pack - Hexane, Toluene)
Common Name:	Lab Pack - Hexane, Toluene
Case Number:	Not reported

CERS HAZ WASTE:

Name:	PALOMAR COMMUNITY COLLEGE NORTH EDUCATION CENTER
Address:	35090 HORSE RANCH CREEK RD
City,State,Zip:	FALLBROOK, CA 92028
Site ID:	443078
CERS ID:	10772095
CERS Description:	Hazardous Waste Generator

CERS:

Name:	PALOMAR COMMUNITY COLLEGE NORTH EDUCATION CENTER
Address:	35090 HORSE RANCH CREEK RD
City,State,Zip:	FALLBROOK, CA 92028
Site ID:	443078
CERS ID:	10772095
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	443078
Site Name:	Palomar Community College North Education Center
Violation Date:	01-09-2019
Citation:	HSC 6.5 Multiple - California Health and Safety Code, Chapter 6.5, Section(s) Multiple
Violation Description:	Hazardous Waste Generator Program - Administration/Documentation - General
Violation Notes:	Returned to compliance on 03/05/2019. Inspection Sequence ID:6063267;Violation:HMD0131 Unified Program Facility Permit not obtained &/or maintained for the generation of hazardous waste. SDCC 68.905
Violation Division:	San Diego County Department of Env Health
Violation Program:	HW
Violation Source:	CERS,

Evaluation:

PALOMAR COMMUNITY COLLEGE NORTH EDUCATION CENTER (Continued) **S123522055**

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-09-2019
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Inspector: Kieu Bridget Inspection ID:6063267
Eval Division: San Diego County Department of Env Health
Eval Program: HW
Eval Source: CERS,

Coordinates:
Site ID: 443078
Facility Name: Palomar Community College North Education Center
Env Int Type Code: HMBP
Program ID: 10772095
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.,
Latitude: 33.346340
Longitude: -117.154260

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: San Diego County Env Health Qlty
Entity Title: Not reported
Affiliation Address: PO Box 129261
Affiliation City: San Diego
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92112-9261
Affiliation Phone: (858) 505-6880,

Affiliation Type Desc: Document Preparer
Entity Name: Derrick Johnson
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Legal Owner
Entity Name: PALOMAR COMMUNITY COLLEGE
Entity Title: Not reported
Affiliation Address: 1140 West Mission RD
Affiliation City: San MArcos
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 92069
Affiliation Phone: (760) 744-1150,

Affiliation Type Desc: Property Owner
Entity Name: Palomar Community College District
Entity Title: Not reported
Affiliation Address: 1140 West Mission RD
Affiliation City: San Marcos
Affiliation State: CA

PALOMAR COMMUNITY COLLEGE NORTH EDUCATION CENTER (Continued) **S123522055**

Affiliation Country: United States
Affiliation Zip: 92069
Affiliation Phone: (760) 744-1150,

Affiliation Type Desc: Identification Signer
Entity Name: Derrick Johnson
Entity Title: Environmental Health & Safety Supervisor
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Environmental Contact
Entity Name: Derrick Johnson
Entity Title: Not reported
Affiliation Address: 1140 West Mission RD
Affiliation City: San Marcos
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92069
Affiliation Phone: ,

Affiliation Type Desc: Parent Corporation
Entity Name: PALOMAR COMMUNITY COLLEGE
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 1140 West Mission Road
Affiliation City: San Marcos
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92069
Affiliation Phone: ,

Affiliation Type Desc: Operator
Entity Name: PALOMAR COMMUNITY COLLEGE
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (760) 744-1150,

HWTS:
Name: PALOMAR COMMUNITY COLLEGE

PALOMAR COMMUNITY COLLEGE NORTH EDUCATION CENTER (Continued) **S123522055**

Address:	35090 HORSE RANCH CREEK RD
Address 2:	Not reported
City,State,Zip:	FALLBROOK, CA 92028
EPA ID:	CAL000437129
Inactive Date:	Not reported
Create Date:	06/22/2018
Last Act Date:	03/22/2021
Mailing Name:	Not reported
Mailing Address:	1140 W MISSION RD
Mailing Address 2:	Not reported
Mailing City,State,Zip:	SAN MARCOS, CA 920691415
Owner Name:	PALOMAR COMMUNITY COLLEGE
Owner Address:	1140 W MISSION RD
Owner Address 2:	Not reported
Owner City,State,Zip:	SAN MARCOS, CA 920691415
Contact Name:	DERRICK JOHNSON/SUPERVISOR
Contact Address:	1140 W MISSION RD
Contact Address 2:	Not reported
City,State,Zip:	SAN MARCOS, CA 92069

NAICS:

EPA ID:	CAL000437129
Create Date:	2018-06-22 08:58:47.013
NAICS Code:	611210
NAICS Description:	Junior Colleges
Issued EPA ID Date:	2018-06-22 08:58:47.01300
Inactive Date:	Not reported
Facility Name:	PALOMAR COMMUNITY COLLEGE
Facility Address:	35090 HORSE RANCH CREEK RD
Facility Address 2:	Not reported
Facility City:	FALLBROOK
Facility County:	Not reported
Facility State:	CA
Facility Zip:	92028

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7 **RAINBOW FARM, LLC** **SAN DIEGO CO. SAM** **S109118209**
NNW **0 PALA RD** **CPS-SLIC** **N/A**
1/4-1/2 **FALLBROOK, CA 92028** **CERS**
0.369 mi.
1947 ft.

Relative:
Higher

Actual:
310 ft.

SAN DIEGO CO. SAM:

Name:	RAINBOW FARM, LLC
Address:	0 PALA RD
City,State,Zip:	FALLBROOK, CA 92028
Case Number:	H39682-001
Agency:	DEH Site Assessment & Mitigation
Funding:	**Private - VAP**
Facility Type:	Soils Only
Facility Status:	Preliminary Assessment
Date:	12/21/2005
Date Began:	Not reported

CPS-SLIC:

Name:	RAINBOW FARM, LLC
Address:	0 PALA RD
City,State,Zip:	FALLBROOK, CA 92028

RAINBOW FARM, LLC (Continued) **S109118209**

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	02/04/2013
Global Id:	T06019763926
Lead Agency:	SAN DIEGO COUNTY LOP
Lead Agency Case Number:	H39682-001
Latitude:	33.3496390074061
Longitude:	-117.153606261292
Case Type:	Cleanup Program Site
Case Worker:	EB
Local Agency:	SAN DIEGO COUNTY LOP
RB Case Number:	Not reported
File Location:	Local Agency
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Refer to "Site Maps/Documents" tab for Closure Letter.

Click here to access the California GeoTracker records for this facility:

CERS:

Name:	RAINBOW FARM, LLC
Address:	0 PALA RD
City,State,Zip:	FALLBROOK, CA 92028
Site ID:	233009
CERS ID:	T06019763926
CERS Description:	Cleanup Program Site

Affiliation:

Affiliation Type Desc:	Local Agency Caseworker
Entity Name:	Ellen Beacon - SAN DIEGO COUNTY LOP
Entity Title:	Not reported
Affiliation Address:	P.O. Box 129261
Affiliation City:	San Diego
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

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8 **HORSE RANCH CREEK ROAD** **CPS-SLIC** **S110656441**
NW **0 HORSE RANCH CREEK ROAD** **CERS** **N/A**
1/4-1/2 **FALLBROOK, CA 92028**
0.396 mi.
2090 ft.

Relative:
Lower

Actual:
294 ft.

CPS-SLIC:

Name:	HORSE RANCH CREEK ROAD
Address:	0 HORSE RANCH CREEK ROAD
City,State,Zip:	FALLBROOK, CA 92028
Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	03/04/2011
Global Id:	T10000002606
Lead Agency:	SAN DIEGO COUNTY LOP
Lead Agency Case Number:	H39756-001
Latitude:	33.3484187559708
Longitude:	-117.156357765198
Case Type:	Cleanup Program Site

HORSE RANCH CREEK ROAD (Continued) **S110656441**

Case Worker:	EB
Local Agency:	SAN DIEGO COUNTY LOP
RB Case Number:	Not reported
File Location:	Not reported
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	The case was opened because Palomar College proposed building a road in a former agricultural area where pesticide residues may have been present in the soil. A former VAP case was opened for the entire property; however, the responsible party did not complete the investigation and withdrew from the VAP program. The College sought DEH oversight for the investigation of pesticide residues in soil in the proposed Horse Creek Road right-of-way. Sixteen soil samples were collected from the former agricultural areas in the right-of way and analyzed for organochlorine pesticides. The College collected an additional three samples from an offsite area to be used as a borrow area . Chlordane was detected in two samples from the right-of-way at concentrations below the California Human Health Screening Levels (CHHSLs) for residential soils. Other organochlorine pesticides were not detected in any of the samples. The consultant requests no further action for the right-of-way based on the low level of pesticides detected and DEH concurs with this conclusion. DEH stipulates that additional sampling should be conducted before the rest of the property is developed.

Click here to access the California GeoTracker records for this facility:

CERS:

Name:	HORSE RANCH CREEK ROAD
Address:	0 HORSE RANCH CREEK ROAD
City,State,Zip:	FALLBROOK, CA 92028
Site ID:	198872
CERS ID:	T10000002606
CERS Description:	Cleanup Program Site

Affiliation:

Affiliation Type Desc:	Local Agency Caseworker
Entity Name:	Ellen Beacon - SAN DIEGO COUNTY LOP
Entity Title:	Not reported
Affiliation Address:	P.O. Box 129261
Affiliation City:	San Diego
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	,

Count: 5 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BONSALL	1023265185	STATE ROUTE 76 HIGHWAY IMPROVEMENT	76	92028	FINDS
FALLBROOK	S127815556	HORSE CREEK RIDGE - EQUESTRIAN STA	SE CORNER OF PANKEY RD AND PAN	92028	CPS-SLIC
FALLBROOK	S125952655	PROPOSED MEADOWOOD DEVELOPMENT	5326 PALA ROAD	92028	CPS-SLIC
PALA	S110498377	SDG&E - PALA SUBSTATION	HWY 76 & PALA DEL NORTE 4 MI E	92059	San Diego Co. HMMD
PALA	S106060104	VULCAN MATERIALS CO	HWY 76 MAGEE RD	92059	San Diego Co. HMMD

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 04/01/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 10
Telephone 206-553-8665

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 04/01/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Lists of Federal Delisted NPL sites

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 04/01/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 06/24/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/01/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 04/01/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 04/01/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: Quarterly

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 02/28/2022
Date Data Arrived at EDR: 03/02/2022
Date Made Active in Reports: 03/17/2022
Number of Days to Update: 15

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 04/06/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 02/28/2022
Date Data Arrived at EDR: 03/02/2022
Date Made Active in Reports: 03/17/2022
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/06/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

Lists of Federal RCRA generators

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/28/2022
Date Data Arrived at EDR: 03/02/2022
Date Made Active in Reports: 03/17/2022
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/06/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 02/28/2022
Date Data Arrived at EDR: 03/02/2022
Date Made Active in Reports: 03/17/2022
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/06/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/28/2022
Date Data Arrived at EDR: 03/02/2022
Date Made Active in Reports: 03/17/2022
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/06/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 11/15/2021
Date Data Arrived at EDR: 11/16/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 84

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/07/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 11/19/2021
Date Data Arrived at EDR: 11/19/2021
Date Made Active in Reports: 02/14/2022
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/23/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 11/19/2021
Date Data Arrived at EDR: 11/19/2021
Date Made Active in Reports: 02/14/2022
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/23/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 03/01/2022
Date Made Active in Reports: 03/10/2022
Number of Days to Update: 9

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 03/22/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

Lists of state- and tribal (Superfund) equivalent sites

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 01/24/2022
Date Data Arrived at EDR: 01/25/2022
Date Made Active in Reports: 04/13/2022
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/25/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Quarterly

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 01/24/2022
Date Data Arrived at EDR: 01/25/2022
Date Made Active in Reports: 04/13/2022
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/25/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Quarterly

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/08/2021
Date Data Arrived at EDR: 11/09/2021
Date Made Active in Reports: 01/28/2022
Number of Days to Update: 80

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/08/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Quarterly

Lists of state and tribal leaking storage tanks

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/28/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 06/22/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 90
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

Lists of state and tribal registered storage tanks

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 10/14/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 02/01/2022
Number of Days to Update: 88
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/04/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Semi-Annually

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases

UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 12/01/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 03/02/2022
Number of Days to Update: 85

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 03/10/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/14/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/06/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 02/09/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 06/22/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

Lists of state and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142
Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 03/16/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 01/24/2022
Date Data Arrived at EDR: 01/25/2022
Date Made Active in Reports: 04/13/2022
Number of Days to Update: 78
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/25/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Quarterly

Lists of state and tribal brownfield sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 12/15/2021
Date Data Arrived at EDR: 12/16/2021
Date Made Active in Reports: 03/03/2022
Number of Days to Update: 77
Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 03/21/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 02/23/2022
Date Data Arrived at EDR: 03/10/2022
Date Made Active in Reports: 03/10/2022
Number of Days to Update: 0
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/15/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 09/14/2021
Date Data Arrived at EDR: 11/11/2021
Date Made Active in Reports: 11/23/2021
Number of Days to Update: 12

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/14/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 11/16/2021
Date Data Arrived at EDR: 11/18/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/23/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 01/24/2022
Date Data Arrived at EDR: 01/25/2022
Date Made Active in Reports: 04/13/2022
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/25/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 04/18/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 01/18/2022
Date Data Arrived at EDR: 01/19/2022
Date Made Active in Reports: 04/11/2022
Number of Days to Update: 82

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 01/19/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 11/16/2021
Date Data Arrived at EDR: 11/18/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/23/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Quarterly

AQUEOUS FOAM: Former Fire Training Facility Assessments Listing

Airports shown on this list are those believed to use Aqueous Film Forming Foam (AFFF), and certified by the Federal Aviation Administration (FAA) under Title 14, Code of Federal Regulations (CFR), Part 139 (14 CFR Part 139). This list was created by SWRCB using information available from the FAA. Location points shown are from the latitude and longitude listed on the FAA airport master record.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 12/10/2021
Date Made Active in Reports: 02/25/2022
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-341-5455
Last EDR Contact: 03/11/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing
Aboveground storage tank sites

Date of Government Version: 11/04/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 80

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CERS TANKS: California Environmental Reporting System (CERS) Tanks
List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 01/18/2022
Date Data Arrived at EDR: 01/19/2022
Date Made Active in Reports: 04/11/2022
Number of Days to Update: 82

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/19/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Quarterly

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 02/24/2022
Date Data Arrived at EDR: 02/25/2022
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 12

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 04/01/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 11/30/2021
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/16/2022
Number of Days to Update: 78

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/15/2021
Date Data Arrived at EDR: 12/16/2021
Date Made Active in Reports: 03/10/2022
Number of Days to Update: 84

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/21/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 01/19/2022
Date Made Active in Reports: 04/08/2022
Number of Days to Update: 79

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/19/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 02/28/2022
Date Data Arrived at EDR: 03/02/2022
Date Made Active in Reports: 03/17/2022
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/06/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 10/26/2021
Date Data Arrived at EDR: 11/16/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 84

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 02/15/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 06/07/2021
Date Data Arrived at EDR: 07/13/2021
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 239

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/12/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/05/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/08/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 12/13/2021
Date Data Arrived at EDR: 12/17/2021
Date Made Active in Reports: 03/17/2022
Number of Days to Update: 90

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 03/21/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 02/01/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/03/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/17/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/18/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 08/14/2020
Date Made Active in Reports: 11/04/2020
Number of Days to Update: 82

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/18/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 01/19/2022
Date Data Arrived at EDR: 01/19/2022
Date Made Active in Reports: 04/11/2022
Number of Days to Update: 82

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/19/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 04/01/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 10/20/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 11/12/2021
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/18/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/25/2022
Number of Days to Update: 22

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 04/01/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 01/20/2022
Date Data Arrived at EDR: 01/20/2022
Date Made Active in Reports: 03/25/2022
Number of Days to Update: 64

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/08/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 03/31/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/24/2021
Date Made Active in Reports: 11/19/2021
Number of Days to Update: 87

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 04/18/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 84
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 02/04/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 03/28/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/08/2022
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 01/14/2022
Date Made Active in Reports: 03/25/2022
Number of Days to Update: 70

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/04/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 03/02/2022
Date Made Active in Reports: 03/25/2022
Number of Days to Update: 23

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/05/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 07/26/2021
Date Data Arrived at EDR: 07/27/2021
Date Made Active in Reports: 10/22/2021
Number of Days to Update: 87

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 01/31/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 05/03/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 03/21/2022
Date Data Arrived at EDR: 03/22/2022
Date Made Active in Reports: 03/25/2022
Number of Days to Update: 3

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 03/14/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/02/2021
Date Data Arrived at EDR: 11/22/2021
Date Made Active in Reports: 02/14/2022
Number of Days to Update: 84

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/23/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 12/14/2021
Date Data Arrived at EDR: 12/15/2021
Date Made Active in Reports: 03/10/2022
Number of Days to Update: 85

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 03/04/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 11/04/2021
Date Data Arrived at EDR: 11/22/2021
Date Made Active in Reports: 02/25/2022
Number of Days to Update: 95

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/11/2022
Date Made Active in Reports: 02/14/2022
Number of Days to Update: 34

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 04/12/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 01/01/2022
Date Data Arrived at EDR: 01/04/2022
Date Made Active in Reports: 01/10/2022
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 04/05/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 02/22/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/15/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/01/2022
Number of Days to Update: 78

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/16/2021
Date Data Arrived at EDR: 12/16/2021
Date Made Active in Reports: 03/03/2022
Number of Days to Update: 77

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 03/21/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64

Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 02/08/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 08/27/2021
Date Data Arrived at EDR: 09/01/2021
Date Made Active in Reports: 11/19/2021
Number of Days to Update: 79

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/07/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Annually

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 11/17/2021
Date Data Arrived at EDR: 11/18/2021
Date Made Active in Reports: 02/07/2022
Number of Days to Update: 81

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 11/29/2021
Date Data Arrived at EDR: 11/29/2021
Date Made Active in Reports: 02/14/2022
Number of Days to Update: 77

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Varies

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 06/10/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 78

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 03/18/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 11/10/2021
Date Data Arrived at EDR: 11/11/2021
Date Made Active in Reports: 02/03/2022
Number of Days to Update: 84

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 03/03/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 01/13/2022
Date Data Arrived at EDR: 01/14/2022
Date Made Active in Reports: 04/08/2022
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 04/18/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/18/2021
Date Data Arrived at EDR: 11/19/2021
Date Made Active in Reports: 02/07/2022
Number of Days to Update: 80

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/08/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 11/15/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/03/2022
Number of Days to Update: 80

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 02/15/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/15/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/03/2022
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/15/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/03/2022
Date Data Arrived at EDR: 01/04/2022
Date Made Active in Reports: 03/18/2022
Number of Days to Update: 73

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 04/05/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 11/18/2021
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/17/2022
Number of Days to Update: 79

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 11/09/2021
Date Data Arrived at EDR: 11/09/2021
Date Made Active in Reports: 01/27/2022
Number of Days to Update: 79

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/08/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 11/30/2021
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/17/2022
Number of Days to Update: 79

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 11/29/2021
Date Data Arrived at EDR: 11/29/2021
Date Made Active in Reports: 02/11/2022
Number of Days to Update: 74

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 12/13/2021
Date Data Arrived at EDR: 12/14/2021
Date Made Active in Reports: 03/03/2022
Number of Days to Update: 79

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/09/2022
Next Scheduled EDR Contact: 06/26/2022
Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 12/03/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/24/2022
Number of Days to Update: 79

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78
Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 90
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 04/08/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 03/16/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing
In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 11/30/2021
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/16/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 01/18/2022
Date Data Arrived at EDR: 01/19/2022
Date Made Active in Reports: 04/08/2022
Number of Days to Update: 79

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/19/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)

Sampling point - public sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)

Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Varies

PCS INACTIVE: Listing of Inactive PCS Permits

An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 03/31/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Semi-Annually

MINES MRDS: Mineral Resources Data System

Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

PCS ENF: Enforcement data

No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 03/31/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System

DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 07/13/2021
Date Data Arrived at EDR: 07/14/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 04/05/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Varies

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 03/31/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Semi-Annually

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 03/31/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 12/28/2021
Date Data Arrived at EDR: 12/28/2021
Date Made Active in Reports: 03/18/2022
Number of Days to Update: 80

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/18/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List

Cupa Facility List

Date of Government Version: 11/01/2021
Date Data Arrived at EDR: 11/02/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 83

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 03/31/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 12/28/2021
Date Data Arrived at EDR: 12/28/2021
Date Made Active in Reports: 03/18/2022
Number of Days to Update: 80

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 03/17/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 01/24/2022
Date Data Arrived at EDR: 01/25/2022
Date Made Active in Reports: 04/14/2022
Number of Days to Update: 79

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 01/10/2022
Date Data Arrived at EDR: 01/26/2022
Date Made Active in Reports: 04/14/2022
Number of Days to Update: 78

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 11/30/2021
Date Data Arrived at EDR: 12/01/2021
Date Made Active in Reports: 02/16/2022
Number of Days to Update: 77

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 02/07/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 06/28/2021
Date Data Arrived at EDR: 12/21/2021
Date Made Active in Reports: 03/03/2022
Number of Days to Update: 72

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 03/31/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 04/14/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 08/12/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 88

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 01/13/2022
Date Data Arrived at EDR: 01/14/2022
Date Made Active in Reports: 04/06/2022
Number of Days to Update: 82

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/18/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

KERN COUNTY:

CUPA KERN: CUPA Facility List
A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 11/10/2021
Date Data Arrived at EDR: 11/12/2021
Date Made Active in Reports: 02/02/2022
Number of Days to Update: 82

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 11/10/2021
Date Data Arrived at EDR: 11/12/2021
Date Made Active in Reports: 02/02/2022
Number of Days to Update: 82

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/03/2020
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/14/2021
Number of Days to Update: 78

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 03/24/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 11/04/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 80

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/11/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 07/31/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 11/09/2020
Number of Days to Update: 80

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 04/14/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 03/10/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 04/04/2022
Date Data Arrived at EDR: 04/05/2022
Date Made Active in Reports: 04/13/2022
Number of Days to Update: 8

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/04/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/10/2022
Date Data Arrived at EDR: 01/11/2022
Date Made Active in Reports: 04/04/2022
Number of Days to Update: 83

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/12/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2022
Date Data Arrived at EDR: 01/21/2022
Date Made Active in Reports: 04/11/2022
Number of Days to Update: 80

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 04/08/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 03/23/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills

This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 01/10/2022
Date Data Arrived at EDR: 01/12/2022
Date Made Active in Reports: 04/04/2022
Number of Days to Update: 82

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 04/13/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory

A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 04/19/2021
Date Data Arrived at EDR: 06/17/2021
Date Made Active in Reports: 06/28/2021
Number of Days to Update: 11

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 03/21/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory

A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 04/19/2021
Date Data Arrived at EDR: 06/17/2021
Date Made Active in Reports: 09/14/2021
Number of Days to Update: 89

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 03/21/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 05/26/2021
Date Data Arrived at EDR: 07/09/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 82

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/14/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 04/08/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 04/14/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 02/02/2021
Date Data Arrived at EDR: 04/28/2021
Date Made Active in Reports: 07/13/2021
Number of Days to Update: 76

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/18/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/10/2020
Date Data Arrived at EDR: 08/12/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 03/23/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Semi-Annually

MENDOCINO COUNTY:

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/22/2021
Date Data Arrived at EDR: 11/18/2021
Date Made Active in Reports: 11/22/2021
Number of Days to Update: 4

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 11/24/2021
Date Data Arrived at EDR: 11/29/2021
Date Made Active in Reports: 02/11/2022
Number of Days to Update: 74

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 03/17/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 10/04/2021
Date Data Arrived at EDR: 10/06/2021
Date Made Active in Reports: 12/29/2021
Number of Days to Update: 84

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 04/04/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 01/26/2022
Date Made Active in Reports: 04/14/2022
Number of Days to Update: 78

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 01/14/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 04/14/2022
Number of Days to Update: 70

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 01/31/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 10/08/2021
Date Data Arrived at EDR: 11/02/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 83

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 01/31/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 01/14/2022
Date Data Arrived at EDR: 02/01/2022
Date Made Active in Reports: 04/18/2022
Number of Days to Update: 76

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/01/2021
Date Data Arrived at EDR: 12/02/2021
Date Made Active in Reports: 02/25/2022
Number of Days to Update: 85

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 04/14/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 03/31/2022
Date Data Arrived at EDR: 03/31/2022
Date Made Active in Reports: 04/08/2022
Number of Days to Update: 8

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/14/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 03/31/2022
Date Data Arrived at EDR: 03/31/2022
Date Made Active in Reports: 04/08/2022
Number of Days to Update: 8

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/14/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 06/18/2021
Date Data Arrived at EDR: 09/28/2021
Date Made Active in Reports: 12/14/2021
Number of Days to Update: 77

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 03/31/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/02/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 11/02/2021
Number of Days to Update: 90

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 03/31/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 11/04/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 80

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 12/01/2021
Date Data Arrived at EDR: 12/02/2021
Date Made Active in Reports: 02/17/2022
Number of Days to Update: 77

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 01/31/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 11/30/2021
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/16/2022
Number of Days to Update: 78

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 04/14/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/22/2021
Date Data Arrived at EDR: 10/19/2021
Date Made Active in Reports: 01/13/2022
Number of Days to Update: 86

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 04/18/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 02/03/2022
Date Data Arrived at EDR: 02/04/2022
Date Made Active in Reports: 02/11/2022
Number of Days to Update: 7

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

LUST SAN FRANCISCO: Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/10/2021
Date Data Arrived at EDR: 11/11/2021
Date Made Active in Reports: 02/02/2022
Number of Days to Update: 83

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/10/2022
Next Scheduled EDR Contact: 06/27/2022
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 11/15/2021
Date Data Arrived at EDR: 11/16/2021
Date Made Active in Reports: 02/03/2022
Number of Days to Update: 79

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/11/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 11/19/2021
Date Data Arrived at EDR: 11/22/2021
Date Made Active in Reports: 02/07/2022
Number of Days to Update: 77

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 82

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 09/15/2021
Date Data Arrived at EDR: 09/16/2021
Date Made Active in Reports: 12/09/2021
Number of Days to Update: 84

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 07/02/2021
Date Data Arrived at EDR: 07/06/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 8

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 03/16/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 09/24/2021
Number of Days to Update: 86

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 03/16/2022
Next Scheduled EDR Contact: 07/04/2022
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 11/09/2021
Date Data Arrived at EDR: 11/11/2021
Date Made Active in Reports: 02/02/2022
Number of Days to Update: 83

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 04/11/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 11/23/2021
Date Data Arrived at EDR: 11/29/2021
Date Made Active in Reports: 02/11/2022
Number of Days to Update: 74

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 04/06/2021
Number of Days to Update: 82

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 01/13/2022
Date Data Arrived at EDR: 01/14/2022
Date Made Active in Reports: 04/06/2022
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 04/26/2021
Date Data Arrived at EDR: 04/28/2021
Date Made Active in Reports: 07/13/2021
Number of Days to Update: 76

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 04/14/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 04/14/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/27/2021
Date Data Arrived at EDR: 01/20/2022
Date Made Active in Reports: 04/08/2022
Number of Days to Update: 78
Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/18/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/23/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/07/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 12/27/2021
Date Data Arrived at EDR: 01/20/2022
Date Made Active in Reports: 04/11/2022
Number of Days to Update: 81
Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 04/18/2022
Next Scheduled EDR Contact: 08/01/2022
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/29/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/24/2022
Number of Days to Update: 79
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/08/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 12/27/2021
Date Data Arrived at EDR: 01/04/2022
Date Made Active in Reports: 03/18/2022
Number of Days to Update: 73
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/24/2022
Next Scheduled EDR Contact: 07/11/2022
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 01/26/2022
Date Data Arrived at EDR: 01/27/2022
Date Made Active in Reports: 04/14/2022
Number of Days to Update: 77

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 11/11/2021
Date Data Arrived at EDR: 11/12/2021
Date Made Active in Reports: 02/01/2022
Number of Days to Update: 81

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/07/2022
Next Scheduled EDR Contact: 07/18/2022
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 10/29/2021
Date Made Active in Reports: 01/19/2022
Number of Days to Update: 82

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/08/2022
Next Scheduled EDR Contact: 07/25/2022
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/18/2022
Number of Days to Update: 80

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/14/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

5326 HIGHWAY 76
5326 HIGHWAY 76
FALLBROOK, CA 92028

TARGET PROPERTY COORDINATES

Latitude (North):	33.343882 - 33ˆ 20’ 37.98’’
Longitude (West):	117.149383 - 117ˆ 8’ 57.78’’
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	486099.3
UTM Y (Meters):	3689228.5
Elevation:	305 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	12014832 BONSALL, CA
Version Date:	2018

EDR’s GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

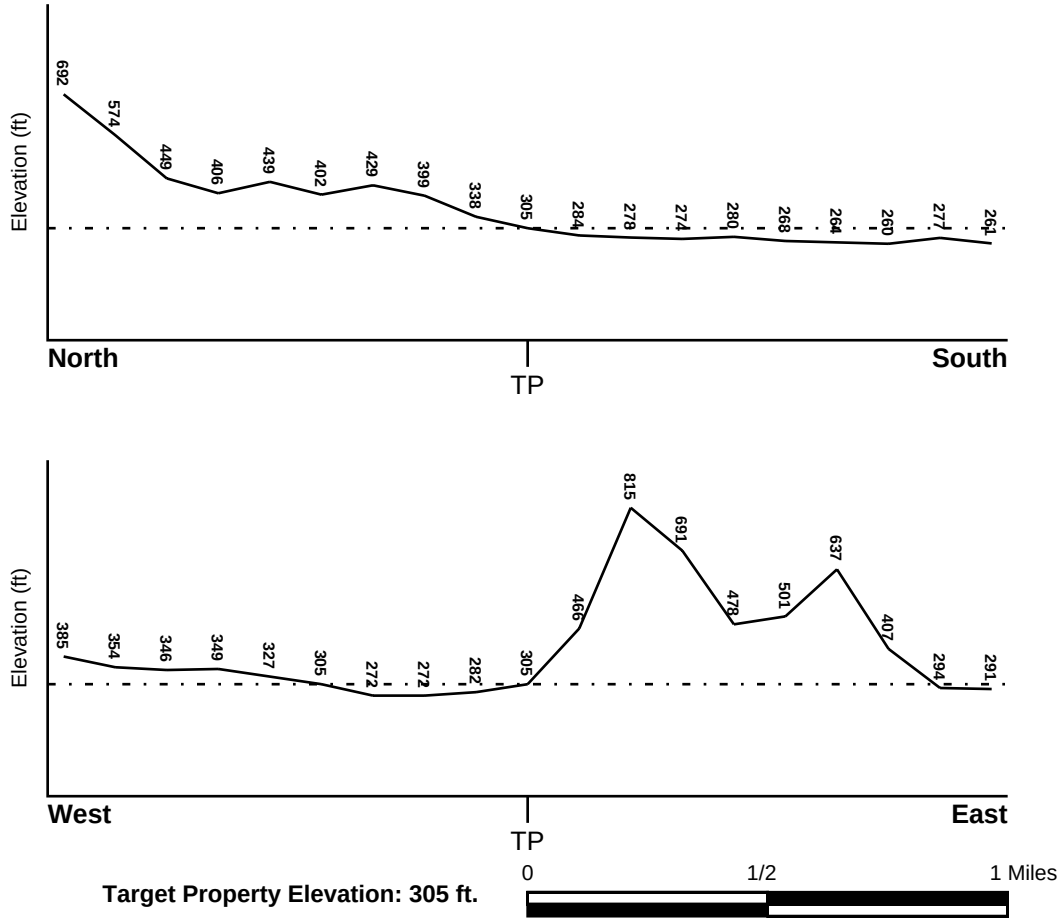
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General WSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06073C0485G	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06073C0481G	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
BONSALL	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

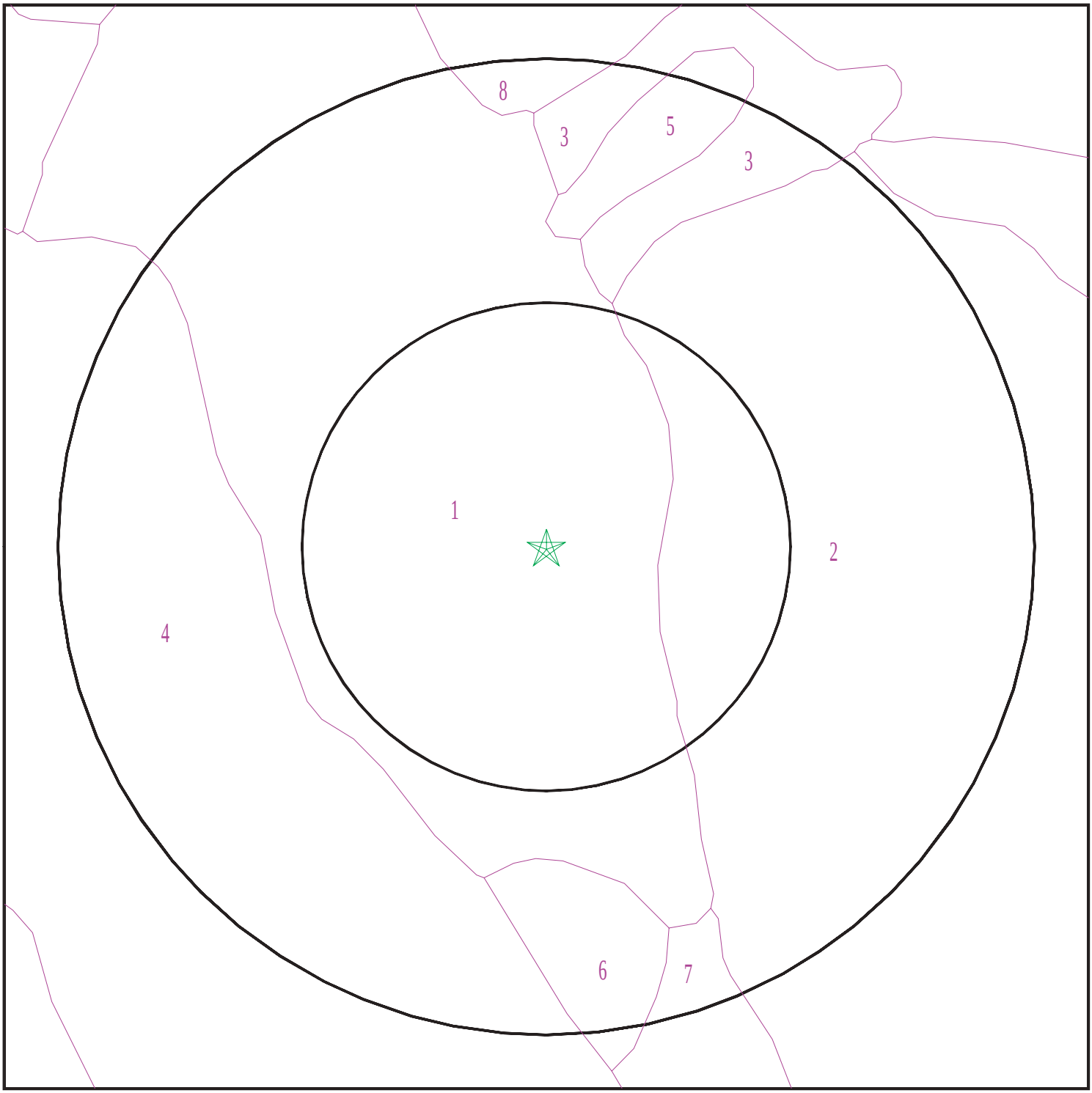
Era:	Mesozoic
System:	Cretaceous
Series:	Cretaceous granitic rocks
Code:	Kg *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Plutonic and Intrusive Rocks

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 6947084.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	5326 Highway 76	CLIENT:	Converse Consultants
ADDRESS:	5326 HIGHWAY 76 FALLBROOK CA 92028	CONTACT:	Katherine Thomas
LAT/LONG:	33.343882 / 117.149383	INQUIRY #:	6947084.2s
		DATE:	April 19, 2022 6:36 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: RAMONA

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.6
2	16 inches	59 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.6
3	59 inches	74 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.6

Soil Map ID: 2

Soil Component Name: CIENEBA

Soil Surface Texture: coarse sandy loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 5 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	coarse sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	Not reported	Max: Min:	Max: Min:
2	7 inches	11 inches	weathered bedrock	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	Not reported	Max: Min:	Max: Min:

Soil Map ID: 3

Soil Component Name: FALLBROOK

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:
2	5 inches	11 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:
3	11 inches	27 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:
4	27 inches	46 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:
5	46 inches	51 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:

Soil Map ID: 4

Soil Component Name: GRANGEVILLE

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 92 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 14	Max: 8.4 Min: 7.9
2	11 inches	59 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 14	Max: 8.4 Min: 7.9

Soil Map ID: 5

Soil Component Name: STEEP GULLIED LAND

Soil Surface Texture: variable

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class:
Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	59 inches	variable	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 6

Soil Component Name: RAMONA

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.6
2	9 inches	59 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.6
3	59 inches	74 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.6

Soil Map ID: 7

Soil Component Name: ARLINGTON

Soil Surface Texture: coarse sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	coarse sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 6.5 Min: 6.1
2	9 inches	33 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 6.5 Min: 6.1
3	44 inches	59 inches	coarse sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 6.5 Min: 6.1
4	33 inches	44 inches	coarse sandy loam, cemented	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 6.5 Min: 6.1

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 8

Soil Component Name: FALLBROOK

Soil Surface Texture: sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	1 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:
2	1 inches	24 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:
3	24 inches	27 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:
4	27 inches	31 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	USGS40000132508	1/4 - 1/2 Mile SSE
C6	USGS40000132512	1/2 - 1 Mile SE
C7	USGS40000132513	1/2 - 1 Mile SE
B8	USGS40000132498	1/2 - 1 Mile SSE
E10	USGS40000132487	1/2 - 1 Mile South
D12	USGS40000132491	1/2 - 1 Mile SSE
F16	USGS40000132507	1/2 - 1 Mile SE
I20	USGS40000132476	1/2 - 1 Mile SSE
G22	USGS40000132490	1/2 - 1 Mile SE
H23	USGS40000132500	1/2 - 1 Mile SE
J24	USGS40000132470	1/2 - 1 Mile SSW
K28	USGS40000132455	1/2 - 1 Mile South
M31	USGS40000132454	1/2 - 1 Mile South
L32	USGS40000132518	1/2 - 1 Mile ESE
L33	USGS40000132519	1/2 - 1 Mile ESE
L38	USGS40000132515	1/2 - 1 Mile ESE
K42	USGS40000132443	1/2 - 1 Mile South
O45	USGS40000132526	1/2 - 1 Mile ESE
O46	USGS40000132517	1/2 - 1 Mile ESE
O48	USGS40000132511	1/2 - 1 Mile ESE
O49	USGS40000132525	1/2 - 1 Mile ESE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

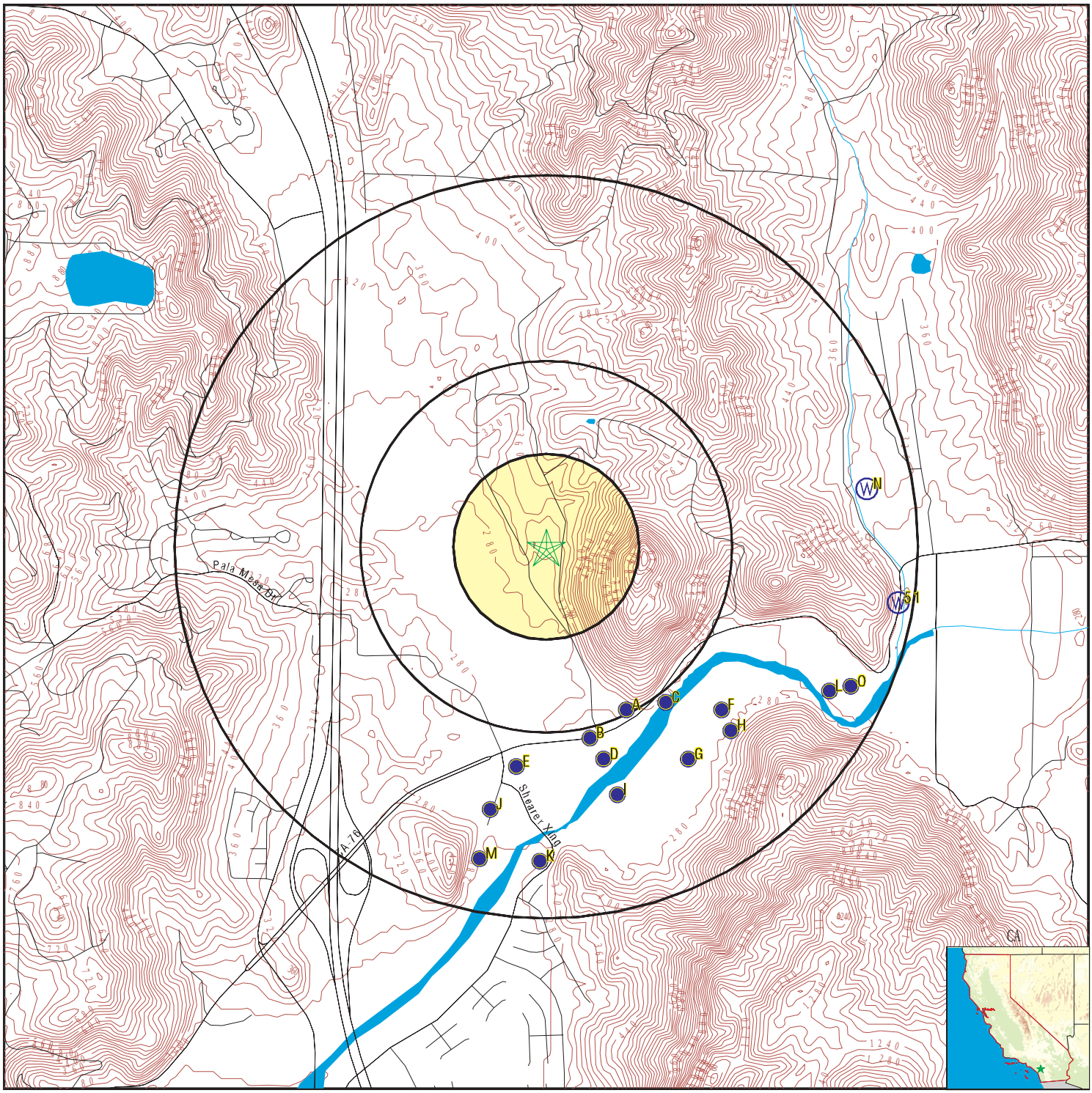
MAP ID	WELL ID	LOCATION FROM TP

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	CADWR9000002254	1/4 - 1/2 Mile SSE
B3	CADWR9000002245	1/2 - 1 Mile South
C4	CADWR9000002258	1/2 - 1 Mile SE
C5	CADWR9000002257	1/2 - 1 Mile SE
D9	CADWR9000002241	1/2 - 1 Mile SSE
E11	CAUSGSN00001570	1/2 - 1 Mile South
E13	CADWR9000002237	1/2 - 1 Mile South
E14	CADWR0000023558	1/2 - 1 Mile South
F15	CADWR9000002253	1/2 - 1 Mile SE
F17	CAUSGSN00006632	1/2 - 1 Mile SE
G18	CADWR9000002240	1/2 - 1 Mile SSE
H19	CADWR9000002247	1/2 - 1 Mile SE
I21	CADWR9000002231	1/2 - 1 Mile SSE
J25	CADWR9000002225	1/2 - 1 Mile SSW
K26	CADWR9000002218	1/2 - 1 Mile South
K27	CADWR0000002038	1/2 - 1 Mile South
K29	CAUSGSN00011808	1/2 - 1 Mile South
L30	CADWR9000002256	1/2 - 1 Mile ESE
L34	CAUSGSN00002399	1/2 - 1 Mile ESE
L35	CAUSGSN00010579	1/2 - 1 Mile ESE
L36	CADWR9000002261	1/2 - 1 Mile ESE
L37	CADWR0000022427	1/2 - 1 Mile ESE
M39	CADWR9000002217	1/2 - 1 Mile SSW
N40	9372	1/2 - 1 Mile East
N41	9499	1/2 - 1 Mile East
K43	CAUSGSN00003485	1/2 - 1 Mile South
K44	CADWR9000002210	1/2 - 1 Mile South
O47	CAUSGSN00019139	1/2 - 1 Mile ESE
O50	CADWR9000002262	1/2 - 1 Mile ESE
51	CADWR9000002290	1/2 - 1 Mile East

PHYSICAL SETTING SOURCE MAP - 6947084.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	5326 Highway 76	CLIENT:	Converse Consultants
ADDRESS:	5326 HIGHWAY 76 FALLBROOK CA 92028	CONTACT:	Katherine Thomas
LAT/LONG:	33.343882 / 117.149383	INQUIRY #:	6947084.2s
		DATE:	April 19, 2022 6:36 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A1
SSE
1/4 - 1/2 Mile
Lower

CA WELLS **CADWR9000002254**

State Well #:	10S03W01G001S	Station ID:	30557
Well Name:	Not Reported	Basin Name:	Lower San Luis Rey Valley
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

A2
SSE
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000132508**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010S003W01G001S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	222	Level reading date:	1953-04-02
Feet below surface:	8.93	Feet to sea level:	Not Reported
Note:	Not Reported		

Level reading date:	1952-04-21	Feet below surface:	6.19
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1952-02-07	Feet below surface:	8.18
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1952-01-11	Feet below surface:	13.31
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-06-16	Feet below surface:	15.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-05-15	Feet below surface:	10.0
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-04-15	Feet below surface:	9.05
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-04-05	Feet below surface:	9.53
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-03-15	Feet below surface:	10.8
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-02-16	Feet below surface:	13.0
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1950-07-15	Feet below surface:	16.45
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-07-10	Feet below surface:	15.98
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-06-17	Feet below surface:	13.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-05-15	Feet below surface:	11.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-04-14	Feet below surface:	9.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-04-03	Feet below surface:	9.53
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-03-18	Feet below surface:	8.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-02-18	Feet below surface:	8.35
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-01-14	Feet below surface:	10.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-01-03	Feet below surface:	13.14
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-09-15	Feet below surface:	17.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-08-16	Feet below surface:	15.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-07-11	Feet below surface:	12.85
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-07-05	Feet below surface:	13.47
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-06-15	Feet below surface:	10.05
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-05-18	Feet below surface:	8.45
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-04-18	Feet below surface:	8.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-04-04	Feet below surface:	8.39
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-03-15	Feet below surface:	8.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-02-16	Feet below surface:	8.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-01-15	Feet below surface:	8.80
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1949-01-03	Feet below surface:	9.54
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-12-15	Feet below surface:	14.65
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-11-15	Feet below surface:	15.55
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-10-16	Feet below surface:	16.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-10-04	Feet below surface:	15.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-09-18	Feet below surface:	15.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-08-17	Feet below surface:	14.33
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-08-16	Feet below surface:	14.35
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-07-20	Feet below surface:	12.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-07-12	Feet below surface:	12.22
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-06-16	Feet below surface:	10.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-05-15	Feet below surface:	9.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-04-17	Feet below surface:	8.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-04-05	Feet below surface:	8.21
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-03-20	Feet below surface:	8.43
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-02-21	Feet below surface:	8.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-01-22	Feet below surface:	8.45
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-01-05	Feet below surface:	8.39
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-12-15	Feet below surface:	8.70
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-11-19	Feet below surface:	13.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-10-06	Feet below surface:	16.63
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1947-09-12	Feet below surface:	16.35
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-09-02	Feet below surface:	15.70
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-08-15	Feet below surface:	16.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-07-16	Feet below surface:	12.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-07-07	Feet below surface:	12.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-06-16	Feet below surface:	10.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-05-16	Feet below surface:	8.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-04-16	Feet below surface:	8.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-04-07	Feet below surface:	8.56
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-03-14	Feet below surface:	8.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-02-15	Feet below surface:	8.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-01-18	Feet below surface:	8.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-01-06	Feet below surface:	4.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-12-14	Feet below surface:	8.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-11-15	Feet below surface:	9.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-10-18	Feet below surface:	13.14
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-10-07	Feet below surface:	13.17
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-09-16	Feet below surface:	14.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-08-21	Feet below surface:	12.35
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-07-15	Feet below surface:	8.58
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-07-02	Feet below surface:	9.05
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1946-06-15	Feet below surface:	8.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-05-15	Feet below surface:	8.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-04-17	Feet below surface:	8.06
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-04-04	Feet below surface:	7.68
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-03-02	Feet below surface:	8.05
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-02-15	Feet below surface:	7.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-01-08	Feet below surface:	7.70
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-01-07	Feet below surface:	7.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-12-05	Feet below surface:	7.89
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-11-07	Feet below surface:	8.34
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-10-09	Feet below surface:	7.94
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-10-02	Feet below surface:	7.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-09-13	Feet below surface:	8.02
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-08-04	Feet below surface:	8.27
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-07-06	Feet below surface:	8.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-07-02	Feet below surface:	8.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-06-07	Feet below surface:	8.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-05-08	Feet below surface:	7.98
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-04-05	Feet below surface:	7.35
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-04-02	Feet below surface:	7.45
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-03-03	Feet below surface:	7.40
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1945-02-07	Feet below surface:	7.29
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-01-04	Feet below surface:	7.43
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-01-01	Feet below surface:	7.54
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-12-06	Feet below surface:	7.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-11-04	Feet below surface:	7.53
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-10-11	Feet below surface:	7.88
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-10-02	Feet below surface:	7.82
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-09-12	Feet below surface:	8.55
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-08-09	Feet below surface:	8.12
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-07-03	Feet below surface:	8.55
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-05-10	Feet below surface:	8.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-04-03	Feet below surface:	6.33
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-04-01	Feet below surface:	7.35
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-03-04	Feet below surface:	7.31
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-02-06	Feet below surface:	7.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-01-18	Feet below surface:	7.29
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-01-05	Feet below surface:	7.35
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-12-14	Feet below surface:	7.32
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-12-03	Feet below surface:	7.41
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-11-16	Feet below surface:	7.54
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-11-03	Feet below surface:	7.53
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1943-10-12	Feet below surface:	7.58
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-10-05	Feet below surface:	8.06
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-09-14	Feet below surface:	7.72
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-08-17	Feet below surface:	8.03
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-07-14	Feet below surface:	8.86
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-06-15	Feet below surface:	7.74
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-05-14	Feet below surface:	7.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-04-12	Feet below surface:	7.01
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-03-15	Feet below surface:	7.01
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-02-15	Feet below surface:	7.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-01-18	Feet below surface:	7.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-12-14	Feet below surface:	7.78
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-11-16	Feet below surface:	7.52
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-10-19	Feet below surface:	7.76
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-09-14	Feet below surface:	8.08
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-08-24	Feet below surface:	8.21
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-07-13	Feet below surface:	8.72
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-06-15	Feet below surface:	8.08
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-05-18	Feet below surface:	7.79
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-04-15	Feet below surface:	7.31
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-03-18	Feet below surface:	7.19
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1942-02-16	Feet below surface:	7.39
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-01-12	Feet below surface:	7.72
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-12-15	Feet below surface:	7.29
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-11-17	Feet below surface:	7.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-10-13	Feet below surface:	7.68
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-09-15	Feet below surface:	7.76
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-08-18	Feet below surface:	7.64
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-07-14	Feet below surface:	7.92
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-06-16	Feet below surface:	7.68
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-05-12	Feet below surface:	7.12
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-04-14	Feet below surface:	6.41
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-03-17	Feet below surface:	6.33
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-02-17	Feet below surface:	7.65
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-01-17	Feet below surface:	8.02
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-12-16	Feet below surface:	8.13
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-11-18	Feet below surface:	8.17
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-10-14	Feet below surface:	8.46
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-09-16	Feet below surface:	9.51
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-08-12	Feet below surface:	9.49
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-07-15	Feet below surface:	9.28
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-06-17	Feet below surface:	8.89
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1940-05-13	Feet below surface:	8.88
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-04-15	Feet below surface:	8.09
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-03-18	Feet below surface:	8.06
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-02-12	Feet below surface:	7.98
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-01-15	Feet below surface:	7.82
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-12-18	Feet below surface:	8.08
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-11-13	Feet below surface:	8.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-10-16	Feet below surface:	8.07
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-09-15	Feet below surface:	8.93
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-08-14	Feet below surface:	8.83
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-07-14	Feet below surface:	8.64
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-06-16	Feet below surface:	8.56
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-05-16	Feet below surface:	8.82
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-04-14	Feet below surface:	7.74
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-03-16	Feet below surface:	7.93
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-03-01	Feet below surface:	7.78
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-02-15	Feet below surface:	7.74
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-01-12	Feet below surface:	7.51
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1938-12-15	Feet below surface:	8.09
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1938-11-14	Feet below surface:	7.76
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1938-10-15	Feet below surface:	7.65
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date: 1938-09-12 Feet below surface: 8.37
Feet to sea level: Not Reported Note: Not Reported

Level reading date: 1938-07-08 Feet below surface: 8.27
Feet to sea level: Not Reported Note: Not Reported

Level reading date: 1937-12-15 Feet below surface: 7.29
Feet to sea level: Not Reported Note: Not Reported

Level reading date: 1937-10-29 Feet below surface: 7.27
Feet to sea level: Not Reported Note: Not Reported

Level reading date: 1937-09-13 Feet below surface: 8.18
Feet to sea level: Not Reported Note: Not Reported

Level reading date: 1937-06-10 Feet below surface: 7.52
Feet to sea level: Not Reported Note: Not Reported

Level reading date: 1934-08-24 Feet below surface: 16.00
Feet to sea level: Not Reported Note: Not Reported

Level reading date: 1934-05-12 Feet below surface: 9.53
Feet to sea level: Not Reported Note: Not Reported

Level reading date: 1933-10-30 Feet below surface: 13.98
Feet to sea level: Not Reported Note: Not Reported

Level reading date: 1933-07-31 Feet below surface: 10.32
Feet to sea level: Not Reported Note: Not Reported

Level reading date: 1933-05-25 Feet below surface: 8.47
Feet to sea level: Not Reported Note: Not Reported

Level reading date: 1933-03-07 Feet below surface: 7.24
Feet to sea level: Not Reported Note: Not Reported

Level reading date: 1932-09-10 Feet below surface: 16.65
Feet to sea level: Not Reported
Note: A nearby site that taps the same aquifer had been pumped recently.

Level reading date: 1932-05-27 Feet below surface: 8.26
Feet to sea level: Not Reported Note: Not Reported

Level reading date: 1932-04-14 Feet below surface: 7.90
Feet to sea level: Not Reported Note: Not Reported

Level reading date: 1931-08-26 Feet below surface: 12.55
Feet to sea level: Not Reported Note: Not Reported

Level reading date: 1931-07-08 Feet below surface: 10.41
Feet to sea level: Not Reported
Note: A nearby site that taps the same aquifer had been pumped recently.

Level reading date: 1931-06-16 Feet below surface: 7.92
Feet to sea level: Not Reported Note: Not Reported

Level reading date: 1931-03-19 Feet below surface: 8.58
Feet to sea level: Not Reported Note: Not Reported

Level reading date: 1930-11-04 Feet below surface: 10.60
Feet to sea level: Not Reported Note: Not Reported

Level reading date:	1930-07-18	Feet below surface:	7.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1930-05-19	Feet below surface:	7.33
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1930-04-17	Feet below surface:	7.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1930-03-01	Feet below surface:	7.36
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1929-12-07	Feet below surface:	12.38
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer had been pumped recently.		
Level reading date:	1929-10-24	Feet below surface:	11.36
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1929-07-12	Feet below surface:	9.75
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1929-04-29	Feet below surface:	9.58
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1928-09-13	Feet below surface:	15.96
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1928-04-11	Feet below surface:	8.73
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer had been pumped recently.		
Level reading date:	1927-09-30	Feet below surface:	16.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1927-09-12	Feet below surface:	14.28
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer had been pumped recently.		
Level reading date:	1927-04-28	Feet below surface:	8.98
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1926-10-26	Feet below surface:	9.99
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer had been pumped recently.		
Level reading date:	1926-09-22	Feet below surface:	11.85
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer had been pumped recently.		
Level reading date:	1926-05-02	Feet below surface:	7.04
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1926-03-28	Feet below surface:	6.66
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1925-09-30	Feet below surface:	12.16
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer had been pumped recently.		
Level reading date:	1925-07-28	Feet below surface:	10.15
Feet to sea level:	Not Reported		

Note:	A nearby site that taps the same aquifer had been pumped recently.		
Level reading date:	1925-05-22	Feet below surface:	7.54
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer had been pumped recently.		
Level reading date:	1924-08-30	Feet below surface:	9.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1924-05-09	Feet below surface:	6.58
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1923-12-21	Feet below surface:	6.58
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1923-11-28	Feet below surface:	6.61
Feet to sea level:	Not Reported	Note:	Not Reported

B3
South
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000002245**

State Well #:	10S03W01G002S	Station ID:	39498
Well Name:	Not Reported	Basin Name:	Lower San Luis Rey Valley
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

C4
SE
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000002258**

State Well #:	10S03W01Z006S	Station ID:	10317
Well Name:	Not Reported	Basin Name:	Lower San Luis Rey Valley
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

C5
SE
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000002257**

State Well #:	10S03W01Z005S	Station ID:	30562
Well Name:	Not Reported	Basin Name:	Lower San Luis Rey Valley
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

C6
SE
1/2 - 1 Mile
Lower

FED USGS **USGS40000132512**

Organization ID:	USGS-CA
Organization Name:	USGS California Water Science Center

Monitor Location:	010S003W01Z005S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	23	Level reading date:	1915-10-10
Feet below surface:	4.58	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1915-08-02	Feet below surface:	4.75
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1914-08-19	Feet below surface:	7.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1914-05-09	Feet below surface:	5.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1914-04-25	Feet below surface:	5.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1914-03-01	Feet below surface:	4.92
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1914-01-23	Feet below surface:	4.92
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1913-06-13	Feet below surface:	7.58
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1913-05-09	Feet below surface:	5.17
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1913-04-18	Feet below surface:	5.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1913-02-20	Feet below surface:	4.92
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1913-01-19	Feet below surface:	4.92
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1913-01-02	Feet below surface:	4.83
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1912-12-18	Feet below surface:	5.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1912-10-30	Feet below surface:	4.83
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1912-07-20	Feet below surface:	7.42
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1912-07-11	Feet below surface:	5.42
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1912-06-25	Feet below surface:	5.17
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1912-05-22	Feet below surface:	5.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1912-04-19	Feet below surface:	4.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1912-04-12	Feet below surface:	4.08
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1912-04-10	Feet below surface:	4.83
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1912-04-09	Feet below surface:	4.83
Feet to sea level:	Not Reported	Note:	Not Reported

C7
SE
1/2 - 1 Mile
Lower

FED USGS **USGS40000132513**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010S003W01Z006S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	137	Level reading date:	1952-04-21
Feet below surface:	7.69	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1952-01-11	Feet below surface:	14.81
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-07-10	Feet below surface:	15.98
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-04-03	Feet below surface:	9.53
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-01-03	Feet below surface:	13.14
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-07-05	Feet below surface:	13.47
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-04-04	Feet below surface:	8.39
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-01-03	Feet below surface:	9.54
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1948-10-04	Feet below surface:	15.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-08-17	Feet below surface:	14.33
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-07-12	Feet below surface:	12.22
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-04-05	Feet below surface:	8.21
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-01-05	Feet below surface:	8.39
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-10-06	Feet below surface:	16.6
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-07-07	Feet below surface:	12.6
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-04-07	Feet below surface:	8.6
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-01-06	Feet below surface:	7.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-10-07	Feet below surface:	13.17
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-07-02	Feet below surface:	9.05
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-04-04	Feet below surface:	7.68
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-01-07	Feet below surface:	7.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-10-02	Feet below surface:	7.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-07-02	Feet below surface:	8.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-04-02	Feet below surface:	7.45
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-01-01	Feet below surface:	7.54
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-10-02	Feet below surface:	7.82
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-07-03	Feet below surface:	8.55
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-04-03	Feet below surface:	7.33
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-01-18	Feet below surface:	7.29
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1943-12-14	Feet below surface:	7.32
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-11-16	Feet below surface:	7.54
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-10-12	Feet below surface:	7.58
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-09-14	Feet below surface:	7.72
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-08-17	Feet below surface:	8.03
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-07-14	Feet below surface:	8.86
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-06-15	Feet below surface:	7.74
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-05-14	Feet below surface:	7.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-04-12	Feet below surface:	7.01
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-03-15	Feet below surface:	7.01
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-02-15	Feet below surface:	7.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-01-18	Feet below surface:	7.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-12-14	Feet below surface:	7.78
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-11-16	Feet below surface:	7.52
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-10-19	Feet below surface:	7.76
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-09-14	Feet below surface:	8.08
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-08-24	Feet below surface:	8.21
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-07-13	Feet below surface:	8.72
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-06-15	Feet below surface:	8.08
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-05-18	Feet below surface:	7.79
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-04-15	Feet below surface:	7.31
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1942-03-18	Feet below surface:	7.19
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-02-16	Feet below surface:	7.39
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-01-12	Feet below surface:	7.27
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-12-15	Feet below surface:	7.29
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-11-17	Feet below surface:	7.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-10-13	Feet below surface:	7.68
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-09-15	Feet below surface:	7.76
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-08-18	Feet below surface:	7.64
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-07-14	Feet below surface:	7.92
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-06-16	Feet below surface:	7.68
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-05-12	Feet below surface:	7.12
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-04-14	Feet below surface:	6.41
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-03-17	Feet below surface:	6.33
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-02-17	Feet below surface:	7.65
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-01-17	Feet below surface:	8.02
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-12-16	Feet below surface:	8.13
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-11-18	Feet below surface:	8.17
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-10-14	Feet below surface:	8.46
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-09-16	Feet below surface:	9.51
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-08-12	Feet below surface:	9.49
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-07-15	Feet below surface:	9.28
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1940-06-17	Feet below surface:	8.89
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-05-13	Feet below surface:	8.88
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-04-15	Feet below surface:	8.09
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-03-18	Feet below surface:	8.06
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-02-12	Feet below surface:	7.98
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-01-15	Feet below surface:	7.82
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-12-18	Feet below surface:	8.08
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-11-13	Feet below surface:	8.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-10-16	Feet below surface:	8.07
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-09-15	Feet below surface:	8.93
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-08-14	Feet below surface:	8.83
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-07-14	Feet below surface:	8.64
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-06-16	Feet below surface:	8.56
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-05-16	Feet below surface:	8.82
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-04-14	Feet below surface:	7.74
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-03-16	Feet below surface:	7.93
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-03-01	Feet below surface:	7.78
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-02-15	Feet below surface:	7.74
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-01-12	Feet below surface:	7.51
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1938-12-15	Feet below surface:	8.09
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1938-11-14	Feet below surface:	7.76
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1938-10-15	Feet below surface:	7.65
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1938-09-12	Feet below surface:	8.37
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1938-07-08	Feet below surface:	8.27
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1937-12-15	Feet below surface:	7.29
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1937-10-29	Feet below surface:	11.27
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1937-09-13	Feet below surface:	8.18
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1937-06-10	Feet below surface:	7.52
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1934-08-24	Feet below surface:	16.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1934-05-12	Feet below surface:	9.53
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1933-10-30	Feet below surface:	13.98
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1933-07-31	Feet below surface:	10.32
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1933-05-25	Feet below surface:	8.47
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1933-03-07	Feet below surface:	7.24
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1932-09-10	Feet below surface:	12.65
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1932-05-27	Feet below surface:	8.26
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1932-04-14	Feet below surface:	7.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1931-08-26	Feet below surface:	12.55
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1931-07-08	Feet below surface:	10.41
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1931-06-16	Feet below surface:	7.92
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1931-03-19	Feet below surface:	8.58
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1930-11-04	Feet below surface:	10.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1930-07-18	Feet below surface:	7.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1930-05-19	Feet below surface:	7.33
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1930-04-17	Feet below surface:	7.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1930-03-01	Feet below surface:	7.36
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1929-12-07	Feet below surface:	12.38
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1929-10-24	Feet below surface:	11.36
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1929-07-12	Feet below surface:	9.73
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1929-04-29	Feet below surface:	9.58
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1928-09-13	Feet below surface:	15.96
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1928-04-11	Feet below surface:	8.73
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1927-09-30	Feet below surface:	16.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1927-09-12	Feet below surface:	14.28
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1927-04-28	Feet below surface:	8.98
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1926-10-26	Feet below surface:	9.89
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1926-09-22	Feet below surface:	11.85
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1926-05-02	Feet below surface:	7.04
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1926-03-28	Feet below surface:	6.66
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1925-09-30	Feet below surface:	12.16
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		

Level reading date:	1925-07-28	Feet below surface:	10.15
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1925-05-22	Feet below surface:	7.54
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1924-08-30	Feet below surface:	9.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1924-05-09	Feet below surface:	6.58
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1923-12-21	Feet below surface:	6.58
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1923-11-28	Feet below surface:	6.61
Feet to sea level:	Not Reported	Note:	Not Reported

B8
SSE **FED USGS** **USGS40000132498**
1/2 - 1 Mile
Lower

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010S003W01G002S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	76
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	6	Level reading date:	1966-06-29
Feet below surface:	52.66	Feet to sea level:	Not Reported
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1966-06-01	Feet below surface:	53.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-04-01	Feet below surface:	48.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-03-12	Feet below surface:	49
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-03-03	Feet below surface:	49.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-02-25	Feet below surface:	50
Feet to sea level:	Not Reported	Note:	Not Reported

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

D9
SSE
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000002241**

State Well #:	10S03W01K001S	Station ID:	10311
Well Name:	Not Reported	Basin Name:	Lower San Luis Rey Valley
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

E10
South
1/2 - 1 Mile
Lower

FED USGS **USGS40000132487**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010S003W01L001S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19260101	Well Depth:	100
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	77	Level reading date:	1985-09-23
Feet below surface:	20.73	Feet to sea level:	Not Reported
Note:	Not Reported		

Level reading date:	1985-07-15	Feet below surface:	9.70
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-06-18	Feet below surface:	15.38
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-05-30	Feet below surface:	14.18
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-04-15	Feet below surface:	12.74
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-03-19	Feet below surface:	14.94
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-02-25	Feet below surface:	12.39
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-01-15	Feet below surface:	12.22
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-12-19	Feet below surface:	18.83
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-11-24	Feet below surface:	20.16
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1984-05-18	Feet below surface:	13.53
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-04-20	Feet below surface:	12.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-03-23	Feet below surface:	12.15
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-02-17	Feet below surface:	11.95
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-01-16	Feet below surface:	11.39
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-11-09	Feet below surface:	11.34
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1973-03-21	Feet below surface:	11.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1972-04-26	Feet below surface:	40.25
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1966-06-29	Feet below surface:	69.2
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1945-10-09	Feet below surface:	10.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-09-16	Feet below surface:	10.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-08-04	Feet below surface:	10.35
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-07-06	Feet below surface:	10.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-06-07	Feet below surface:	10.49
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-05-08	Feet below surface:	10.46
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-04-05	Feet below surface:	10.32
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-03-03	Feet below surface:	10.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-02-07	Feet below surface:	10.32
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-01-04	Feet below surface:	10.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-12-06	Feet below surface:	10.28
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-11-04	Feet below surface:	10.30
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1944-10-11	Feet below surface:	10.35
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-09-12	Feet below surface:	10.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-08-09	Feet below surface:	9.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-07-03	Feet below surface:	9.75
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-05-10	Feet below surface:	9.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-04-01	Feet below surface:	9.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-03-04	Feet below surface:	9.13
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-02-06	Feet below surface:	9.15
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-01-05	Feet below surface:	9.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-12-03	Feet below surface:	9.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-11-03	Feet below surface:	9.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-10-05	Feet below surface:	9.45
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-08-02	Feet below surface:	8.93
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-07-01	Feet below surface:	8.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-05-30	Feet below surface:	8.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-04-29	Feet below surface:	7.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-04-03	Feet below surface:	7.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-03-05	Feet below surface:	7.12
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-02-03	Feet below surface:	8.72
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-12-02	Feet below surface:	8.92
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-10-30	Feet below surface:	10.56
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1940-10-01	Feet below surface:	10.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-09-02	Feet below surface:	10.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-08-02	Feet below surface:	9.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-06-29	Feet below surface:	8.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-06-03	Feet below surface:	8.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-05-01	Feet below surface:	8.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-04-04	Feet below surface:	8.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-03-04	Feet below surface:	8.85
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-01-29	Feet below surface:	8.88
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-01-02	Feet below surface:	8.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-11-30	Feet below surface:	8.92
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-10-31	Feet below surface:	9.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-09-30	Feet below surface:	9.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-08-30	Feet below surface:	9.82
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-08-02	Feet below surface:	9.52
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-07-01	Feet below surface:	9.18
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-06-05	Feet below surface:	9.19
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-04-28	Feet below surface:	8.67
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-03-06	Feet below surface:	8.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-02-08	Feet below surface:	8.12
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-01-02	Feet below surface:	8.32
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1938-11-30	Feet below surface:	8.57
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1938-10-05	Feet below surface:	8.7
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1938-10-03	Feet below surface:	8.56
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1929-09-25	Feet below surface:	11.5
Feet to sea level:	Not Reported	Note:	Not Reported

E11
South
1/2 - 1 Mile
Lower

CA WELLS **CAUSGSN00001570**

Well ID:	USGS-332007117085901	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-332007117085901	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-332007117085901&store_num=		
GeoTracker Data:	Not Reported		

D12
SSE
1/2 - 1 Mile
Lower

FED USGS **USGS40000132491**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010S003W01K001S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	88
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	4	Level reading date:	1973-03-22
Feet below surface:	7.07	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1972-04-26	Feet below surface:	16.50
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1971-10-27	Feet below surface:	12.89
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1966-06-29	Feet below surface:	85.6
Feet to sea level:	Not Reported	Note:	The site was being pumped.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

E13
South
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000002237**

State Well #:	10S03W01L001S	Station ID:	30559
Well Name:	Not Reported	Basin Name:	Lower San Luis Rey Valley
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

E14
South
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000023558**

Well ID:	10S03W01L001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	10S03W01L001S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=10S03W01L001S&store_num=		
GeoTracker Data:	Not Reported		

F15
SE
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000002253**

State Well #:	10S03W01H001S	Station ID:	30558
Well Name:	Not Reported	Basin Name:	Lower San Luis Rey Valley
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

F16
SE
1/2 - 1 Mile
Lower

FED USGS **USGS40000132507**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010S003W01H001S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19260101	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1966-06-01
Feet below surface:	43.00	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

F17
SE
1/2 - 1 Mile
Lower

CA WELLS **CAUSGSN00006632**

Well ID:	USGS-332015117082401	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-332015117082401	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-332015117082401&store_num=		
GeoTracker Data:	Not Reported		

G18
SSE
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000002240**

State Well #:	10S03W01Z001S	Station ID:	10314
Well Name:	Not Reported	Basin Name:	Lower San Luis Rey Valley
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

H19
SE
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000002247**

State Well #:	10S03W01Z002S	Station ID:	30561
Well Name:	Not Reported	Basin Name:	Not Reported
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

I20
SSE
1/2 - 1 Mile
Lower

FED USGS **USGS40000132476**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010S003W01Z004S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	94	Level reading date:	1952-11-17
Feet below surface:	16.32	Feet to sea level:	Not Reported
Note:	Not Reported		

Level reading date:	1952-04-21	Feet below surface:	7.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1952-01-11	Feet below surface:	18.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-10-08	Feet below surface:	20.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-07-17	Feet below surface:	15.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-04-05	Feet below surface:	11.42
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-01-03	Feet below surface:	11.23
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-10-09	Feet below surface:	10.74
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-07-10	Feet below surface:	9.34
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-04-03	Feet below surface:	8.75
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-01-03	Feet below surface:	12.11
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-10-03	Feet below surface:	11.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-07-05	Feet below surface:	8.51
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-04-04	Feet below surface:	7.45
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-01-03	Feet below surface:	9.84
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-10-04	Feet below surface:	9.34
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-08-17	Feet below surface:	9.19
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-07-12	Feet below surface:	8.95
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-04-05	Feet below surface:	8.91
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-01-05	Feet below surface:	12.73
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-10-06	Feet below surface:	11.3
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-07-07	Feet below surface:	8.5
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1947-04-07	Feet below surface:	7.5
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-01-06	Feet below surface:	7.2
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-10-07	Feet below surface:	8.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-07-02	Feet below surface:	7.67
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-04-04	Feet below surface:	6.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-01-07	Feet below surface:	6.71
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-10-02	Feet below surface:	7.38
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-07-02	Feet below surface:	7.22
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-04-02	Feet below surface:	6.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-01-01	Feet below surface:	6.52
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-10-02	Feet below surface:	6.88
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-07-03	Feet below surface:	6.83
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-04-03	Feet below surface:	6.22
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-01-18	Feet below surface:	6.13
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-12-14	Feet below surface:	6.01
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-11-16	Feet below surface:	6.42
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-10-12	Feet below surface:	6.58
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-09-14	Feet below surface:	6.67
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-08-17	Feet below surface:	6.70
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-07-14	Feet below surface:	6.62
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-06-15	Feet below surface:	6.49
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1943-05-14	Feet below surface:	6.32
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-04-12	Feet below surface:	5.84
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-03-15	Feet below surface:	5.53
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-02-15	Feet below surface:	5.82
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-01-18	Feet below surface:	6.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-12-14	Feet below surface:	6.47
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-11-16	Feet below surface:	6.55
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-10-19	Feet below surface:	6.67
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-09-14	Feet below surface:	6.81
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-08-24	Feet below surface:	6.85
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-07-13	Feet below surface:	6.78
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-06-15	Feet below surface:	6.62
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-05-18	Feet below surface:	6.44
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-04-15	Feet below surface:	6.13
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-03-18	Feet below surface:	5.82
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-02-16	Feet below surface:	6.15
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-01-12	Feet below surface:	5.84
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-12-15	Feet below surface:	5.97
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-11-17	Feet below surface:	6.02
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-10-13	Feet below surface:	6.43
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-09-15	Feet below surface:	6.52
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1941-08-18	Feet below surface:	6.58
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-07-14	Feet below surface:	6.55
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-06-16	Feet below surface:	6.32
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-05-12	Feet below surface:	5.85
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-04-14	Feet below surface:	5.01
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-03-17	Feet below surface:	4.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-02-17	Feet below surface:	5.12
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-01-17	Feet below surface:	5.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-12-16	Feet below surface:	5.29
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-11-18	Feet below surface:	5.41
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-10-14	Feet below surface:	6.55
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-09-16	Feet below surface:	6.51
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-08-12	Feet below surface:	6.37
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-07-15	Feet below surface:	6.06
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-06-17	Feet below surface:	5.65
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-05-13	Feet below surface:	5.53
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-04-15	Feet below surface:	5.33
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-03-18	Feet below surface:	5.23
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-02-12	Feet below surface:	4.95
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-01-15	Feet below surface:	4.87
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-12-18	Feet below surface:	5.25
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1939-11-13	Feet below surface:	5.31
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-10-16	Feet below surface:	5.53
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-09-15	Feet below surface:	5.99
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-08-14	Feet below surface:	6.03
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-07-14	Feet below surface:	5.79
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-06-16	Feet below surface:	5.58
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-05-16	Feet below surface:	5.33
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-05-15	Feet below surface:	5.31
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-04-14	Feet below surface:	5.17
Feet to sea level:	Not Reported	Note:	Not Reported

I21
SSE
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000002231**

State Well #:	10S03W01Z004S	Station ID:	10316
Well Name:	Not Reported	Basin Name:	Lower San Luis Rey Valley
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

G22
SE
1/2 - 1 Mile
Lower

FED USGS **USGS40000132490**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010S003W01Z001S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	21	Level reading date:	1915-10-10
Feet below surface:	0.85	Feet to sea level:	Not Reported
Note:	Not Reported		

Level reading date:	1915-08-02	Feet below surface:	1.05
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1914-08-19	Feet below surface:	3.55
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1914-05-09	Feet below surface:	1.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1914-04-25	Feet below surface:	1.55
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1914-03-01	Feet below surface:	1.22
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1914-01-23	Feet below surface:	1.22
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1913-12-09	Feet below surface:	1.22
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1913-06-13	Feet below surface:	3.88
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1913-05-07	Feet below surface:	1.47
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1913-04-18	Feet below surface:	1.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1913-02-20	Feet below surface:	1.22
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1913-01-02	Feet below surface:	1.13
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1912-12-18	Feet below surface:	1.53
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1912-10-30	Feet below surface:	1.13
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1912-07-20	Feet below surface:	3.72
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1912-07-11	Feet below surface:	1.72
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1912-06-25	Feet below surface:	1.47
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1912-05-22	Feet below surface:	1.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1912-04-12	Feet below surface:	0.38
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1912-04-09	Feet below surface:	1.13
Feet to sea level:	Not Reported	Note:	Not Reported

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

H23
SE
1/2 - 1 Mile
Lower

FED USGS **USGS40000132500**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010S003W01Z002S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1927-09-25
Feet below surface:	11.23	Feet to sea level:	Not Reported
Note:	Not Reported		

J24
SSW
1/2 - 1 Mile
Lower

FED USGS **USGS40000132470**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010S003W01Z003S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	2	Level reading date:	1930-01-16
Feet below surface:	4.05	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1929-09-28	Feet below surface:	5.05
Feet to sea level:	Not Reported	Note:	Not Reported

J25
SSW
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000002225**

State Well #:	10S03W01Z003S	Station ID:	10315
Well Name:	Not Reported	Basin Name:	Lower San Luis Rey Valley
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

K26
South
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000002218**

State Well #:	10S03W01P002S	Station ID:	10313
Well Name:	Not Reported	Basin Name:	Lower San Luis Rey Valley
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

K27
South
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000002038**

Well ID:	10S03W01P002S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	10S03W01P002S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=10S03W01P002S&store_num=		
GeoTracker Data:	Not Reported		

K28
South
1/2 - 1 Mile
Lower

FED USGS **USGS40000132455**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010S003W01P002S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19630101	Well Depth:	77
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1966-07-19
Feet below surface:	57.3	Feet to sea level:	Not Reported
Note:	The site was being pumped.		

K29
South
1/2 - 1 Mile
Lower

CA WELLS **CAUSGSN00011808**

Well ID:	USGS-331955117085501	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-331955117085501	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-331955117085501&store_num=		
GeoTracker Data:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

L30
ESE
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000002256**

State Well #:	10S02W06F001S	Station ID:	31630
Well Name:	Not Reported	Basin Name:	Not Reported
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

M31
South
1/2 - 1 Mile
Lower

FED USGS **USGS40000132454**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010S003W01P003S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	72
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1966-07-01
Feet below surface:	49.00	Feet to sea level:	Not Reported
Note:	Not Reported		

L32
ESE
1/2 - 1 Mile
Lower

FED USGS **USGS40000132518**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010S002W06F002S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19260101	Well Depth:	106
Well Depth Units:	ft	Well Hole Depth:	106
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	111	Level reading date:	1978-04-19
Feet below surface:	6.71	Feet to sea level:	Not Reported
Note:	Not Reported		

Level reading date:	1978-03-15	Feet below surface:	8.44
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1978-03-08	Feet below surface:	7.76
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-01-27	Feet below surface:	7.52
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-12-20	Feet below surface:	10.96
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-11-17	Feet below surface:	12.19
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-09-26	Feet below surface:	14.04
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1977-08-25	Feet below surface:	10.63
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-07-22	Feet below surface:	13.83
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1977-06-09	Feet below surface:	11.10
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1977-04-22	Feet below surface:	7.45
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-03-23	Feet below surface:	7.34
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-02-03	Feet below surface:	7.34
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-12-17	Feet below surface:	8.24
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-11-19	Feet below surface:	8.74
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-10-08	Feet below surface:	12.63
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1976-09-03	Feet below surface:	15.80
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1976-07-29	Feet below surface:	14.72
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1976-06-16	Feet below surface:	12.36
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1976-03-30	Feet below surface:	7.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-03-04	Feet below surface:	7.36
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-01-21	Feet below surface:	9.05
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1975-12-10	Feet below surface:	9.58
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1975-11-06	Feet below surface:	11.64
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1975-09-26	Feet below surface:	11.85
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1975-08-26	Feet below surface:	11.35
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1975-07-29	Feet below surface:	16.49
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1975-05-22	Feet below surface:	7.87
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1975-04-22	Feet below surface:	7.79
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1975-03-10	Feet below surface:	8.46
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1975-01-29	Feet below surface:	9.88
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1973-03-23	Feet below surface:	7.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1972-09-14	Feet below surface:	16.31
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1972-04-20	Feet below surface:	13.37
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1971-10-27	Feet below surface:	13.93
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1971-10-21	Feet below surface:	13.91
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1971-04-01	Feet below surface:	10.66
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1970-11-13	Feet below surface:	11.98
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1970-03-12	Feet below surface:	7.28
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1969-10-25	Feet below surface:	9.41
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1969-05-13	Feet below surface:	7.33
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1969-04-08	Feet below surface:	7.19
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1969-03-11	Feet below surface:	6.92
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1968-10-31	Feet below surface:	16.20
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1967-10-18	Feet below surface:	16.70
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1967-05-15	Feet below surface:	14.01
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1967-02-10	Feet below surface:	19.12
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1966-11-14	Feet below surface:	30.17
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1966-10-05	Feet below surface:	33.02
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1966-08-11	Feet below surface:	Not Reported
Feet to sea level:	Not Reported		
Note:	An obstruction was encountered in the well above the water surface (no water level recorded).		
Level reading date:	1966-05-11	Feet below surface:	45.80
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1966-04-12	Feet below surface:	31.84
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1966-03-07	Feet below surface:	34.16
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1966-02-07	Feet below surface:	36.44
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1966-01-12	Feet below surface:	38.76
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-12-13	Feet below surface:	43.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-07-06	Feet below surface:	57.90
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1965-06-07	Feet below surface:	51.10
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1965-05-19	Feet below surface:	40.05
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-05-04	Feet below surface:	39.89
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-03-30	Feet below surface:	40.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-03-01	Feet below surface:	42.53
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-02-18	Feet below surface:	49.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1965-01-25	Feet below surface:	45.33
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1964-12-23	Feet below surface:	44.52

Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1964-11-17	Feet below surface:	43.28
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1964-08-17	Feet below surface:	Not Reported
Feet to sea level:	Not Reported		
Note:	The site was dry (no water level recorded).		
Level reading date:	1964-05-11	Feet below surface:	40.18
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1964-02-14	Feet below surface:	43.42
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1963-11-18	Feet below surface:	45.12
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1963-05-15	Feet below surface:	37.24
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1963-02-25	Feet below surface:	28.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1962-11-14	Feet below surface:	37.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1962-08-13	Feet below surface:	Not Reported
Feet to sea level:	Not Reported		
Note:	The site was dry (no water level recorded).		
Level reading date:	1962-05-17	Feet below surface:	34.55
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1962-02-15	Feet below surface:	38.67
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1961-11-14	Feet below surface:	42.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1961-02-15	Feet below surface:	30.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1960-11-16	Feet below surface:	32.67
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1960-02-19	Feet below surface:	20.97
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1959-11-20	Feet below surface:	21.73
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1959-08-26	Feet below surface:	18.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1959-05-27	Feet below surface:	12.64
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1959-02-25	Feet below surface:	10.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1958-11-28	Feet below surface:	12.86

Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1958-08-27	Feet below surface:	10.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1958-05-29	Feet below surface:	9.72
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1958-02-25	Feet below surface:	17.67
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1957-11-27	Feet below surface:	22.54
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1957-02-25	Feet below surface:	17.78
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1956-11-19	Feet below surface:	18.83
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1956-08-28	Feet below surface:	15.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1956-05-16	Feet below surface:	9.08
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1956-02-15	Feet below surface:	9.27
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1955-12-05	Feet below surface:	16.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1955-08-15	Feet below surface:	14.18
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1955-06-16	Feet below surface:	9.57
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1955-02-25	Feet below surface:	9.12
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1954-11-12	Feet below surface:	13.52
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1954-08-31	Feet below surface:	10.52
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1954-05-14	Feet below surface:	8.98
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1954-02-23	Feet below surface:	8.64
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1953-12-02	Feet below surface:	13.96
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1953-11-19	Feet below surface:	14.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1952-11-17	Feet below surface:	9.07
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1952-04-21	Feet below surface:	7.98
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1952-01-11	Feet below surface:	8.63
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-10-08	Feet below surface:	13.81
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-07-17	Feet below surface:	9.84
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-04-05	Feet below surface:	8.13
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-01-03	Feet below surface:	8.93
Feet to sea level:	Not Reported	Note:	Not Reported

L33
ESE **FED USGS** **USGS40000132519**
1/2 - 1 Mile
Lower

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010S002W06F006S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19260101	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

L34
ESE **CA WELLS** **CAUSGSN00002399**
1/2 - 1 Mile
Lower

Well ID:	USGS-332018117080702	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-332018117080702	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-332018117080702&store_num=		
GeoTracker Data:	Not Reported		

L35
ESE **CA WELLS** **CAUSGSN00010579**
1/2 - 1 Mile
Lower

Well ID:	USGS-332018117080701	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-332018117080701	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-332018117080701&store_num=		

GeoTracker Data: Not Reported

L36
ESE
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000002261**

State Well #:	10S02W06F007S	Station ID:	31631
Well Name:	Not Reported	Basin Name:	Upper San Luis Rey Valley
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

L37
ESE
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000022427**

Well ID:	10S02W06F002S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	10S02W06F002S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=10S02W06F002S&store_num=		
GeoTracker Data:	Not Reported		

L38
ESE
1/2 - 1 Mile
Lower

FED USGS **USGS40000132515**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010S002W06F005S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

M39
SSW
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000002217**

State Well #:	10S03W01P003S	Station ID:	30560
Well Name:	Not Reported	Basin Name:	Lower San Luis Rey Valley
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

N40
East
1/2 - 1 Mile
Higher

CA WELLS **9372**

Seq:	9372	Prim sta c:	09S/02W-31P03 S
Frds no:	3700783001	County:	37
District:	67	User id:	37C
System no:	3700783	Water type:	G
Source nam:	RICE CANYON WELL	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	332046.0	Longitude:	1170801.0
Precision:	3	Status:	AR
Comment 1:	9256 PALA RD., PALA CA 92059	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	3700783	System nam:	Hodge Brothers Dairy
Hqname:	Not Reported	Address:	Not Reported
City:	Not Reported	State:	Not Reported
Zip:	Not Reported	Zip ext:	Not Reported
Pop serv:	0	Connection:	0
Area serve:	Not Reported		

N41
East
1/2 - 1 Mile
Higher

CA WELLS **9499**

Seq:	9499	Prim sta c:	09W/02W-31P03 S
Frds no:	3700783002	County:	37
District:	67	User id:	37C
System no:	3700783	Water type:	G
Source nam:	RICE CANYON WELL	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	332046.0	Longitude:	1170801.0
Precision:	3	Status:	AR
Comment 1:	9256 PALA RD., PALA CA 92059	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	3700783	System nam:	Hodge Brothers Dairy
Hqname:	Not Reported	Address:	Not Reported
City:	Not Reported	State:	Not Reported
Zip:	Not Reported	Zip ext:	Not Reported
Pop serv:	0	Connection:	0
Area serve:	Not Reported		

K42
South
1/2 - 1 Mile
Lower

FED USGS **USGS40000132443**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010S003W01P001S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	100
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	5	Level reading date:	1973-03-22
Feet below surface:	8.08	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1972-09-14	Feet below surface:	19.22
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1971-10-07	Feet below surface:	43.37
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1966-07-19	Feet below surface:	65.77
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1964-10-28	Feet below surface:	61.62
Feet to sea level:	Not Reported		
Note:	Other conditions existed that would affect the measured water level.		

K43
South
1/2 - 1 Mile
Lower

CA WELLS **CAUSGSN00003485**

Well ID:	USGS-331952117085501	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-331952117085501	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-331952117085501&store_num=		
GeoTracker Data:	Not Reported		

K44
South
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000002210**

State Well #:	10S03W01P001S	Station ID:	10312
Well Name:	Not Reported	Basin Name:	Lower San Luis Rey Valley
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

O45
ESE
1/2 - 1 Mile
Lower

FED USGS **USGS40000132526**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010S002W06F004S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

O46
ESE **FED USGS** **USGS40000132517**
1/2 - 1 Mile
Lower

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010S002W06F007S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19780501	Well Depth:	80
Well Depth Units:	ft	Well Hole Depth:	80
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	58	Level reading date:	1985-12-26
Feet below surface:	8.88	Feet to sea level:	Not Reported
Note:	Not Reported		

Level reading date:	1985-10-17	Feet below surface:	11.64
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-08-14	Feet below surface:	9.52
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-06-06	Feet below surface:	8.71
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-05-01	Feet below surface:	8.64
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-02-11	Feet below surface:	8.08
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-11-06	Feet below surface:	9.12
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-08-29	Feet below surface:	8.34
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-06-25	Feet below surface:	3.49
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-04-30	Feet below surface:	7.85
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-02-15	Feet below surface:	4.64
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-12-08	Feet below surface:	7.60

Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-10-18	Feet below surface:	4.35
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-08-29	Feet below surface:	5.53
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-07-08	Feet below surface:	6.74
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-04-25	Feet below surface:	7.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-02-25	Feet below surface:	7.77
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-12-15	Feet below surface:	7.42
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-10-18	Feet below surface:	7.70
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-08-24	Feet below surface:	0.65
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-07-02	Feet below surface:	5.91
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-04-13	Feet below surface:	7.58
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-03-02	Feet below surface:	7.68
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-11-25	Feet below surface:	6.91
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-10-16	Feet below surface:	7.17
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-09-16	Feet below surface:	7.59
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-08-07	Feet below surface:	5.32
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-07-10	Feet below surface:	7.13
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-06-03	Feet below surface:	7.02
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-04-07	Feet below surface:	7.01
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-03-11	Feet below surface:	7.04
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-02-18	Feet below surface:	7.13
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1981-01-28	Feet below surface:	7.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-12-09	Feet below surface:	7.05
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-11-03	Feet below surface:	7.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-10-08	Feet below surface:	7.09
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-09-04	Feet below surface:	6.54
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-07-29	Feet below surface:	6.63
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-06-25	Feet below surface:	6.68
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-05-14	Feet below surface:	7.27
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-03-31	Feet below surface:	6.79
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-02-05	Feet below surface:	7.38
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1979-12-27	Feet below surface:	8.14
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1979-11-16	Feet below surface:	8.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1979-10-17	Feet below surface:	8.42
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1979-09-12	Feet below surface:	8.48
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1979-08-14	Feet below surface:	8.45
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1979-07-18	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1979-06-13	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	The site was being pumped.
Level reading date:	1979-05-08	Feet below surface:	7.78
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1979-04-11	Feet below surface:	7.78
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1979-03-20	Feet below surface:	7.79
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1979-02-05	Feet below surface:	7.96
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1979-01-04	Feet below surface:	8.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-11-15	Feet below surface:	8.21
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-10-11	Feet below surface:	8.46
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-09-07	Feet below surface:	7.97
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-07-20	Feet below surface:	19.37
Feet to sea level:	Not Reported	Note:	The site was being pumped.

O47
ESE **CA WELLS** **CAUSGSN00019139**
1/2 - 1 Mile
Lower

Well ID:	USGS-332018117080401	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-332018117080401	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-332018117080401&store_num=		
GeoTracker Data:	Not Reported		

O48
ESE **FED USGS** **USGS40000132511**
1/2 - 1 Mile
Lower

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010S002W06F001S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	102
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	209	Level reading date:	1978-03-15
Feet below surface:	6.41	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1977-09-26	Feet below surface:	9.50
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1977-03-23	Feet below surface:	5.68
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1976-07-29	Feet below surface:	9.37
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		

Level reading date:	1976-03-30	Feet below surface:	5.54
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1975-06-16	Feet below surface:	7.43
Feet to sea level:	Not Reported		
Note:	A nearby site that taps the same aquifer was being pumped.		
Level reading date:	1972-04-20	Feet below surface:	11.07
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1971-10-27	Feet below surface:	11.63
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1967-02-14	Feet below surface:	17.12
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1967-02-01	Feet below surface:	17.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1953-12-02	Feet below surface:	12.76
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1953-11-19	Feet below surface:	13.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1952-11-17	Feet below surface:	7.69
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1952-04-21	Feet below surface:	6.84
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1952-02-04	Feet below surface:	7.69
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1952-01-11	Feet below surface:	7.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-11-26	Feet below surface:	14.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-10-15	Feet below surface:	13.95
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-10-08	Feet below surface:	12.58
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-09-15	Feet below surface:	12.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-08-15	Feet below surface:	10.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-07-17	Feet below surface:	8.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-06-16	Feet below surface:	7.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-05-15	Feet below surface:	7.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-04-14	Feet below surface:	7.15

Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-04-05	Feet below surface:	6.94
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-03-15	Feet below surface:	7.15
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-02-16	Feet below surface:	7.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-01-13	Feet below surface:	7.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1951-01-03	Feet below surface:	7.54
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-12-15	Feet below surface:	9.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-11-16	Feet below surface:	11.05
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-10-14	Feet below surface:	10.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-10-09	Feet below surface:	10.66
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-09-16	Feet below surface:	9.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-08-19	Feet below surface:	8.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-07-15	Feet below surface:	7.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-07-10	Feet below surface:	7.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-06-17	Feet below surface:	7.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-05-15	Feet below surface:	7.05
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-04-15	Feet below surface:	7.05
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-04-03	Feet below surface:	6.85
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-03-18	Feet below surface:	6.18
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-02-18	Feet below surface:	6.85
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1950-01-14	Feet below surface:	6.60
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1950-01-03	Feet below surface:	6.93
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-10-03	Feet below surface:	10.12
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-09-15	Feet below surface:	12.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-08-16	Feet below surface:	7.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-07-16	Feet below surface:	7.35
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-07-05	Feet below surface:	7.19
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-06-15	Feet below surface:	7.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-05-18	Feet below surface:	6.95
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-04-18	Feet below surface:	6.75
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-04-04	Feet below surface:	6.48
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-03-15	Feet below surface:	6.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-02-16	Feet below surface:	6.85
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-01-15	Feet below surface:	6.85
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1949-01-03	Feet below surface:	6.89
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-12-15	Feet below surface:	7.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-11-15	Feet below surface:	7.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-10-16	Feet below surface:	9.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-10-04	Feet below surface:	9.74
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-09-18	Feet below surface:	9.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-08-17	Feet below surface:	7.71
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-08-16	Feet below surface:	7.75
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1948-07-20	Feet below surface:	7.65
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-07-12	Feet below surface:	7.59
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-06-16	Feet below surface:	7.45
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-05-15	Feet below surface:	7.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-04-19	Feet below surface:	7.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-04-05	Feet below surface:	6.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-03-20	Feet below surface:	7.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-02-21	Feet below surface:	7.15
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-01-22	Feet below surface:	7.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1948-01-05	Feet below surface:	7.17
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-12-15	Feet below surface:	6.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-11-19	Feet below surface:	7.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-10-20	Feet below surface:	7.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-10-06	Feet below surface:	7.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-09-12	Feet below surface:	7.75
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-09-02	Feet below surface:	7.85
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-08-15	Feet below surface:	7.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-07-07	Feet below surface:	7.34
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-06-16	Feet below surface:	7.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-05-16	Feet below surface:	7.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-04-16	Feet below surface:	7.40
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1947-04-07	Feet below surface:	7.13
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-03-15	Feet below surface:	7.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-02-15	Feet below surface:	7.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-01-18	Feet below surface:	6.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1947-01-06	Feet below surface:	6.55
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-12-14	Feet below surface:	6.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-11-15	Feet below surface:	6.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-10-18	Feet below surface:	6.72
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-10-07	Feet below surface:	6.79
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-09-16	Feet below surface:	7.02
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-08-21	Feet below surface:	7.05
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-07-15	Feet below surface:	6.77
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-07-02	Feet below surface:	6.85
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-06-15	Feet below surface:	6.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-05-15	Feet below surface:	6.70
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-04-17	Feet below surface:	6.42
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-04-04	Feet below surface:	6.14
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-03-02	Feet below surface:	6.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-02-15	Feet below surface:	6.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-01-08	Feet below surface:	6.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1946-01-07	Feet below surface:	6.10
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1945-12-05	Feet below surface:	6.46
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-11-07	Feet below surface:	6.47
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-10-09	Feet below surface:	6.58
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-10-02	Feet below surface:	6.67
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-09-13	Feet below surface:	6.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-08-04	Feet below surface:	6.37
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-07-02	Feet below surface:	6.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-06-07	Feet below surface:	6.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-05-08	Feet below surface:	6.35
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-04-02	Feet below surface:	5.73
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-03-03	Feet below surface:	5.92
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-02-07	Feet below surface:	5.71
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-01-04	Feet below surface:	5.93
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1945-01-01	Feet below surface:	5.96
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-12-06	Feet below surface:	5.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-11-04	Feet below surface:	5.83
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-10-11	Feet below surface:	5.86
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-10-02	Feet below surface:	5.93
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-09-12	Feet below surface:	5.83
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-08-09	Feet below surface:	5.87
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-07-03	Feet below surface:	5.84
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1944-05-10	Feet below surface:	5.73
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-04-03	Feet below surface:	5.61
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-04-01	Feet below surface:	5.56
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-03-04	Feet below surface:	5.37
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-02-06	Feet below surface:	5.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-01-18	Feet below surface:	5.56
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1944-01-05	Feet below surface:	5.45
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-12-14	Feet below surface:	5.48
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-12-03	Feet below surface:	5.53
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-11-16	Feet below surface:	5.56
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-11-03	Feet below surface:	5.53
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-10-12	Feet below surface:	5.61
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-10-05	Feet below surface:	5.52
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-09-14	Feet below surface:	5.61
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-08-17	Feet below surface:	5.62
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-07-14	Feet below surface:	5.56
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-06-15	Feet below surface:	5.52
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-05-14	Feet below surface:	5.43
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-04-12	Feet below surface:	5.04
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-03-15	Feet below surface:	5.03
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1943-02-15	Feet below surface:	5.62
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1943-01-18	Feet below surface:	6.05
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-12-14	Feet below surface:	5.99
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-11-16	Feet below surface:	5.99
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-10-19	Feet below surface:	6.04
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-09-14	Feet below surface:	6.09
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-08-24	Feet below surface:	6.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-07-13	Feet below surface:	6.09
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-06-15	Feet below surface:	5.99
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-05-18	Feet below surface:	5.96
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-04-15	Feet below surface:	5.80
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-03-18	Feet below surface:	5.62
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-02-16	Feet below surface:	5.83
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1942-01-12	Feet below surface:	5.69
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-12-15	Feet below surface:	5.72
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-11-17	Feet below surface:	5.77
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-10-13	Feet below surface:	5.87
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-09-15	Feet below surface:	5.85
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-08-18	Feet below surface:	5.85
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-07-14	Feet below surface:	5.89
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-06-16	Feet below surface:	5.76
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-05-12	Feet below surface:	5.46
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1941-04-14	Feet below surface:	4.61
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-03-17	Feet below surface:	4.68
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-02-17	Feet below surface:	5.89
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1941-01-17	Feet below surface:	6.18
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-12-16	Feet below surface:	6.26
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-11-18	Feet below surface:	6.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-10-14	Feet below surface:	6.48
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-09-16	Feet below surface:	6.33
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-08-12	Feet below surface:	6.36
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-07-15	Feet below surface:	6.33
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-06-17	Feet below surface:	6.31
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-05-13	Feet below surface:	6.28
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-04-15	Feet below surface:	6.13
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-03-18	Feet below surface:	6.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-02-12	Feet below surface:	6.01
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1940-01-15	Feet below surface:	5.96
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-12-18	Feet below surface:	6.17
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-11-13	Feet below surface:	6.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-10-16	Feet below surface:	6.21
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-09-15	Feet below surface:	6.15
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-08-14	Feet below surface:	6.23
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1939-07-14	Feet below surface:	6.26
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-06-16	Feet below surface:	6.21
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-05-16	Feet below surface:	6.11
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-05-15	Feet below surface:	6.09
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-04-14	Feet below surface:	5.97
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-03-16	Feet below surface:	6.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-03-01	Feet below surface:	5.99
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-02-15	Feet below surface:	5.87
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1939-01-12	Feet below surface:	5.95
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1938-12-15	Feet below surface:	5.97
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1938-11-14	Feet below surface:	6.01
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1938-10-15	Feet below surface:	6.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1938-09-12	Feet below surface:	6.06
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1938-07-08	Feet below surface:	6.00
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1937-12-15	Feet below surface:	6.32
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1937-10-29	Feet below surface:	6.39
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1937-09-13	Feet below surface:	6.46
Feet to sea level:	Not Reported	Note:	Not Reported

O49
ESE
1/2 - 1 Mile
Lower

FED USGS **USGS40000132525**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	010S002W06F003S	Type:	Well
Description:	Not Reported	HUC:	18070303
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

O50
ESE
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000002262**

State Well #:	10S02W06F002S	Station ID:	11869
Well Name:	10S02W06F002S	Basin Name:	Upper San Luis Rey Valley
Well Use:	Observation	Well Type:	Single Well
Well Depth:	106	Well Completion Rpt #:	Not Reported

51
East
1/2 - 1 Mile
Higher

CA WELLS **CADWR9000002290**

State Well #:	10S02W06C002S	Station ID:	11868
Well Name:	Not Reported	Basin Name:	Upper San Luis Rey Valley
Well Use:	Unknown	Well Type:	Unknown
Well Depth:	0	Well Completion Rpt #:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92028	59	4

Federal EPA Radon Zone for SAN DIEGO County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 92028

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.650 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

Groundwater Ambient Monitoring & Assessment Program
State Water Resources Control Board
Telephone: 916-341-5577
The GAMA Program is Californias comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Heath Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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5326 Highway 76
5326 HIGHWAY 76
FALLBROOK, CA 92028

Inquiry Number: 6947084.2s
April 19, 2022

EDR Summary Radius Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527-21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

5326 HIGHWAY 76
FALLBROOK, CA 92028

COORDINATES

Latitude (North):	33.3438820 - 33ˆ 20' 37.97''
Longitude (West):	117.1493830 - 117ˆ 8' 57.77''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	486099.3
UTM Y (Meters):	3689228.5
Elevation:	305 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property:	TP
Source:	U.S. Geological Survey

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140603
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
5326 HIGHWAY 76
FALLBROOK, CA 92028

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	MEADOWOOD PA2-OPTION	NO ADDRESS - PROPERT	CERS	Higher	1 ft.
A2	PROPOSED MEADOWOOD D	5326 PALA ROAD	CERS	Higher	1 ft.
3	HORSE CREEK RIDGE TR	HORSE CREEK RANCH RD	NPDES, CIWQS, CERS	Lower	1 ft.
A4	MEADOWOOD PA2-OPTION	NO ADDRESS - PROPERT	ENVIROSTOR, SCH	Higher	1 ft.
5	EDISON CONSTRUCTION		US MINES	Higher	779, 0.148, NE
6	PALOMAR COMMUNITY CO	35090 HORSE RANCH CR	San Diego Co. HMMD, CERS HAZ WASTE, CERS, HWTS	Lower	1122, 0.213, WNW
7	RAINBOW FARM, LLC	0 PALA RD	SAN DIEGO CO. SAM, CPS-SLIC, CERS	Higher	1947, 0.369, NNW
8	HORSE RANCH CREEK RO	0 HORSE RANCH CREEK	CPS-SLIC, CERS	Lower	2090, 0.396, NW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR: A review of the ENVIROSTOR list, as provided by EDR, and dated 01/24/2022 has revealed that there is 1 ENVIROSTOR site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MEADOWOOD PA2-OPTION Facility Id: 60001970 Status: No Further Action	***NO ADDRESS - PROPERT***	***0 - 1/8 (0.000 mi.)***	***A4***	***9***

Lists of state and tribal leaking storage tanks

SAN DIEGO CO. SAM: A review of the SAN DIEGO CO. SAM list, as provided by EDR, and dated 03/23/2010 has revealed that there is 1 SAN DIEGO CO. SAM site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
RAINBOW FARM, LLC Case Number: H39682-001 Facility Status: Preliminary Assessment	***0 PALA RD***	***NNW 1/4 - 1/2 (0.369 mi.)***	***7***	***10***

CPS-SLIC: A review of the CPS-SLIC list, as provided by EDR, has revealed that there are 2 CPS-SLIC sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
RAINBOW FARM, LLC	***0 PALA RD***	***NNW 1/4 - 1/2 (0.369 mi.)***	***7***	***10***
Database: CPS-SLIC, Date of Government Version: 12/06/2021 Facility Status: Completed - Case Closed Global Id: T06019763926				

Lower Elevation	Address	Direction / Distance	Map ID	Page
HORSE RANCH CREEK RO	***0 HORSE RANCH CREEK***	***NW 1/4 - 1/2 (0.396 mi.)***	***8***	***10***
Database: CPS-SLIC, Date of Government Version: 12/06/2021 Facility Status: Completed - Case Closed Global Id: T10000002606				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

SCH: A review of the SCH list, as provided by EDR, and dated 01/24/2022 has revealed that there is 1 SCH site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MEADOWOOD PA2-OPTION	***NO ADDRESS - PROPERT***	***0 - 1/8 (0.000 mi.)***	***A4***	***9***
Facility Id: 60001970 Status: No Further Action				

CERS HAZ WASTE: A review of the CERS HAZ WASTE list, as provided by EDR, and dated 01/18/2022 has revealed that there is 1 CERS HAZ WASTE site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
PALOMAR COMMUNITY CO	***35090 HORSE RANCH CR***	***WNW 1/8 - 1/4 (0.213 mi.)***	***6***	***10***

Other Ascertainable Records

US MINES: A review of the US MINES list, as provided by EDR, has revealed that there is 1 US MINES site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
EDISON CONSTRUCTION		NE 1/8 - 1/4 (0.148 mi.)	5	9
Database: US MINES, Date of Government Version: 11/02/2021				

EXECUTIVE SUMMARY

Mine ID:: 0405902

NPDES: A review of the NPDES list, as provided by EDR, and dated 11/09/2021 has revealed that there is 1 NPDES site within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HORSE CREEK RIDGE TR	***HORSE CREEK RANCH RD***	***0 - 1/8 (0.000 mi.)***	***3***	***9***
Facility Status: Active				

CIWQS: A review of the CIWQS list, as provided by EDR, and dated 11/30/2021 has revealed that there is 1 CIWQS site within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HORSE CREEK RIDGE TR	***HORSE CREEK RANCH RD***	***0 - 1/8 (0.000 mi.)***	***3***	***9***

CERS: A review of the CERS list, as provided by EDR, and dated 01/18/2022 has revealed that there are 3 CERS sites within approximately 0.001 miles of the target property.

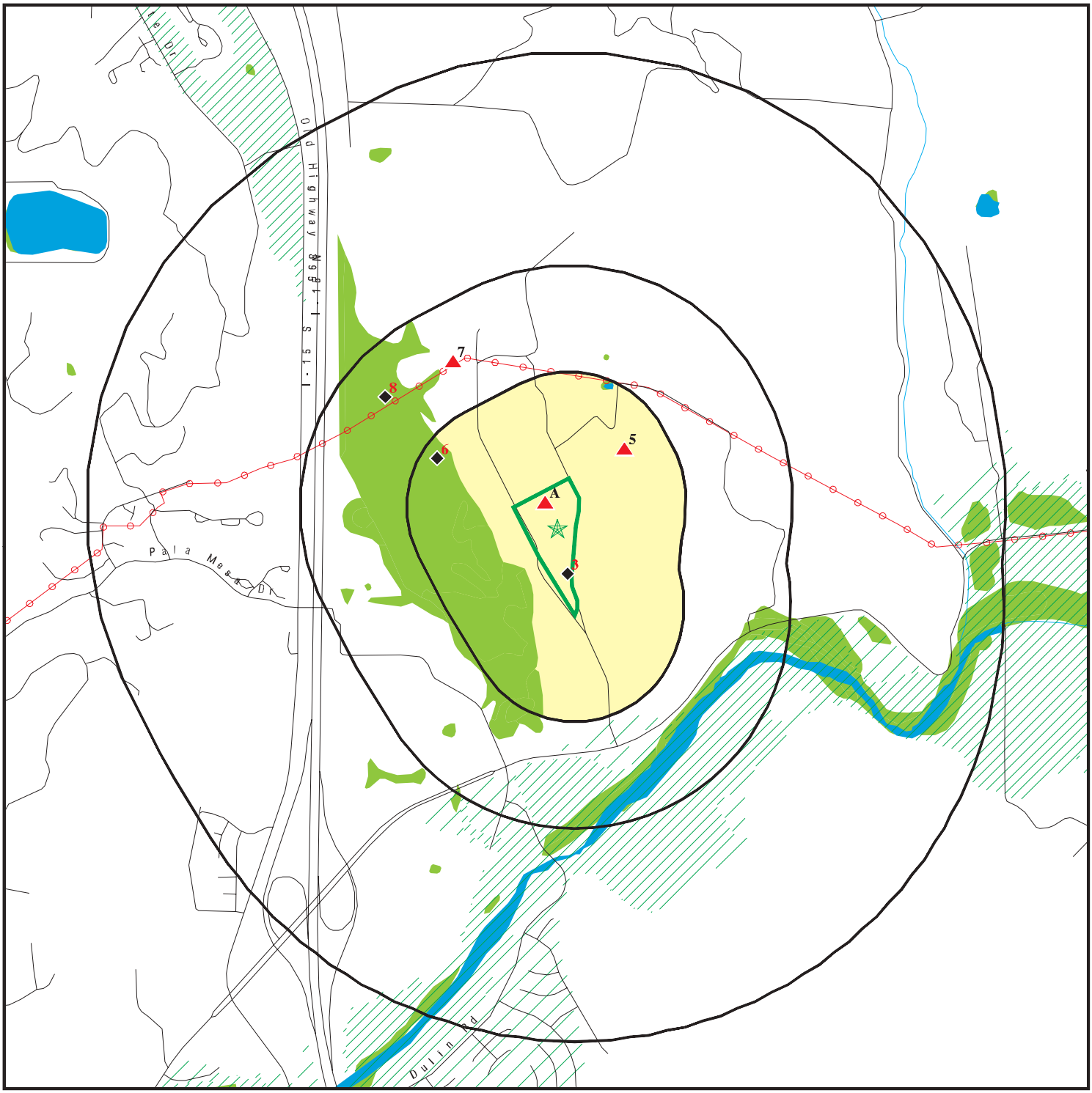
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MEADOWOOD PA2-OPTION	NO ADDRESS - PROPERT	0 - 1/8 (0.000 mi.)	A1	9
PROPOSED MEADOWOOD D	5326 PALA ROAD	0 - 1/8 (0.000 mi.)	A2	9

Lower Elevation	Address	Direction / Distance	Map ID	Page
HORSE CREEK RIDGE TR	***HORSE CREEK RANCH RD***	***0 - 1/8 (0.000 mi.)***	***3***	***9***

Count: 5 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BONSALL	1023265185	STATE ROUTE 76 HIGHWAY IMPROVEMENT	76	92028	FINDS
FALLBROOK	S127815556	HORSE CREEK RIDGE - EQUESTRIAN STA	SE CORNER OF PANKEY RD AND PAN	92028	CPS-SLIC
FALLBROOK	S125952655	PROPOSED MEADOWOOD DEVELOPMENT	5326 PALA ROAD	92028	CPS-SLIC
PALA	S110498377	SDG&E - PALA SUBSTATION	HWY 76 & PALA DEL NORTE 4 MI E	92059	San Diego Co. HMMD
PALA	S106060104	VULCAN MATERIALS CO	HWY 76 MAGEE RD	92059	San Diego Co. HMMD

OVERVIEW MAP - 6947084.2S



0 1/4 1/2 1 Miles

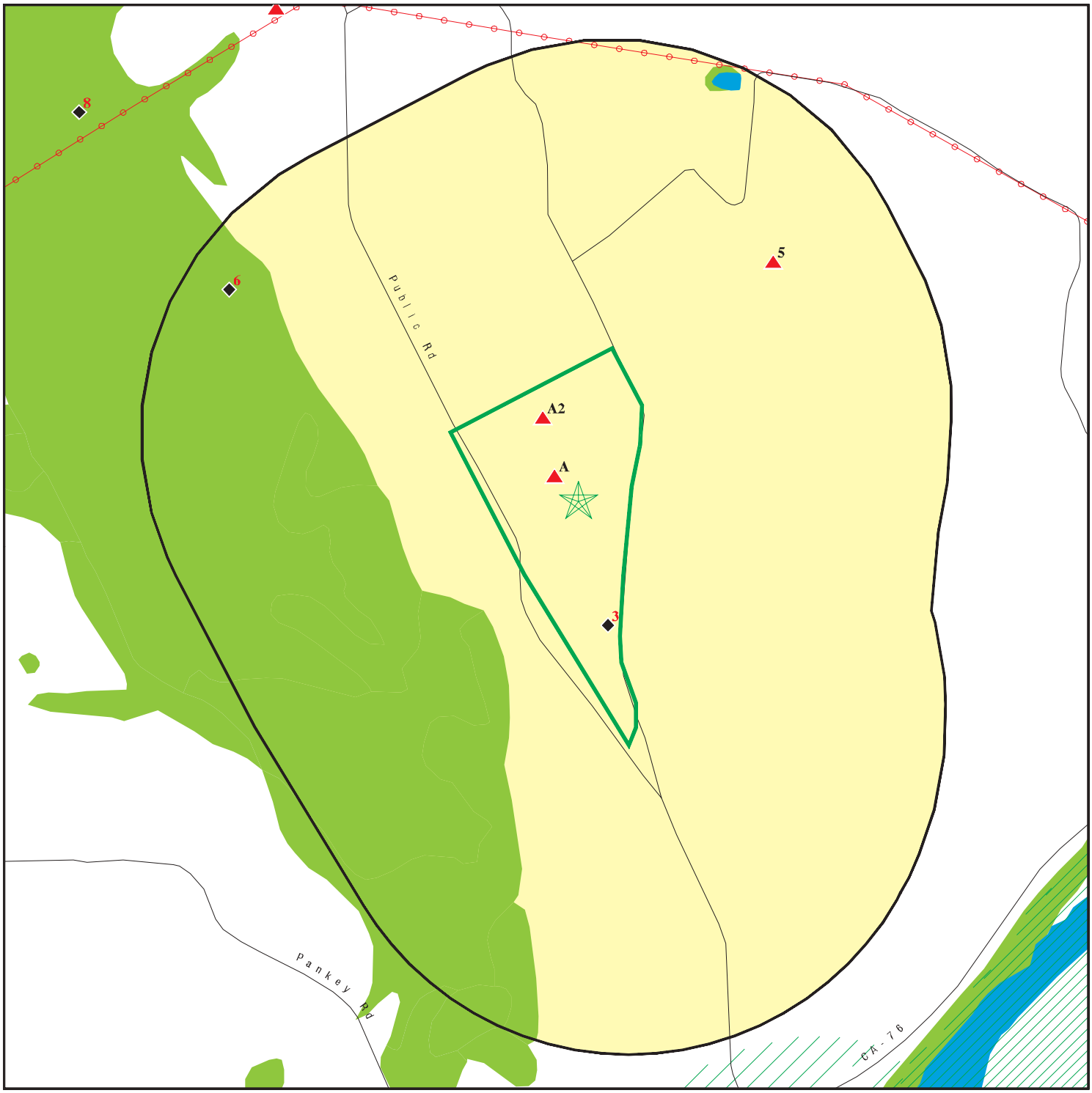
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 5326 Highway 76	CLIENT: Converse Consultants
ADDRESS: 5326 HIGHWAY 76 FALLBROOK CA 92028	CONTACT: Katherine Thomas
LAT/LONG: 33.343882 / 117.149383	INQUIRY #: 6947084.2s
	DATE: April 19, 2022 6:36 pm

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DETAIL MAP - 6947084.2S



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

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	DATE: April 19, 2022 6:36 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		0	0	0	0	NR	0
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
Lists of state- and tribal (Superfund) equivalent sites								
RESPONSE	1.000		0	0	0	0	NR	0
Lists of state- and tribal hazardous waste facilities								
ENVIROSTOR	1.000		1	0	0	0	NR	1
Lists of state and tribal landfills and solid waste disposal facilities								
SWF/LF	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
Lists of state and tribal leaking storage tanks								
LUST	0.500		0	0	0	NR	NR	0
SAN DIEGO CO. SAM	0.500		0	0	1	NR	NR	1
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	2	NR	NR	2
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		1	0	NR	NR	NR	1
CDL	0.001		0	NR	NR	NR	NR	0
San Diego Co. HMMD	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		0	1	NR	NR	NR	1
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
AQUEOUS FOAM	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
HIST UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	1	NR	NR	NR	1
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
ECHO	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		1	NR	NR	NR	NR	1
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
SAN DIEGO CO LOP	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001		1	NR	NR	NR	NR	1
CERS	0.001		3	NR	NR	NR	NR	3
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	7	2	3	0	0	12

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
A1 **< 1/8** **1 ft.**	**MEADOWOOD PA2-OPTION** **NO ADDRESS - PROPERTY UNDER DEVELOPMENT** **FALLBROOK, CA 92028**	**CERS**	**S123510108** **N/A**
Relative: Higher	**Click here for full text details**		
A2 **< 1/8** **1 ft.**	**PROPOSED MEADOWOOD DEVELOPMENT** **5326 PALA ROAD** **SAN DIEGO, CA**	**CERS**	**S119777548** **N/A**
Relative: Higher	**Click here for full text details**		
3 **< 1/8** **1 ft.**	**HORSE CREEK RIDGE TRACT 5338 PHASE 1** **HORSE CREEK RANCH RD NORTH OF RTE 76** **FALLBROOK, CA 92880**	**NPDES** **CIWQS** **CERS**	**S113881021** **N/A**
Relative: Lower	**Click here for full text details** **NPDES** Facility Status Active		
A4 **< 1/8** **1 ft.**	**MEADOWOOD PA2-OPTIONAL SCHOOL SITE** **NO ADDRESS - PROPERTY UNDER DEVELOPMENT** **FALLBROOK, CA 92028**	**ENVIROSTOR** **SCH**	**S115779973** **N/A**
Relative: Higher	**Click here for full text details** **ENVIROSTOR** Facility Id 60001970 Status No Further Action **SCH** Facility Id 60001970 Status No Further Action		
5 **NE** **1/8-1/4** **0.148 mi.** **779 ft.**	**EDISON CONSTRUCTION INC.** **SAN BERNARDINO (County), CA**	**US MINES**	**1018136863** **N/A**
Relative: Higher	**Click here for full text details** **US MINES** Mine ID: 0405902		

6
WNW
1/8-1/4
0.213 mi.
1122 ft.

Relative:
Lower

PALOMAR COMMUNITY COLLEGE NORTH EDUCATION CENTER
35090 HORSE RANCH CREEK RD
FALLBROOK, CA 92028

San Diego Co. HMMD
CERS HAZ WASTE
CERS
HWTS

S123522055
N/A

Click here for full text details

San Diego Co. HMMD
Record ID DEH2018-HUPFP-004627

7
NNW
1/4-1/2
0.369 mi.
1947 ft.

Relative:
Higher

RAINBOW FARM, LLC
0 PALA RD
FALLBROOK, CA 92028

SAN DIEGO CO. SAM
CPS-SLIC
CERS

S109118209
N/A

Click here for full text details

SAN DIEGO CO. SAM
Case Number H39682-001
Facility Status Preliminary Assessment

CPS-SLIC
Facility Status Completed - Case Closed
Global Id T06019763926

Click here to access the California GeoTracker records for this facility

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8
NW
1/4-1/2
0.396 mi.
2090 ft.

Relative:
Lower

HORSE RANCH CREEK ROAD
0 HORSE RANCH CREEK ROAD
FALLBROOK, CA 92028

CPS-SLIC
CERS

S110656441
N/A

Click here for full text details

CPS-SLIC
Facility Status Completed - Case Closed
Global Id T10000002606

Click here to access the California GeoTracker records for this facility

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CA	AQUEOUS FOAM	Former Fire Training Facility Assessments Listing	State Water Resources Control Board	02/20/2020	12/10/2021	02/25/2022
CA	AST	Aboveground Petroleum Storage Tank Facilities	California Environmental Protection Agency	07/06/2016	07/12/2016	09/19/2016
CA	BROWNFIELDS	Considered Brownfieds Sites Listing	State Water Resources Control Board	12/15/2021	12/16/2021	03/03/2022
CA	CA BOND EXP. PLAN	Bond Expenditure Plan	Department of Health Services	01/01/1989	07/27/1994	08/02/1994
CA	CA FID UST	Facility Inventory Database	California Environmental Protection Agency	10/31/1994	09/05/1995	09/29/1995
CA	CDL	Clandestine Drug Labs	Department of Toxic Substances Control	12/31/2019	01/20/2021	04/08/2021
CA	CERS	CalEPA Regulated Site Portal Data	California Environmental Protection Agency	01/18/2022	01/19/2022	04/08/2022
CA	CERS HAZ WASTE	CERS HAZ WASTE	CalEPA	01/18/2022	01/19/2022	04/11/2022
CA	CERS TANKS	California Environmental Reporting System (CERS) Tanks	California Environmental Protection Agency	01/18/2022	01/19/2022	04/11/2022
CA	CHMIRS	California Hazardous Material Incident Report System	Office of Emergency Services	12/31/2021	01/19/2022	04/08/2022
CA	CIWQS	California Integrated Water Quality System	State Water Resources Control Board	11/30/2021	11/30/2021	02/16/2022
CA	CORTESE	"Cortese" Hazardous Waste & Substances Sites List	CAL EPA/Office of Emergency Information	12/16/2021	12/16/2021	03/03/2022
CA	CPS-SLIC	Statewide SLIC Cases (GEOTRACKER)	State Water Resources Control Board	12/06/2021	12/07/2021	02/23/2022
CA	CUPA LIVERMORE-PLEASANTON	CUPA Facility Listing	Livermore-Pleasanton Fire Department	05/01/2019	05/14/2019	07/17/2019
CA	DEED	Deed Restriction Listing	DTSC and SWRCB	11/30/2021	11/30/2021	02/16/2022
CA	DRYCLEAN AVAQMD	Antelope Valley Air Quality Management District Drycleaner L	Antelope Valley Air Quality Management Distri	11/29/2021	11/29/2021	02/14/2022
CA	DRYCLEAN SOUTH COAST	South Coast Air Quality Management District Drycleaner Listi	South Coast Air Quality Management District	11/17/2021	11/18/2021	02/07/2022
CA	DRYCLEANERS	Cleaner Facilities	Department of Toxic Substance Control	08/27/2021	09/01/2021	11/19/2021
CA	EMI	Emissions Inventory Data	California Air Resources Board	12/31/2019	06/10/2021	08/27/2021
CA	ENF	Enforcement Action Listing	State Water Resoruces Control Board	11/10/2021	11/11/2021	02/03/2022
CA	ENVIROSTOR	EnviroStor Database	Department of Toxic Substances Control	01/24/2022	01/25/2022	04/13/2022
CA	Financial Assurance 1	Financial Assurance Information Listing	Department of Toxic Substances Control	01/13/2022	01/14/2022	04/08/2022
CA	Financial Assurance 2	Financial Assurance Information Listing	California Integrated Waste Management Board	11/18/2021	11/19/2021	02/07/2022
CA	HAULERS	Registered Waste Tire Haulers Listing	Integrated Waste Management Board	09/14/2021	11/11/2021	11/23/2021
CA	HAZNET	Facility and Manifest Data	California Environmental Protection Agency	12/31/2019	04/15/2020	07/02/2020
CA	HIST CAL-SITES	Calsites Database	Department of Toxic Substance Control	08/08/2005	08/03/2006	08/24/2006
CA	HIST CORTESE	Hazardous Waste & Substance Site List	Department of Toxic Substances Control	04/01/2001	01/22/2009	04/08/2009
CA	HIST UST	Hazardous Substance Storage Container Database	State Water Resources Control Board	10/15/1990	01/25/1991	02/12/1991
CA	HWP	EnviroStor Permitted Facilities Listing	Department of Toxic Substances Control	11/15/2021	11/15/2021	02/03/2022
CA	HWT	Registered Hazardous Waste Transporter Database	Department of Toxic Substances Control	01/03/2022	01/04/2022	03/18/2022
CA	HWTS	Hazardous Waste Tracking System	Department of Toxic Substances Control	07/13/2021	07/14/2021	10/06/2021
CA	ICE	ICE	Department of Toxic Subsances Control	11/15/2021	11/15/2021	02/03/2022
CA	LDS	Land Disposal Sites Listing (GEOTRACKER)	State Water Qualilty Control Board	12/06/2021	12/07/2021	02/23/2022
CA	LIENS	Environmental Liens Listing	Department of Toxic Substances Control	02/24/2022	02/25/2022	03/09/2022
CA	LUST	Leaking Underground Fuel Tank Report (GEOTRACKER)	State Water Resources Control Board	12/06/2021	12/07/2021	02/23/2022
CA	LUST REG 1	Active Toxic Site Investigation	California Regional Water Quality Control Boa	02/01/2001	02/28/2001	03/29/2001
CA	LUST REG 2	Fuel Leak List	California Regional Water Quality Control Boa	09/30/2004	10/20/2004	11/19/2004
CA	LUST REG 3	Leaking Underground Storage Tank Database	California Regional Water Quality Control Boa	05/19/2003	05/19/2003	06/02/2003
CA	LUST REG 4	Underground Storage Tank Leak List	California Regional Water Quality Control Boa	09/07/2004	09/07/2004	10/12/2004
CA	LUST REG 5	Leaking Underground Storage Tank Database	California Regional Water Quality Control Boa	07/01/2008	07/22/2008	07/31/2008
CA	LUST REG 6L	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	09/09/2003	09/10/2003	10/07/2003
CA	LUST REG 6V	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	06/07/2005	06/07/2005	06/29/2005
CA	LUST REG 7	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	02/26/2004	02/26/2004	03/24/2004
CA	LUST REG 8	Leaking Underground Storage Tanks	California Regional Water Quality Control Boa	02/14/2005	02/15/2005	03/28/2005
CA	LUST REG 9	Leaking Underground Storage Tank Report	California Regional Water Quality Control Boa	03/01/2001	04/23/2001	05/21/2001
CA	MCS	Military Cleanup Sites Listing (GEOTRACKER)	State Water Resources Control Board	12/06/2021	12/07/2021	02/23/2022
CA	MILITARY PRIV SITES	Military Privatized Sites (GEOTRACKER)	State Water Resources Control Board	12/06/2021	12/07/2021	02/23/2022

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CA	MILITARY UST SITES	Military UST Sites (GEOTRACKER)	State Water Resources Control Board	12/06/2021	12/07/2021	02/23/2022
CA	MINES	Mines Site Location Listing	Department of Conservation	12/06/2021	12/07/2021	02/23/2022
CA	MWMP	Medical Waste Management Program Listing	Department of Public Health	11/18/2021	11/30/2021	02/17/2022
CA	NON-CASE INFO	Non-Case Information Sites (GEOTRACKER)	State Water Resources Control Board	12/06/2021	12/07/2021	02/23/2022
CA	NOTIFY 65	Proposition 65 Records	State Water Resources Control Board	12/13/2021	12/14/2021	03/03/2022
CA	NPDES	NPDES Permits Listing	State Water Resources Control Board	11/09/2021	11/09/2021	01/27/2022
CA	OTHER OIL GAS	Other Oil & Gas Projects Sites (GEOTRACKER)	State Water Resources Control Board	12/06/2021	12/07/2021	02/23/2022
CA	PEST LIC	Pesticide Regulation Licenses Listing	Department of Pesticide Regulation	11/30/2021	11/30/2021	02/17/2022
CA	PFAS	PFAS Contamination Site Location Listing	State Water Resources Control Board	12/06/2021	12/07/2021	02/23/2022
CA	PROC	Certified Processors Database	Department of Conservation	11/29/2021	11/29/2021	02/11/2022
CA	PROD WATER PONDS	Produced Water Ponds Sites (GEOTRACKER)	State Water Resources Control Board	12/06/2021	12/07/2021	02/23/2022
CA	PROJECT	Project Sites (GEOTRACKER)	State Water Resources Control Board	12/06/2021	12/07/2021	02/23/2022
CA	RESPONSE	State Response Sites	Department of Toxic Substances Control	01/24/2022	01/25/2022	04/13/2022
CA	RGA LF	Recovered Government Archive Solid Waste Facilities List	Department of Resources Recycling and Recover		07/01/2013	01/13/2014
CA	RGA LUST	Recovered Government Archive Leaking Underground Storage Tan	State Water Resources Control Board		07/01/2013	12/30/2013
CA	SAMPLING POINT	Sampling Point ? Public Sites (GEOTRACKER)	State Water Resources Control Board	12/06/2021	12/07/2021	02/23/2022
CA	SAN FRANCISCO AST	Aboveground Storage Tank Site Listing	San Francisco County Department of Public Hea	11/04/2021	11/05/2021	01/24/2022
CA	SCH	School Property Evaluation Program	Department of Toxic Substances Control	01/24/2022	01/25/2022	04/13/2022
CA	SLIC REG 1	Active Toxic Site Investigations	California Regional Water Quality Control Boa	04/03/2003	04/07/2003	04/25/2003
CA	SLIC REG 2	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board San Fran	09/30/2004	10/20/2004	11/19/2004
CA	SLIC REG 3	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	05/18/2006	05/18/2006	06/15/2006
CA	SLIC REG 4	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Region Water Quality Control Board Los Angele	11/17/2004	11/18/2004	01/04/2005
CA	SLIC REG 5	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board Central	04/01/2005	04/05/2005	04/21/2005
CA	SLIC REG 6L	SLIC Sites	California Regional Water Quality Control Boa	09/07/2004	09/07/2004	10/12/2004
CA	SLIC REG 6V	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board, Victorv	05/24/2005	05/25/2005	06/16/2005
CA	SLIC REG 7	SLIC List	California Regional Quality Control Board, Co	11/24/2004	11/29/2004	01/04/2005
CA	SLIC REG 8	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Region Water Quality Control Board	04/03/2008	04/03/2008	04/14/2008
CA	SLIC REG 9	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	09/10/2007	09/11/2007	09/28/2007
CA	SPILLS 90	SPILLS90 data from FirstSearch	FirstSearch	06/06/2012	01/03/2013	02/22/2013
CA	SWEEPS UST	SWEEPS UST Listing	State Water Resources Control Board	06/01/1994	07/07/2005	08/11/2005
CA	SWF/LF (SWIS)	Solid Waste Information System	Department of Resources Recycling and Recover	11/08/2021	11/09/2021	01/28/2022
CA	SWRCY	Recycler Database	Department of Conservation	12/06/2021	12/07/2021	02/23/2022
CA	TOXIC PITS	Toxic Pits Cleanup Act Sites	State Water Resources Control Board	07/01/1995	08/30/1995	09/26/1995
CA	UIC	UIC Listing	Deaprtment of Conservation	12/03/2021	12/07/2021	02/24/2022
CA	UIC GEO	Underground Injection Control Sites (GEOTRACKER)	State Water Resource Control Board	12/06/2021	12/07/2021	02/23/2022
CA	UST	Active UST Facilities	SWRCB	12/06/2021	12/07/2021	02/23/2022
CA	UST CLOSURE	Proposed Closure of Underground Storage Tank (UST) Cases	State Water Resources Control Board	12/01/2021	12/07/2021	03/02/2022
CA	VCP	Voluntary Cleanup Program Properties	Department of Toxic Substances Control	01/24/2022	01/25/2022	04/13/2022
CA	WASTEWATER PITS	Oil Wastewater Pits Listing	RWQCB, Central Valley Region	02/11/2021	07/01/2021	09/29/2021
CA	WDR	Waste Discharge Requirements Listing	State Water Resources Control Board	12/06/2021	12/07/2021	02/23/2022
CA	WDS	Waste Discharge System	State Water Resources Control Board	06/19/2007	06/20/2007	06/29/2007
CA	WELL STIM PROJ	Well Stimulation Project (GEOTRACKER)	State Water Resources Control Board	12/06/2021	12/07/2021	02/23/2022
CA	WIP	Well Investigation Program Case List	Los Angeles Water Quality Control Board	07/03/2009	07/21/2009	08/03/2009
CA	WMUDS/SWAT	Waste Management Unit Database	State Water Resources Control Board	04/01/2000	04/10/2000	05/10/2000
US	2020 COR ACTION	2020 Corrective Action Program List	Environmental Protection Agency	09/30/2017	05/08/2018	07/20/2018
US	ABANDONED MINES	Abandoned Mines	Department of Interior	12/14/2021	12/15/2021	03/10/2022
US	BRS	Biennial Reporting System	EPA/NTIS	12/31/2019	03/02/2022	03/25/2022

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Energy	12/31/2020	11/30/2021	02/22/2022
US	COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	Environmental Protection Agency	01/12/2017	03/05/2019	11/11/2019
US	CONSENT	Superfund (CERCLA) Consent Decrees	Department of Justice, Consent Decree Library	12/31/2021	01/14/2022	03/25/2022
US	CORRACTS	Corrective Action Report	EPA	02/28/2022	03/02/2022	03/17/2022
US	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
US	DOCKET HWC	Hazardous Waste Compliance Docket Listing	Environmental Protection Agency	05/06/2021	05/21/2021	08/11/2021
US	DOD	Department of Defense Sites	USGS	06/07/2021	07/13/2021	03/09/2022
US	DOT OPS	Incident and Accident Data	Department of Transporation, Office of Pipeli	01/02/2020	01/28/2020	04/17/2020
US	Delisted NPL	National Priority List Deletions	EPA	01/25/2022	02/03/2022	02/22/2022
US	ECHO	Enforcement & Compliance History Information	Environmental Protection Agency	01/01/2022	01/04/2022	01/10/2022
US	EDR Hist Auto	EDR Exclusive Historical Auto Stations	EDR, Inc.			
US	EDR Hist Cleaner	EDR Exclusive Historical Cleaners	EDR, Inc.			
US	EDR MGP	EDR Proprietary Manufactured Gas Plants	EDR, Inc.			
US	EPA WATCH LIST	EPA WATCH LIST	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014
US	ERNS	Emergency Response Notification System	National Response Center, United States Coast	12/31/2021	03/01/2022	03/10/2022
US	FEDERAL FACILITY	Federal Facility Site Information listing	Environmental Protection Agency	05/25/2021	06/24/2021	09/20/2021
US	FEDLAND	Federal and Indian Lands	U.S. Geological Survey	04/02/2018	04/11/2018	11/06/2019
US	FEMA UST	Underground Storage Tank Listing	FEMA	10/14/2021	11/05/2021	02/01/2022
US	FINDS	Facility Index System/Facility Registry System	EPA	11/04/2021	11/22/2021	02/25/2022
US	FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA/Office of Prevention, Pesticides and Toxi	04/09/2009	04/16/2009	05/11/2009
US	FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA	04/09/2009	04/16/2009	05/11/2009
US	FUDS	Formerly Used Defense Sites	U.S. Army Corps of Engineers	10/26/2021	11/16/2021	02/08/2022
US	FUELS PROGRAM	EPA Fuels Program Registered Listing	EPA	11/15/2021	11/15/2021	02/01/2022
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	Department of Energy	07/26/2021	07/27/2021	10/22/2021
US	HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HIST FTTS INSP	FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HMIRS	Hazardous Materials Information Reporting System	U.S. Department of Transportation	12/15/2021	12/16/2021	03/10/2022
US	ICIS	Integrated Compliance Information System	Environmental Protection Agency	11/18/2016	11/23/2016	02/10/2017
US	IHS OPEN DUMPS	Open Dumps on Indian Land	Department of Health & Human Serivces, Indian	04/01/2014	08/06/2014	01/29/2015
US	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	04/28/2021	06/11/2021	09/07/2021
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	10/12/2021	11/15/2021	02/08/2022
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	05/28/2021	06/22/2021	09/20/2021
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	10/12/2021	11/15/2021	02/08/2022
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	10/12/2021	11/15/2021	02/08/2022
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	10/12/2021	11/15/2021	02/08/2022
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	10/12/2021	11/15/2021	02/08/2022
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	Environmental Protection Agency	10/12/2021	11/15/2021	02/08/2022
US	INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	Environmental Protection Agency	12/31/1998	12/03/2007	01/24/2008
US	INDIAN RESERV	Indian Reservations	USGS	12/31/2014	07/14/2015	01/10/2017
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	EPA, Region 1	10/14/2021	11/15/2021	02/08/2022
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA Region 10	10/12/2021	11/15/2021	02/08/2022
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 4	05/28/2021	06/22/2021	09/20/2021
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 5	04/06/2021	06/11/2021	09/07/2021
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 6	10/12/2021	11/15/2021	02/08/2022
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 7	10/12/2021	11/15/2021	02/08/2022
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 8	10/12/2021	11/15/2021	02/08/2022
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 9	10/12/2021	11/15/2021	02/08/2022

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	EPA, Region 1	07/27/2015	09/29/2015	02/18/2016
US	INDIAN VCP R7	Voluntary Cleanup Priority Lisitng	EPA, Region 7	03/20/2008	04/22/2008	05/19/2008
US	LEAD SMELTER 1	Lead Smelter Sites	Environmental Protection Agency	01/25/2022	02/03/2022	02/22/2022
US	LEAD SMELTER 2	Lead Smelter Sites	American Journal of Public Health	04/05/2001	10/27/2010	12/02/2010
US	LIENS 2	CERCLA Lien Information	Environmental Protection Agency	01/25/2022	02/03/2022	02/22/2022
US	LUCIS	Land Use Control Information System	Department of the Navy	11/15/2021	11/16/2021	02/08/2022
US	MINES MRDS	Mineral Resources Data System	USGS	04/06/2018	10/21/2019	10/24/2019
US	MINES VIOLATIONS	MSHA Violation Assessment Data	DOL, Mine Safety & Health Admi	03/21/2022	03/22/2022	03/25/2022
US	MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	07/29/2021	08/24/2021	11/19/2021
US	NPL	National Priority List	EPA	01/25/2022	02/03/2022	02/22/2022
US	NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
US	ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004
US	PADS	PCB Activity Database System	EPA	01/20/2022	01/20/2022	03/25/2022
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	09/13/2019	11/06/2019	02/10/2020
US	PCS	Permit Compliance System	EPA, Office of Water	07/14/2011	08/05/2011	09/29/2011
US	PCS ENF	Enforcement data	EPA	12/31/2014	02/05/2015	03/06/2015
US	PCS INACTIVE	Listing of Inactive PCS Permits	EPA	11/05/2014	01/06/2015	05/06/2015
US	PRP	Potentially Responsible Parties	EPA	01/25/2022	02/03/2022	02/25/2022
US	Proposed NPL	Proposed National Priority List Sites	EPA	01/25/2022	02/03/2022	02/22/2022
US	RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995
US	RADINFO	Radiation Information Database	Environmental Protection Agency	07/01/2019	07/01/2019	09/23/2019
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	02/28/2022	03/02/2022	03/17/2022
US	RCRA-LQG	RCRA - Large Quantity Generators	Environmental Protection Agency	02/28/2022	03/02/2022	03/17/2022
US	RCRA-SQG	RCRA - Small Quantity Generators	Environmental Protection Agency	02/28/2022	03/02/2022	03/17/2022
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	02/28/2022	03/02/2022	03/17/2022
US	RCRA-VSQG	RCRA - Very Small Quantity Generators (Formerly Conditionall	Environmental Protection Agency	02/28/2022	03/02/2022	03/17/2022
US	RMP	Risk Management Plans	Environmental Protection Agency	10/20/2021	11/05/2021	11/12/2021
US	ROD	Records Of Decision	EPA	01/25/2022	02/03/2022	02/22/2022
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	01/01/2017	02/03/2017	04/07/2017
US	SEMS	Superfund Enterprise Management System	EPA	01/25/2022	02/03/2022	02/22/2022
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	01/25/2022	02/03/2022	02/22/2022
US	SSTS	Section 7 Tracking Systems	EPA	01/19/2022	01/19/2022	04/11/2022
US	TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2018	08/14/2020	11/04/2020
US	TSCA	Toxic Substances Control Act	EPA	12/31/2016	06/17/2020	09/10/2020
US	UMTRA	Uranium Mill Tailings Sites	Department of Energy	08/30/2019	11/15/2019	01/28/2020
US	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (	EPA	10/12/2016	10/26/2016	02/03/2017
US	US AIRS MINOR	Air Facility System Data	EPA	10/12/2016	10/26/2016	02/03/2017
US	US BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	02/23/2022	03/10/2022	03/10/2022
US	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	11/16/2021	11/18/2021	02/08/2022
US	US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	11/19/2021	11/19/2021	02/14/2022
US	US FIN ASSUR	Financial Assurance Information	Environmental Protection Agency	12/13/2021	12/17/2021	03/17/2022
US	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	11/16/2021	11/18/2021	02/08/2022
US	US INST CONTROLS	Institutional Controls Sites List	Environmental Protection Agency	11/19/2021	11/19/2021	02/14/2022
US	US MINES	Mines Master Index File	Department of Labor, Mine Safety and Health A	11/02/2021	11/22/2021	02/14/2022
US	US MINES 2	Ferrous and Nonferrous Metal Mines Database Listing	USGS	05/06/2020	05/27/2020	08/13/2020
US	US MINES 3	Active Mines & Mineral Plants Database Listing	USGS	04/14/2011	06/08/2011	09/13/2011
US	UXO	Unexploded Ordnance Sites	Department of Defense	12/31/2020	01/11/2022	02/14/2022

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CT	CT MANIFEST	Hazardous Waste Manifest Data	Department of Energy & Environmental Protecti	11/11/2021	11/12/2021	02/01/2022
NJ	NJ MANIFEST	Manifest Information	Department of Environmental Protection	12/31/2018	04/10/2019	05/16/2019
NY	NY MANIFEST	Facility and Manifest Data	Department of Environmental Conservation	01/01/2019	10/29/2021	01/19/2022
PA	PA MANIFEST	Manifest Information	Department of Environmental Protection	06/30/2018	07/19/2019	09/10/2019
RI	RI MANIFEST	Manifest information	Department of Environmental Management	12/31/2020	11/30/2021	02/18/2022
WI	WI MANIFEST	Manifest Information	Department of Natural Resources	05/31/2018	06/19/2019	09/03/2019
US	AHA Hospitals	Sensitive Receptor: AHA Hospitals	American Hospital Association, Inc.			
US	Medical Centers	Sensitive Receptor: Medical Centers	Centers for Medicare & Medicaid Services			
US	Nursing Homes	Sensitive Receptor: Nursing Homes	National Institutes of Health			
US	Public Schools	Sensitive Receptor: Public Schools	National Center for Education Statistics			
US	Private Schools	Sensitive Receptor: Private Schools	National Center for Education Statistics			
CA	Daycare Centers	Sensitive Receptor: Licensed Facilities	Department of Social Services			
US	Flood Zones	100-year and 500-year flood zones	Emergency Management Agency (FEMA)			
US	NWI	National Wetlands Inventory	U.S. Fish and Wildlife Service			
CA	State Wetlands	Wetland Inventory	Department of Fish and Wildlife			
US	Topographic Map		U.S. Geological Survey			
US	Oil/Gas Pipelines		Endeavor Business Media			
US	Electric Power Transmission Line Data		Endeavor Business Media			

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

5326 HIGHWAY 76
5326 HIGHWAY 76
FALLBROOK, CA 92028

TARGET PROPERTY COORDINATES

Latitude (North):	33.343882 - 33ˆ 20’ 37.98’’
Longitude (West):	117.149383 - 117ˆ 8’ 57.78’’
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	486099.3
UTM Y (Meters):	3689228.5
Elevation:	305 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	12014832 BONSALL, CA
Version Date:	2018

EDR’s GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

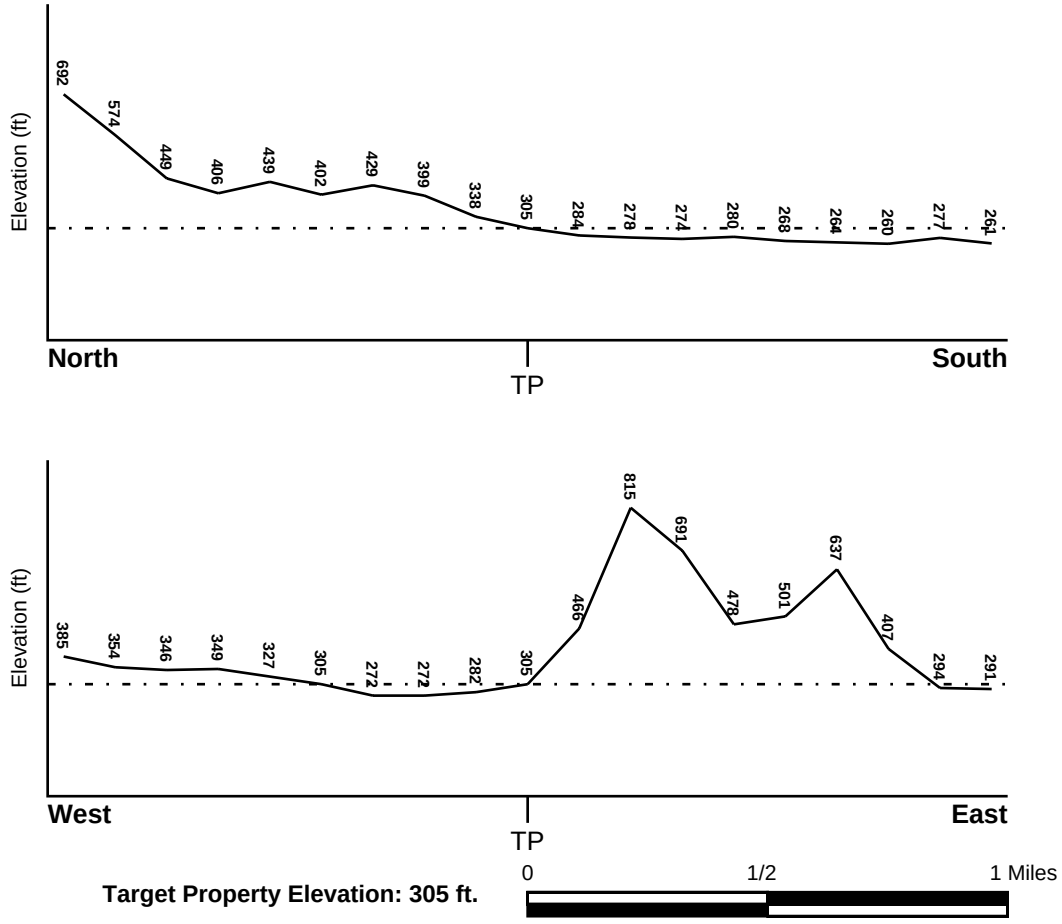
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General WSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06073C0485G	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06073C0481G	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
BONSALL	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

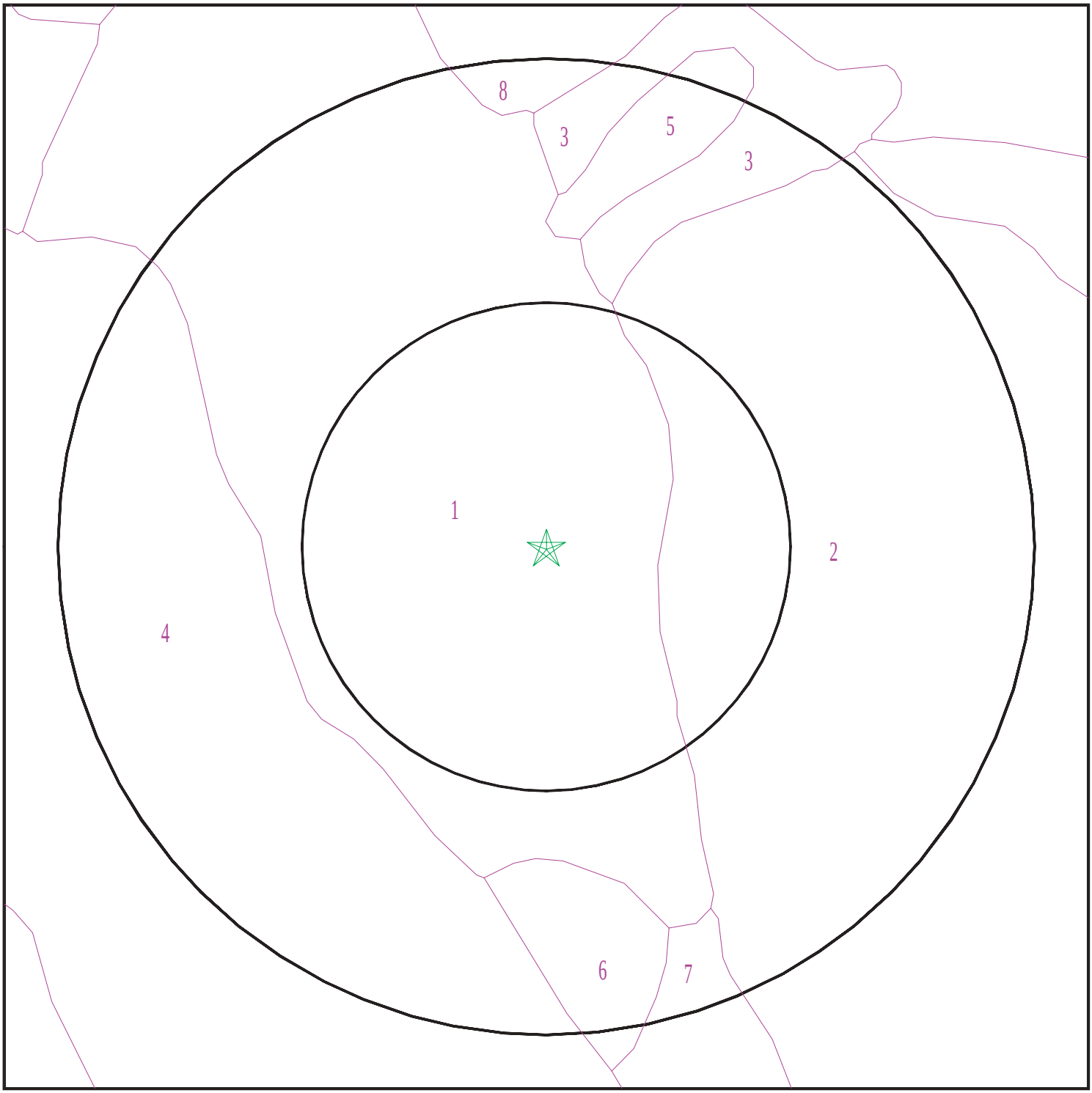
Era:	Mesozoic
System:	Cretaceous
Series:	Cretaceous granitic rocks
Code:	Kg *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Plutonic and Intrusive Rocks

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 6947084.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	5326 Highway 76	CLIENT:	Converse Consultants
ADDRESS:	5326 HIGHWAY 76 FALLBROOK CA 92028	CONTACT:	Katherine Thomas
LAT/LONG:	33.343882 / 117.149383	INQUIRY #:	6947084.2s
		DATE:	April 19, 2022 6:36 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: RAMONA

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.6
2	16 inches	59 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.6
3	59 inches	74 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.6

Soil Map ID: 2

Soil Component Name: CIENEBA

Soil Surface Texture: coarse sandy loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 5 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	coarse sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	Not reported	Max: Min:	Max: Min:
2	7 inches	11 inches	weathered bedrock	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	Not reported	Max: Min:	Max: Min:

Soil Map ID: 3

Soil Component Name: FALLBROOK

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:
2	5 inches	11 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:
3	11 inches	27 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:
4	27 inches	46 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:
5	46 inches	51 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:

Soil Map ID: 4

Soil Component Name: GRANGEVILLE

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 92 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 14	Max: 8.4 Min: 7.9
2	11 inches	59 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 42 Min: 14	Max: 8.4 Min: 7.9

Soil Map ID: 5

Soil Component Name: STEEP GULLIED LAND

Soil Surface Texture: variable

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class:
Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	59 inches	variable	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 6

Soil Component Name: RAMONA

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.6
2	9 inches	59 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.6
3	59 inches	74 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.6

Soil Map ID: 7

Soil Component Name: ARLINGTON

Soil Surface Texture: coarse sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	coarse sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 6.5 Min: 6.1
2	9 inches	33 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 6.5 Min: 6.1
3	44 inches	59 inches	coarse sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 6.5 Min: 6.1
4	33 inches	44 inches	coarse sandy loam, cemented	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 1.4 Min: 0.42	Max: 6.5 Min: 6.1

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 8

Soil Component Name: FALLBROOK

Soil Surface Texture: sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	1 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:
2	1 inches	24 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:
3	24 inches	27 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:
4	27 inches	31 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	USGS40000132508	1/4 - 1/2 Mile SSE
C6	USGS40000132512	1/2 - 1 Mile SE
C7	USGS40000132513	1/2 - 1 Mile SE
B8	USGS40000132498	1/2 - 1 Mile SSE
E10	USGS40000132487	1/2 - 1 Mile South
D12	USGS40000132491	1/2 - 1 Mile SSE
F16	USGS40000132507	1/2 - 1 Mile SE
I20	USGS40000132476	1/2 - 1 Mile SSE
G22	USGS40000132490	1/2 - 1 Mile SE
H23	USGS40000132500	1/2 - 1 Mile SE
J24	USGS40000132470	1/2 - 1 Mile SSW
K28	USGS40000132455	1/2 - 1 Mile South
M31	USGS40000132454	1/2 - 1 Mile South
L32	USGS40000132518	1/2 - 1 Mile ESE
L33	USGS40000132519	1/2 - 1 Mile ESE
L38	USGS40000132515	1/2 - 1 Mile ESE
K42	USGS40000132443	1/2 - 1 Mile South
O45	USGS40000132526	1/2 - 1 Mile ESE
O46	USGS40000132517	1/2 - 1 Mile ESE
O48	USGS40000132511	1/2 - 1 Mile ESE
O49	USGS40000132525	1/2 - 1 Mile ESE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

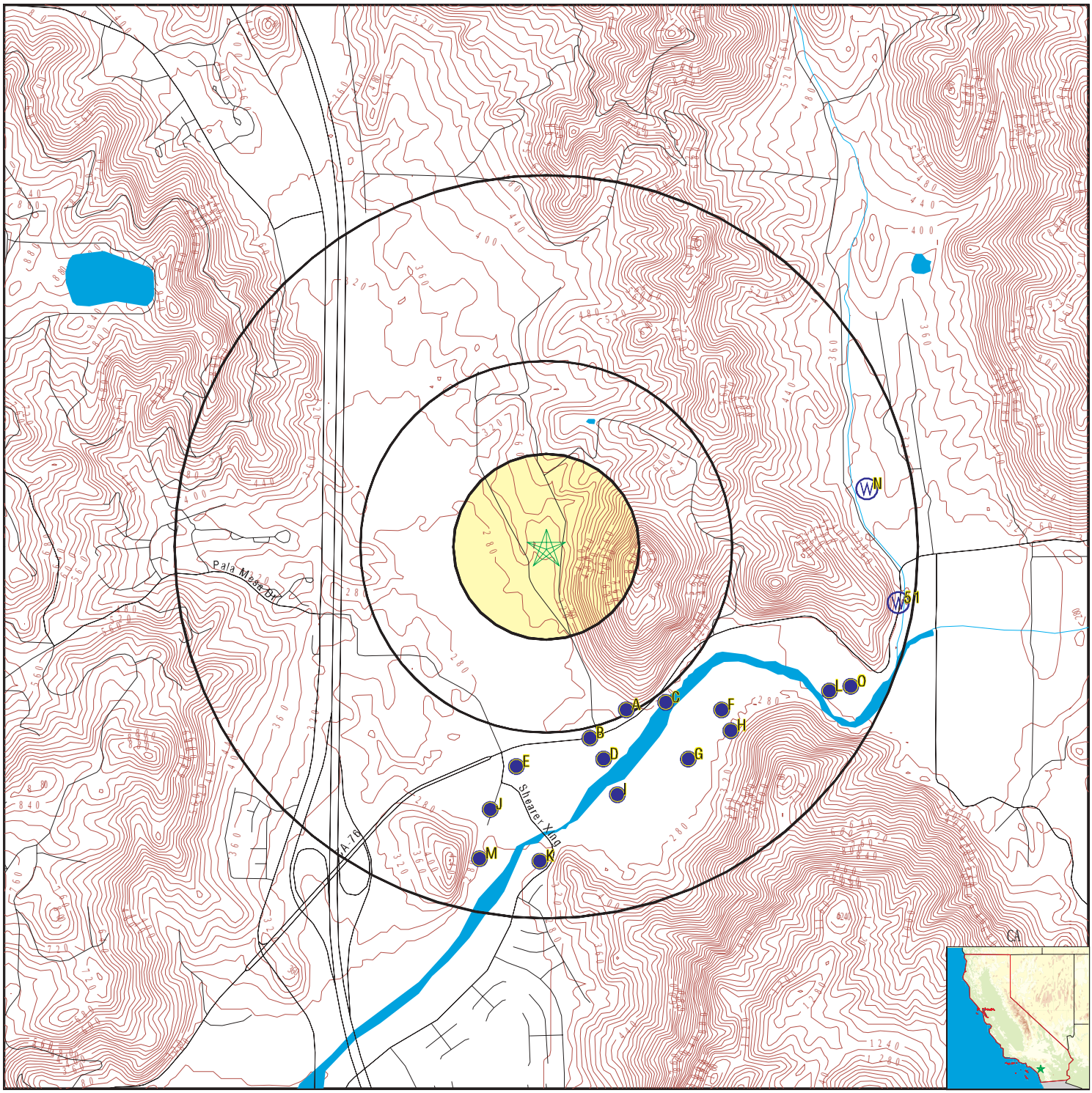
MAP ID	WELL ID	LOCATION FROM TP

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	CADWR9000002254	1/4 - 1/2 Mile SSE
B3	CADWR9000002245	1/2 - 1 Mile South
C4	CADWR9000002258	1/2 - 1 Mile SE
C5	CADWR9000002257	1/2 - 1 Mile SE
D9	CADWR9000002241	1/2 - 1 Mile SSE
E11	CAUSGSN00001570	1/2 - 1 Mile South
E13	CADWR9000002237	1/2 - 1 Mile South
E14	CADWR0000023558	1/2 - 1 Mile South
F15	CADWR9000002253	1/2 - 1 Mile SE
F17	CAUSGSN00006632	1/2 - 1 Mile SE
G18	CADWR9000002240	1/2 - 1 Mile SSE
H19	CADWR9000002247	1/2 - 1 Mile SE
I21	CADWR9000002231	1/2 - 1 Mile SSE
J25	CADWR9000002225	1/2 - 1 Mile SSW
K26	CADWR9000002218	1/2 - 1 Mile South
K27	CADWR0000002038	1/2 - 1 Mile South
K29	CAUSGSN00011808	1/2 - 1 Mile South
L30	CADWR9000002256	1/2 - 1 Mile ESE
L34	CAUSGSN00002399	1/2 - 1 Mile ESE
L35	CAUSGSN00010579	1/2 - 1 Mile ESE
L36	CADWR9000002261	1/2 - 1 Mile ESE
L37	CADWR0000022427	1/2 - 1 Mile ESE
M39	CADWR9000002217	1/2 - 1 Mile SSW
N40	9372	1/2 - 1 Mile East
N41	9499	1/2 - 1 Mile East
K43	CAUSGSN00003485	1/2 - 1 Mile South
K44	CADWR9000002210	1/2 - 1 Mile South
O47	CAUSGSN00019139	1/2 - 1 Mile ESE
O50	CADWR9000002262	1/2 - 1 Mile ESE
51	CADWR9000002290	1/2 - 1 Mile East

PHYSICAL SETTING SOURCE MAP - 6947084.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	5326 Highway 76	CLIENT:	Converse Consultants
ADDRESS:	5326 HIGHWAY 76 FALLBROOK CA 92028	CONTACT:	Katherine Thomas
LAT/LONG:	33.343882 / 117.149383	INQUIRY #:	6947084.2s
		DATE:	April 19, 2022 6:36 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
A1 **SSE** **1/4 - 1/2 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR9000002254**
A2 **SSE** **1/4 - 1/2 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132508**
B3 **South** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR9000002245**
C4 **SE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR9000002258**
C5 **SE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR9000002257**
C6 **SE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132512**
C7 **SE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132513**
B8 **SSE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132498**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
D9 **SSE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR9000002241**
E10 **South** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132487**
E11 **South** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CAUSGSN00001570**
D12 **SSE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132491**
E13 **South** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR9000002237**
E14 **South** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR0000023558**
F15 **SE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR9000002253**
F16 **SE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132507**
F17 **SE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CAUSGSN00006632**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
G18 **SSE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR9000002240**
H19 **SE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR9000002247**
I20 **SSE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132476**
I21 **SSE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR9000002231**
G22 **SE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132490**
H23 **SE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132500**
J24 **SSW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132470**
J25 **SSW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR9000002225**
K26 **South** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR9000002218**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
K27 **South** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR0000002038**
K28 **South** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132455**
K29 **South** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CAUSGSN00011808**
L30 **ESE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR9000002256**
M31 **South** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132454**
L32 **ESE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132518**
L33 **ESE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132519**
L34 **ESE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CAUSGSN00002399**
L35 **ESE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CAUSGSN00010579**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
L36 **ESE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR9000002261**
L37 **ESE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR0000022427**
L38 **ESE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132515**
M39 **SSW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR9000002217**
N40 **East** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**9372**
N41 **East** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**9499**
K42 **South** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132443**
K43 **South** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CAUSGSN00003485**
K44 **South** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR9000002210**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
O45 **ESE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132526**
O46 **ESE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132517**
O47 **ESE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CAUSGSN00019139**
O48 **ESE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132511**
O49 **ESE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**FED USGS**	**USGS40000132525**
O50 **ESE** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADWR9000002262**
51 **East** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADWR9000002290**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92028	59	4

Federal EPA Radon Zone for SAN DIEGO County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 92028

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.650 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW[R] Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

Groundwater Ambient Monitoring & Assessment Program
State Water Resources Control Board
Telephone: 916-341-5577
The GAMA Program is Californias comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Heath Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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Appendix G -

Regulatory Records

Request # _____

County of San Diego

DEPARTMENT OF ENVIRONMENTAL HEALTH & QUALITY
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
(858) 505-6700
www.sdcdeh.org

PUBLIC RECORDS REQUEST FOR THE SITE ASSESSMENT AND MITIGATION (SAM) PROGRAM AND HAZARDOUS MATERIALS DIVISION (HMD)

Requestor Name: Katherine Thomas **E-Mail:** KThomas@ConverseConsultants.com

Phone: (626) 930-1211 **FAX:** ( )

Company Name: Converse Consultants

Mailing Address: 717 S Mrytle Avenue, Monrovia CA 91016

(You may attach a business card/overprint with business card if preferred)

Additional information may be accessed from the DEHQ website, www.sdcdeh.org. Email your completed form to the Public Records Program at PublicRecords.DEH@sdcounty.ca.gov. The following information is required. Separate forms are needed for each address or parcel number.

5326 Highway 76, Fallbrook CA 92028 **or** _____

Exact Address (Street, City and Zip Code) Assessor Parcel Number

Optional information (establishment permit number, business name, etc.):

Please indicate the purpose of your search by checking all that apply:

- ☑ Contaminated Property Investigation(s) (SAM Cases)
- ☑ Monitoring Well Files (MWP)
- ☑ SAM Closure Letter/Report
- ☑ Hazardous Materials Permit & Underground Storage Tank Files (HMD/UST)
- ☐ Other (be specific): ___

OFFICE USE ONLY BELOW THIS LINE

Files reviewed by: _____ of _____ Date: _____

Files copied for: _____ of _____ Date: _____

Request cancelled by: _____ Date: _____

Photocopies _____ Cost _____ E-mailed / picked up / mailed on _____ By _____

A search for DEHQ records checked above has been conducted and the following apply:

☐ SAM files for the permit number(s) listed below are available.

#_____ #_____ #_____ #_____ #_____

☐ HMD/UST files for the permit number(s) listed below are available.

#_____ #_____ #_____ #_____ #_____

☐ MWP files for the permit number(s) listed below are available.

#_____ #_____ #_____ #_____ #_____

☐ No SAM/HMD/UST/MWP records were found / purged for the address/APN you requested.

_____ _____

Signature - DEHQ Representative Date

DEHQ complies fully with the California Public Records Act and the Federal Freedom of Information Act. Please be advised that photocopy and/or scanned file fees may apply.

Request # _____

County of San Diego

DEPARTMENT OF ENVIRONMENTAL HEALTH & QUALITY
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
(858) 505-6700
www.sdcdeh.org

PUBLIC RECORDS REQUEST FOR THE SITE ASSESSMENT AND MITIGATION (SAM) PROGRAM AND HAZARDOUS MATERIALS DIVISION (HMD)

Requestor Name: Katherine Thomas **E-Mail:** KThomas@ConverseConsultants.com

Phone: (626) 930-1211 **FAX:** ( )

Company Name: Converse Consultants

Mailing Address: 717 S Mrytle Avenue, Monrovia CA 91016

(You may attach a business card/overprint with business card if preferred)

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Exact Address (Street, City and Zip Code) Assessor Parcel Number

Optional information (establishment permit number, business name, etc.):

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- ☑ Monitoring Well Files (MWP)
- ☑ SAM Closure Letter/Report
- ☑ Hazardous Materials Permit & Underground Storage Tank Files (HMD/UST)
- ☐ Other (be specific): ___

OFFICE USE ONLY BELOW THIS LINE

Files reviewed by: _____ of _____ Date: _____

Files copied for: _____ of _____ Date: _____

Request cancelled by: _____ Date: _____

Photocopies _____ Cost _____ E-mailed / picked up / mailed on _____ By _____

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County of San Diego

DEPARTMENT OF ENVIRONMENTAL HEALTH & QUALITY
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
(858) 505-6700
www.sdcdeh.org

PUBLIC RECORDS REQUEST FOR THE SITE ASSESSMENT AND MITIGATION (SAM) PROGRAM AND HAZARDOUS MATERIALS DIVISION (HMD)

Requestor Name: Katherine Thomas **E-Mail:** KThomas@ConverseConsultants.com

Phone: (626) 930-1211 **FAX:** ( )

Company Name: Converse Consultants

Mailing Address: 717 S Mrytle Avenue, Monrovia CA 91016

(You may attach a business card/overprint with business card if preferred)

Additional information may be accessed from the DEHQ website, www.sdcdeh.org. Email your completed form to the Public Records Program at PublicRecords.DEH@sdcounty.ca.gov. The following information is required. Separate forms are needed for each address or parcel number.

5338 Highway 76, Fallbrook CA 92028 **or** _____

Exact Address (Street, City and Zip Code) Assessor Parcel Number

Optional information (establishment permit number, business name, etc.):

Please indicate the purpose of your search by checking all that apply:

- ☑ Contaminated Property Investigation(s) (SAM Cases)
- ☑ Monitoring Well Files (MWP)
- ☑ SAM Closure Letter/Report
- ☑ Hazardous Materials Permit & Underground Storage Tank Files (HMD/UST)
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#_____ #_____ #_____ #_____ #_____

☐ MWP files for the permit number(s) listed below are available.

#_____ #_____ #_____ #_____ #_____

☐ No SAM/HMD/UST/MWP records were found / purged for the address/APN you requested.

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Signature - DEHQ Representative Date

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REQUESTOR INFORMATION

NAME *
Katherine Thomas

DATE
04/19/2022

COMPANY
CONVERSE CONSULTANTS

MAILING ADDRESS
717 SOUTH MYRTLE AVENUE

CITY
MONROVIA

STATE
CA

ZIP CODE
91016

PHONE NUMBER *

FAX NUMBER

16269301211

EMAIL ADDRESS *

kthomas@converseconsultants.com

Requested Records *

☑ Applications (APP) ☑ Air Monitoring Data ☑ Asbestos Notifications/Records(ASB) ☑ Authority to Construct (ATC) ☑ Complaints (CMP) ☑ Emissions Inventory ☑ Notices to Comply (NTC) ☑ Notices of Violation (NOV) ☑ Permits to Operate (PTO) ☑ Site Inspection Reports ☑ Source Test Reports ☑ Title V Permit ☑ Toxic-Health Risk Assessment (HRA) ☐ Other (describe below)

Converse is conducting a Phase I ESA at the following addresses: 5326, 5328, 5338, and 5606 Highway 76, Fallbrook CA 92028.

TIME PERIOD OF DOCUMENTS REQUESTED FROM:

01/01/1900

TIME PERIOD OF DOCUMENTS REQUESTED TO:

04/19/2022

REQUESTED ADDRESS INFORMATION

Equipment Location Address (N/A if unknown) *

Owner Mailing Address

Billing Address

SITE I.D. NO. (if known)

APP and/or Permit NO. (if known)

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10124 Old Grove Road
San Diego, CA 92131

Email Our Departments: airinfo@sdapcd.org

Main Fax: (858) 586-2601
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Hello,

Converse is conducting a Phase I Environmental Site Assessment within your jurisdiction.
Please release all records within your possession for the following addresses:

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Thank you for your assistance,

Katherine Thomas
Staff Environmental Scientist
717 South Myrtle Avenue
Monrovia, California 91016

Office: 626-930-1211

Cell: 626-696-7980
www.ConverseConsultants.com

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PDS Public Records Request Form

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Address or Project Name or Project ID*

5326 Highway 76, Fallbrook, 92028

(Address: Street, City/Zip)

Assessor Parcel Number:

108-121-15-00

enter as XXX-XXX-XX-XX

Please consider this my formal request pursuant to the California Public Records Act, Government Code Section 6250 et seq. for copies of:

Converse is conducting a Phase I ESA for the property located at 5326 Hwy 76. Please release all building permit,

Requestor Name:*

Katherine Thomas

Company Name

CONVERSE CONSULTANTS

if applicable

Mailing Address*

717 SOUTH MYRTLE AVENUE

Number/Street

City, State, Zip*

MONROVIA

E-Mail Address*

kthomas@converseconsultants.co

Phone Number*

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5328 Highway 76, Fallbrook 92028

(Address: Street, City/Zip)

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Building permits, certificates of occupancy, grading permits, etc.

Requestor Name:*

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Company Name

CONVERSE CONSULTANTS

if applicable

Mailing Address*

717 SOUTH MYRTLE AVENUE

Number/Street

City, State, Zip*

MONROVIA

E-Mail Address*

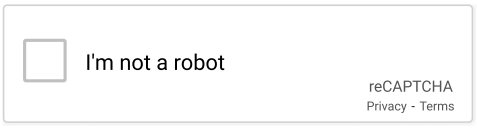
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Building permits, certificates of occupancy, grading permits, etc.

Requestor Name:*

Katherine Thomas

Company Name

CONVERSE CONSULTANTS

if applicable

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717 SOUTH MYRTLE AVENUE

Number/Street

City, State, Zip*

MONROVIA

E-Mail Address*

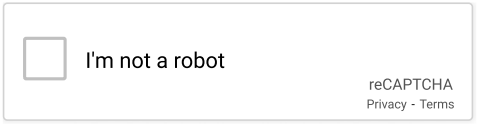
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Planning & Development Services

PDS Public Records Request Form

California Public Records Act Request for address (or) parcel number:

Address or Project Name or Project ID*

5606 Highway 76, Fallbrook 92028

(Address: Street, City/Zip)

Assessor Parcel Number:

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Building permits, certificates of occupancy, grading permits, etc.

Requestor Name:*

Katherine Thomas

Company Name

CONVERSE CONSULTANTS

if applicable

Mailing Address*

717 SOUTH MYRTLE AVENUE

Number/Street

City, State, Zip*

MONROVIA

E-Mail Address*

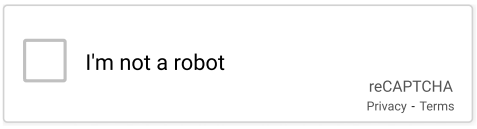
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Converse is conducting a Phase I Environmental Site Assessment within your jurisdiction.
Please release all records within your possession for the following addresses:

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Thank you for your assistance,

Katherine Thomas
Staff Environmental Scientist
717 South Myrtle Avenue
Monrovia, California 91016

Office: 626-930-1211

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Appendix H -

Additional Documentation

Converse Consultants
Geotechnical Engineering, Environmental & Groundwater Science, Inspection & Testing Services

PRELIMINARY ENVIRONMENTAL ASSESSMENT INVESTIGATION REPORT

PROPOSED SCHOOL SITE MEADOWOOD DEVELOPMENT FALLBROOK, CALIFORNIA

Prepared for:

Pardee Homes

DTSC Site Code 404894

CONVERSE CONSULTANTS

Project No. 02-41-220-05

January 25, 2017

717 South Myrtle Avenue, Monrovia, California 91016
Telephone: (626) 930-1200 ♦ Facsimile: (626) 930-1212 ♦ www.converseconsultants.com

Converse Consultants
Geotechnical Engineering, Environmental & Groundwater Science, Inspection & Testing Services

Professional Certification

Property: Proposed School Site
Meadowood Development – Pankey Ranch Property
Fallbrook, California
Converse Project No. 02-41-220-05

This Preliminary Environmental Assessment (PEA) Report has been prepared by the staff of Converse Consultants (Converse) under the supervision of the Professional Geologist (PG) whose seal and signature appears below.

John Ziegler
Senior Professional

Michael Van Fleet, PG
Senior Geologist



Norman S. Eke
Managing Officer

717 South Myrtle Avenue, Monrovia, California 91016
Telephone: (626) 930-1200 ♦ Facsimile: (626) 930-1212 ♦ www.converseconsultants.com

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LIST OF ACRONYMS

AB: Assembly Bill

AOC: Area of Concern

APN : Assessor's Parcel Number

AQMD: South Coast Air Quality Management District

ARARs: Applicable or Relevant and Appropriate Requirements

AST: Aboveground Storage Tank

ASTM: American Society for Testing and Materials

AWP: Annual Workplan

bgs: below ground surface

Cal/EPA: California Environmental Protection Agency

CA FID: California Facility Inventory Database

CDMG: California Department of Mines and Geology

CEC: California Education Code

CERCLIS: Comprehensive Environmental Response, Compensation and Liability Information System

CHMIRS: California Hazardous Material Incident Report System

COC: Chain of Custody

CoFD: Los Angeles County Fire Department

COPCs: Chemicals of Potential Concern

CORRACTS: Corrective Action Report

CSFM: California State Fire Marshall

CSM: Conceptual Site Model

DHS: Los Angeles County, Department of Health Services

DOG: Division of Oil and Gas

DOT: Department of Transportation

DPW: Los Angeles County, Department of Public Works

DQO: Data Quality Objectives

DTSC: Department of Toxic Substances Control

DWP: City of Los Angeles, Department of Water and Power

DWR: Department of Water Resources

EDR: Environmental Data Resources, Inc.

EPA: United States Environmental Protection Agency

EPC: Exposure Point Concentration

ESA: Environmental Site Assessment

FINDS: Facility Index System/Facility Identification Initiative Program Summary Report

FSP: Field Sampling Plan

HASP: Health and Safety Plan

HAZNET: Hazardous Waste Information System

HMS: Los Angeles County, Department of Public Works, Street Number List

IDW: Investigative Derived Wastes

NPL: National Priorities List

LABS: City of Los Angeles, Building and Safety Department

LAFD: City of Los Angeles Fire Department

LAUSD: Los Angeles Unified School District

LARWQCB: Los Angeles Regional Water Quality Control Board

LQG: Large Quantity Generator

LUST: Leaking Underground Storage Tank

MFG: Manufacturing, Manufacturer

µg/dl: micrograms per deciliter

ml: milliliter

ml/min: milliliter per minute

MSDS: Material Safety Data Sheet

msl: mean sea level

NAAQS: National Ambient Air Quality Standard

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NFRAP: No Further Remedial Action Plan (CERCLIS)

NOV: Notice of Violation

NPDES: National Pollutant Discharge Elimination System

OVM: Organic Vapor Monitor

PCBs: Polychlorinated Biphenyls

pCi/L: picocuries per Liter of Air

PEA: Preliminary Endangerment Assessment

PID: Photo-ionization Detector

PPE: Personal Protective Equipment

ppm: parts per million

PPP: Public Participation Plan

PRG: Preliminary Remediation Goals

QA/QC: Quality Assurance and Quality Control

QAPP: Quality Assurance Project Plan

RCRIS: Resource Conservation and Recovery Information System

RME: Reasonable Maximum Exposure

RWQCB: Regional Water Quality Control Board

Sanborn: Sanborn Fire Insurance Company

SCE: Southern California Edison

SLIC: Spill, Leaks, Investigation and Cleanup Cost Recovery Listing

SQG: Small Quantity Generator

SVOCs: Semi-volatile Organic Chemicals

SWAT: Solid Waste Assessment Test

SWIS: Solid Waste Information System

TCE: Trichloroethylene

TI: Tenant Improvement

TICs: Tentatively Identified Compounds

TPH: Total Petroleum Hydrocarbons

TPHg: Total Petroleum Hydrocarbons modified for gasoline

TRPH: Total Recoverable Petroleum Hydrocarbons

TRIS: Toxic Chemical Release Inventory System

TSCA: Toxic Substances Control Act

TSD: Transport, Storage, Disposal facilities

UCL: Upper Confidence Limit

USA: Underground Service Alert

USCS: Unified Soils Classification System
USGS: United States Geologic Survey

UST: Underground Storage Tank **VOCs:** Volatile Organic Chemicals

WIP: Well Investigation Program

WMUDS: Waste Management Unit Database

ZIMAS: Zone Information Map Access System

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EXECUTIVE SUMMARY

This Preliminary Environmental Assessment (PEA) Report presents the findings of the environmental investigations conducted for the proposed elementary school.

This Preliminary Environmental Assessment (PEA) Report presents the findings of the environmental investigations conducted for the proposed elementary school site for the Bonsall Union School District to be located in the Meadowood Development in Fallbrook, California. The proposed school site is bounded by Horse Ranch Creek Road on the west and south, a future park (currently a citrus orchard to the north, currently vacant land (proposed residential development) and Rosemary's Mountain to the east. The Site is located in the Fallbrook Planning area of the County of San Diego, California. The proposed school is a portion of the former Pankey Ranch Property. See **Figures 1 and 2** for Site Vicinity and General Development Plan. In addition to the proposed school site, evaluation of the proposed fill materials to be used during grading operations was also conducted. This PEA Report presents an overview of the findings from the current and prior investigations that were conducted at the Property.

The Site has been identified as a proposed future location for an elementary school of the Bonsall Union School District. Although a construction schedule has yet to be established for the school, it is proposed that the Site be assessed for school site use before areas around the Site are developed, as that development could limit the opportunity to obtain acceptable fill material.

The proposed school site (Site) is comprised of approximately 12.7 acres and is a part of the larger Meadowood Development (Property) in the Fallbrook Planning Area of San Diego County. The majority of the proposed school Site was formerly used for row crops with a portion at the northern end used as an orchard.

In 2002 and 2007 Converse completed Phase I and Limited Phase II ESAs for the Meadowood Development, of which this Site is a portion. During these previous assessments Converse identified four (4) potential areas of concern associated with the proposed School Site and proposed borrow area.

Specific objectives of the PEA include:

- Determining if a release of hazardous wastes/substances/materials has occurred at a site and delineating the general extent of the contamination.
- Estimating the potential threat to public health and/or the environment posed by the site and providing an indicator of the relative risk.

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- Determining if an interim action is required to reduce an existing or potential threat to public health or the environment.
- Completing preliminary project scoping activities to identify data gaps and possible remedial action strategies that would form the basis for development of a site strategy.
- Providing the data and information to DTSC.
- Assessing and providing for the informational needs of the community

The following areas of concern were identified based on the proposed use of the Site and the historical review.

Former Agricultural Use. The use of the property to grow row crops and the presence of an orchard at the northwest corner of the Site resulted in the potential application of pesticides.

Proposed Fill Material – Material from the adjacent site to the north, a proposed park site, and material from the southern end of the proposed school site will be utilized as fill material at the proposed school site. The proposed borrow areas are to be evaluated per the DTSC Information Advisory for Clean Imported Fill Materials (Fill Advisory).

In addition, the potential presence of organic carbon in the fill material could result in the generation of biogenic methane. Pardee has indicated that the top 1-foot of soil will initially be removed from the proposed school site and the proposed park site and disposed of offsite.

Granite Construction Storage Yard – A storage yard used by Granite Construction (Granite Yard) is located at the northern end of the Site. Stained soil was observed within the storage yard. The area also includes vehicle storage and fueling.

Lead-based Paint in Soil and Termiticides. – A single family residence and outbuildings are located near the northwest corner of the Site. Historical records indicate that the structures associated with the residential property on the Site were constructed between the early 1970's and mid-1980s. Therefore, the structures might contain asbestos and lead-based paint (LBP), and the soils surrounding these structures might be impacted with OCPs from termiticides or lead from LBP.

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Assessment Activities

The field sampling investigation for this Site consisted of soil matrix sampling. Groundwater was not identified as a medium of concern based on the lack of a direct exposure pathway. Groundwater was not encountered during this investigation at depths up to 15 feet bgs. Therefore, groundwater was not sampled during this investigation.

Soil vapor was not identified as a current medium of concern. Potential sources of a release of hazardous substances to the atmosphere are limited to fugitive dust from surface soils. Therefore, soil vapor was not sampled during our investigation. However, the potential for proposed fill materials to generate methane gas, which could impact the soil vapor, was evaluated.

Agricultural sampling

A total of 191 soil samples, 180 primary and 11 duplicates, were collected from 30 locations for analysis for agricultural chemicals. The 34 samples (30 primary and 4 duplicates) collected from the 1.5-foot depth were composited by the laboratory into nine (9) composite samples, eight (8) primary and one (1) duplicate, for analysis.

The nine (9) composite samples were analyzed for OCPs in accordance with EPA method 8081, TPHcc in accordance with EPA method 8015, and total organic carbon in accordance with EPA method 9060. Nine (9) discrete samples, one (1) from each composite group, were analyzed for arsenic in accordance with EPA method 6010. Four (4) composite samples from the proposed cut area of the Site were analyzed for PAHs in accordance with EPA method 8310. In addition, one discrete sample from the proposed borrow area (A23 at 1.5 feet bgs) was analyzed for PCBs in accordance with EPA method 8082.

One (1) OCP was reported in the two (2) composite samples analyzed, AC-4 and AC-6. DDE was reported at concentrations of 1.38 and 13 micrograms per kilogram (µg/kg). This is less than the screening level for residential soil of 2 mg/kg (2,000 µg/kg).

Arsenic was reported in one (1) of the samples analyzed (A17 at 1.5 feet bgs) at a concentration of 2.71 mg/kg. This is less than the screening level of 12 mg/kg.

TPH, PAHs, and PCBs were non-detect in each of the samples analyzed.

Import Fill Material

Twenty-seven (27) samples, 24 primary and 3 duplicates, collected from the 4-foot, 8-foot and 12-foot depths were analyzed for total organic carbon. Eighteen (18)

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samples,16 primary and 2 duplicates, collected from the 4-foot and 8-foot depths were analyzed for Title 22 metals.

A total of 36 soil samples were analyzed for TOC. Nine (9) composite samples from the agricultural sampling and 27 discrete samples from the fill samples.

Total organic carbon was reported in one (1) of the discrete samples (F7 at 12-feet) at a concentration of 710 mg/kg (0.071%), and in four (4) of the composite samples from 1.5 feet bgs at a maximum concentration of 2,700 mg/kg (0.27%). Reported concentrations ranged from 540 mg/kg to 2,700 mg/kg (0.054% to 0.27%). All reported TOC concentrations are less than the screening level of 0.5%.

Eight (8) metals (arsenic, barium, chromium, cobalt, copper, nickel, vanadium and zinc) were reported in the samples analyzed. Concentrations of metals reported were significantly less than their respective residential screening levels.

Granite Construction Storage Yard

Fourteen soil matrix samples (12 primary and 2 duplicates) collected from the 2 and 4-foot depths were analyzed for TPHcc, VOCs and metals.

Screening levels based on the Tier 1 ESLs published by the San Francisco Bay Regional Water Quality Control Board were used to evaluate TPH. The Tier 1 screening level of 100 mg/kg was used to evaluate TPH in the gasoline (C4-C12) and oil (C23 to C40) ranges, and 240 mg/kg for TPH in the diesel (C13-C22) range.

TPH in the gasoline and diesel ranges was reported as non-detect in the 14 samples analyzed. TPH in the oil range was reported in one (1) sample, S5 at 2-feet, at a concentration of 52.2 mg/kg. This is less than the screening level of 100 mg/kg.

VOCs were reported as non-detect in all the samples analyzed.

Eight (8) metals (arsenic, barium, chromium, cobalt, copper, nickel, vanadium and zinc) were reported in the samples analyzed in the Granite Yard area. Concentrations of metals reported were significantly less than their respective residential screening levels.

Lead-based Paint and Termiticides

A total of 64 soil samples, 60 primary and four (4) duplicates, were collected from 10 locations (L1 through L10) around the residential structure and outbuildings located at the northwest corner of the proposed school site. Samples were collected from depths of 1.5, 2, 2.5, 3, 3.5 and 4-feet bgs.

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Fourteen (14) samples, 10 primary and four (4) duplicates from the 1.5-foot depth were analyzed for lead in accordance with EPA method 6010.

Lead was evaluated relative to the DTSC HHRA Note 3 residential screening level of 80 mg/kg. Lead was reported as non-detect in all samples analyzed.

The samples from the 1.5-foot depth were composited by the laboratory into four (4) composite samples, three (3) primary and one (1) duplicate. Samples were analyzed for OCPs in accordance with EPA method 8081. OCPs were evaluated using residential screening levels presented in Table 1 of the DTSC HHRA Note 3 and the EPA RSLs.

One (1) OCP, Chlordane, was reported in two (2) samples (LC-1 and the duplicate DLC-1) at concentrations of 1.32 and 2.59 µg/kg. These are less than the residential screening level of 440 µg/kg.

Findings, Conclusions and Recommendations

Based on the findings of this PEA investigation, the objectives have been met.

The following is a summary of the findings for the soil matrix samples collected as part of this investigation.

- No VOCs, PCBs, PAHs, or TPH in the gasoline and diesel ranges were reported in the soil samples analyzed during this investigation.
- Total Petroleum Hydrocarbons in the oil range (C23-C40) was reported in one soil sample at a concentration of 52.2 mg/kg, which is less than the screening level of 100 mg/kg.
- Arsenic was reported in 15 of 41 soil samples analyzed during this investigation at a maximum concentration of 3.82 mg/kg, which is less than the screening level of 12 mg/kg.
- Lead was reported as non-detect in all 43 soil samples analyzed.
- Eight metals, arsenic, barium, chromium, cobalt, copper, nickel, vanadium and zinc, were reported at concentrations well below their residential screening levels.
- Two OCPs, DDE and chlordane, were reported in 4 of the 13 composite soil samples analyzed at maximum concentrations of 13 and 2.59 µg/kg respectively. These concentrations are less than their respective screening levels of 2,000 and 440 µg/kg.

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- Total organic carbon was reported in 5 of the 36 soil samples analyzed at a maximum concentration of 2,700 mg/kg (0.27%), which is less than the DTSC recommended threshold of 0.5% in potential fill soils.

The results of the human health screening evaluation conducted utilizing a conservative, hypothetical residential use scenario indicated that chemicals detected at the Site will not pose a health risk to future school occupants:

- The total estimated cancer risk for the Site based on the maximum concentrations is 3.6×10^{-8}. This is less than the target goal of 1.0×10^{-6}.
- The Hazard index for the Site is 0.696. This is less than the target of 1.

Recommendations

The upper 1-foot of soil at the proposed school site should be removed and disposed of offsite prior to fill activities.

Evaluation of the soil in the proposed borrow areas indicate that the soils tested are acceptable for use as fill material at the proposed school site, provided the upper 1-foot of soil is first removed and disposed of offsite.

Based upon the results of this and previous investigations and the planned removal of the upper 1-foot of soil, no further action is recommended. No further testing should be required following the conclusion of grading activities.

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1.0 INTRODUCTION

This Preliminary Environmental Assessment (PEA) Report presents the findings of the environmental investigations conducted for the proposed elementary school site for the Bonsall Union School District to be located in the Meadowood Development in Fallbrook, California. The proposed school site is bounded by Horse Ranch Creek Road on the west and south, a future park (currently a citrus orchard to the north, currently vacant land (proposed residential development) and Rosemary's Mountain to the east. The Site is located in the Fallbrook Planning area of the County of San Diego, California. The proposed school is a portion of the former Pankey Ranch Property. See **Figures 1 and 2** for Site Vicinity and General Development Plan. In addition to the proposed school site, evaluation of the proposed fill materials to be used during grading operations was also conducted. This PEA Report presents an overview of the findings from the current and prior investigations that were conducted at the Property.

This PEA Report is being submitted by Converse Consultants (Converse) on behalf of Pardee Homes, the developer of the Property.

According to Section 17213 of the California Education Code, a determination of "no further action" must be obtained from the Department of Toxic Substances Control (DTSC) pertaining to environmental investigation and clearance before a new school site is approved for acquisition and/or construction. Under Assembly Bill (AB 387) and Senate Bill 162 (SB 162), which was signed into law and became effective January 1, 2000, the DTSC is the state agency responsible for providing reviews of proposed new school sites. The DTSC review process requires completion of a Phase I Environmental Site Assessment (ESA) and/or Preliminary Environmental Assessment (PEA) Report for each proposed site.

The proposed school site (Site) is comprised of approximately 12.7 acres and is a part of the larger Meadowood Development (Property) in the Fallbrook Planning Area of San Diego County. The majority of the proposed school Site was formerly used for row crops with a portion at the northern end of used as an orchard.

In 2002 and 2007 Converse completed Phase I and Limited Phase II ESAs for the Meadowood Development, of which this Site is a portion. During these previous assessments Converse identified four (4) potential areas of concern associated with the proposed School Site and proposed borrow area.

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1.1 PEA Objectives

Specific objectives of the PEA include:

- Determining if a release of hazardous wastes/substances/materials has occurred at a site and delineating the general extent of the contamination.
- Estimating the potential threat to public health and/or the environment posed by the site and providing an indicator of the relative risk.
- Determining if an interim action is required to reduce an existing or potential threat to public health or the environment.
- Completing preliminary project scoping activities to identify data gaps and possible remedial action strategies that would form the basis for development of a site strategy.
- Providing the data and information to DTSC.
- Assessing and providing for the informational needs of the community.

1.2 Scope of Work

The scope of work for the PEA included the following:

- Evaluation of historical information for indications of the past use, storage, disposal, or release of hazardous wastes/substances at the Site and at offsite facilities by evaluating existing data and gathering of additional data.
- Preparation of a field sampling and analysis program, in consultation with the DTSC, utilizing the data obtained during the background review to assess identified Areas of Concern (AOCs).
- Assessment of the nature of hazardous wastes/substances that may be present in soil at the Site, their concentration and general extent.
- Evaluation of the potential threat to public health and/or the environment posed by hazardous constituents detected at the Site using a residential land use scenario consistent with the PEA guidance Manual.
- Preparation of the PEA Report.

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1.3 Organization of Report

This PEA Report is organized as follows:

Section 1.0 Presents an introduction and summary of the Site history, the rationale for performing the PEA, the general scope of work, and the guidance documents used during the PEA process.

Section 2.0 Provides specific details about the Site and surrounding areas as well as hazardous substances/waste management information;

Section 3.0 Presents the apparent problem;

Section 4.0 Discusses the environmental setting;

Section 5.0 Describes the sampling activities and results;

Section 6.0 Presents the human health screening evaluation;

Section 7.0 Presents the ecological screening evaluation;

Section 8.0 Presents the conclusions and recommendations;

Section 9.0 Discusses the limitations of this PEA Report.

Section 10.0 Presents the References.

1.4 Public Participation

Prior to the commencement of the PEA field investigation the public that is within the line of sight was notified of the planned investigation activities in accordance with Assembly Bill (AB) 972.

The Draft PEA will only be made available for public review and comment if it is determined that the Bonsall Union School District will be developing the Site into a school. A notice of public availability will be published in a local newspaper indicating that the Draft PEA is available for review and comment, as well as the date of the public hearing where comments will be also be received.

It is noted that documents related to the California Environmental Quality Act (CEQA) were prepared for the Meadowood Development (Project) in 2011. Any additional CEQA activities or updates to the existing CEQA documents, are planned to be conducted at a yet to be determined time, but prior to beginning school construction activities. Therefore, under Option A of AB 972, the public hearing for the PEA will be independent of any potential CEQA public participation activities.

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2.0 SITE DESCRIPTION

The proposed school site (Site) is a 12.7 acre, generally undeveloped lot in the Meadowood Development (Project) in the Fallbrook Planning Area in the County of San Diego, located north of Highway 76 (Pala Road) and east of Interstate 15. The Site is immediately bounded by a citrus orchard (proposed to be a park) to the north, by Horse Ranch Creek Road to the south and west, currently vacant land (proposed residential development) and Rosemary's Mountain to the east. See **Figures 1 and 2** for Site vicinity, and the location of the Site within the development.

The Site has been identified as a proposed future location for an elementary school of the Bonsall Union School District. Although a construction schedule has yet to be established for the school, it is proposed that the Site be assessed for school site use before areas around the Site are developed, as that development could limit the opportunity to obtain acceptable fill material.

2.1 Site Identification

The following sections describe the details of the Site, the nearby surrounding area, the location, and information about the proposed Site and the property owners.

2.1.1 Site Name

The Site is a portion of the Meadowood Development (Project), which is a part of the former Pankey Ranch property. The location of the Site is shown on **Figure 1**.

2.1.2 Site Addresses

The current configuration of the Site is depicted on **Figure 2** and is described below. The Site is partially vacant land with a residence and orchard at the northwest corner and a storage area at the north central and north eastern portion of the Site.

The Site is currently addressed as 5326, 5328, 5338 and 5606 Pala Road/ Highway 76.

2.1.3 Designated Contact Person and Contact Information

Mr. Allen Kashani, Director of Project Management, is the designated contact person for Pardee Homes. Mr. Kashani's contact information is listed below.

Mr. Allen Kashani, Director of Project Management
Pardee Homes
13400 Sabre Springs Parkway, Suite 200
San Diego, California 92128

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Telephone Number: (858) 794-2571

2.1.4 Other Site Names

The Site was previously identified as Pankey Ranch.

2.1.5 U.S. Environmental Protection Agency Identification Number

Review of selected regulatory agency databases found no former Site occupants were assigned a United States Environmental Protection Agency (EPA) Identification Number.

2.1.6 CalSites Database Number

Review of selected regulatory agency databases, discussed further below, did not reveal records of any CalSites database numbers assigned to the current or former occupants of any of the existing Site addresses.

2.1.7 Assessor's Parcel Number(s) and Maps

According to the San Diego Area Association of Governments (SANDAG) interactive GIS website, the Assessor's Parcel Numbers (APNs) for the Site included a portion of 1081211500 and 1250610700.

2.1.8 Township, Range, Section and Meridian

Based on a review of the United States Geological Survey (USGS) 7½-minute Topographic Series, Pala, California Quadrangle Map, the Site is located in Section 1, Township 10 South, Range 3 West, and Section 36, Township 9 South and Range 3 West.

2.1.9 Site Zoning

According to the San Diego County Zoning and Land Use maps, the Site is zoned RV-10, residential variable.

2.1.10 Site Maps and Photographs

Figures 1 and 2 provide vicinity maps of the Site and surrounding areas. Site photographs compiled by Converse are provided in **Appendix A** of this report.

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2.2 Site History

The historical use of the Project area has been agricultural land, with associated ranch operations and residential development since at least 1928. The Project area is primarily agricultural land composed of citrus and avocado orchards and row crops in the southern portion. According to San Diego County, Agriculture, Weights, and Measurement (SDCAWM) records reviewed, the Project area appears to utilize herbicides, miticides, and insecticides permitted by the SDCAWM.

The Project area, which consists of approximately 388.5-acres in area and is being developed as Meadowood, is currently a portion of the larger Pankey Ranch property. The majority of the proposed school site (Site) has historically been used for row crops, although the northwest corner is currently used as part of a citrus orchard. Currently the Site is mostly undeveloped. A single-family residence occupies a portion of the northwest corner of the Site, and a storage yard for Granite Construction is located along the remainder of the northern portion of the Site.

2.2.1 Business Type

Agricultural businesses occupied the Site as early as the 1928. Currently there are no commercial, or industrial activities occurring at the Site.

2.2.2 Current and Historical Land Uses

The historical use of the Project area has been agricultural land, with associated ranch operations and residential development since at least 1928. The northern portion of the Site recently appears to have been used as a staging area for the construction of the adjacent Horse Ranch Creek Road.

2.2.3 Aerial Photograph Review

Aerial photographs indicate that the Project area has been used for agricultural purposes since 1928. The Site appears as tilled land as early as 1960 with the residential structure appearing as early as 1970 (Converse 2007).

2.2.4 Sanborn Map Review

There is no Sanborn Map coverage of the Project area.

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2.2.5 Building Permit Review

Between 1974 and 1987 various building permits were issued for the Property (Converse 2007). None of the permits appear to be associated with the proposed school site.

2.2.6 City Directory Review

A city directory search was completed on the Property by FirstSearch.

The Property was not listed in city directories researched between 1971 and 2000. In 2005, the Property addresses of 5326, 5328, 5338 and 5606 Pala Road/Highway 76 were listed under the residential names of Pankey, Pagett, and Galan.

Adjacent properties were not listed in the city directory search. Other properties within the greater surrounding area appeared to be a fuel service station, residential listings, a water district, and "service center". (Converse 2007)

2.2.7 Oil and Gas Map Review

No oil wells are present on the Property or within 1 mile of the Property.

2.2.8 Business/Manufacturing Activities

Agricultural and residential properties predominate along the main thoroughfares (Interstate 15 and State Route 76) in the Site vicinity.

2.2.9 Surrounding Property Land Uses

Converse conducted visual reconnaissance of the Site and adjacent properties on December 19, 2016. The surrounding land use was identified as the following:

North: Citrus Orchard. Proposed park site and fill source.

East: Pankey Ranch property and Rosemary's Mountain.

South: Horse Ranch Creek Road followed by vacant land, proposed residential properties.

West: Horse Ranch Creek Road followed by vacant land, proposed residential properties.

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2.3 Hazardous Substances/Waste Management Information

2.3.1 Business/Manufacturing Activities

No manufacturing activities have occurred at the Site. The Site has historically been utilized for agricultural purposes.

2.3.2 On-Site Storage, Treatment and Disposal

No treatment or disposal of hazardous materials was observed and is not expected to occur at the Site.

2.3.3 Regulatory Status

The regulatory database review was completed by Converse during the Phase I and Phase II ESA dated October 2007 conducted for the Meadowood Project, of which this Site was a portion. Review of selected regulatory agency databases for documented environmental concerns on the Site, or in proximity to the Site, was conducted by FirstSearch.

The Property was identified in the orphan sites summary (i.e., unmappable sites) on the PERMITS (San Diego County Permits) database as Pankey Ranch, at the Property address of 5328 Highway 76.

The adjoining properties were not identified on the databases in the FirstSearch report.

2.3.4 Site Inspection Results

Converse conducted an initial Site reconnaissance on September 20, 2007.

Summarized below are observations relative to specific physical features identified in the PEA Guidance Manual. Observations made during the PEA investigations conducted on December 19 and 20, 2016 are:

Physical Feature	Observations
Site boundaries	The Site is currently bounded by agricultural properties. Future development indicates that the Site will be bounded by a park and residential properties
Locations and boundaries of all on-site operations (present and past)	Site boundaries are evident from existing roads.
Foundations of former structures	No foundations were noted during the Site reconnaissance.

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Physical Feature	Observations
Storage tanks and storage areas	No storage tanks were observed. An equipment storage area was observed at the northern portion of the Site
Odors	None noted during the Site reconnaissance.
Pools of liquid	None observed during the Site reconnaissance.
Electrical or hydraulic equipment known or likely to contain PCBs	An electrical transformer is located in the proposed borrow area.
Unidentified substance containers (including empty drum storage)	None observed during the Site reconnaissance.
Stained soil and pavement, corrosion, and degradation of floors and walls	Some stained soil observed in the equipment storage yard in the proposed borrow area.
Drains and sumps	None observed during the Site reconnaissance.
Pits, ponds, and lagoons	None observed during the Site reconnaissance
Surface drainage pathways	Site drains from the northeast to the southwest to Horse Ranch Creek.
Stressed vegetation (from other than insufficient water)	None observed during the Site reconnaissance.
Solid waste and waste water	None observed during the Site reconnaissance.
Wells (including dry wells, irrigation well, injection wells)	None observed during the Site reconnaissance.
Septic systems	None observed during the Site reconnaissance, however a septic system reportedly serves the residence at the northeast corner of the Site.

2.3.5 Prior Assessments/Investigations

Previous investigations at the Site include the following:

Converse conducted a Phase I and Phase II ESA for the Property dated July 2002 and October 2, 2007. The Phase II identified four (4) areas of concern (AOCs; 3, 4, 5, and 6) associated with the proposed school site and proposed borrow area. See **Figure 3** for the location of the AOCs and associated borings from the prior Phase II ESA.

- **AOC 3 -** The area containing the agricultural equipment debris pile; fourteen (14) 25-gallon drums; tractor transmission parts pile and four (4) plastic 25-gallon drums located near the southeast portion of the Property.

- **AOC 4 -** The area of the metal shed/hanger, 5-gallon drums and agricultural machinery located west of the three ASTs in AOC 2 (offsite).

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- **AOC 5 -** The area of the metal enclosure containing 5-gallon waste oil drums and containers located south of the hanger in AOC 4. Minor staining was observed in the vicinity of the enclosure.

- **AOC 6 -** Historical records indicate that the structures associated with the residential property on the Site were constructed between the early 1970's and mid-1980s. Therefore, the structures might contain asbestos and lead-based paint (LBP), and the soils surrounding these structures might be impacted with organochlorine pesticides (OCPs) from termiticides or lead from LBP.

The sampling program in each of these areas consisted of the following:

- **AOC 3 -** Two (2) Geoprobe borings (GP-5 and GP-6) were advanced to a maximum depth of 10 feet below ground surface (bgs) in the vicinity of the debris pile. Samples were collected at 0.5-feet, 5-feet and 10-feet bgs. The 0.5-foot samples from each boring were analyzed for organochlorine pesticides (OCPs), organophosphorus pesticides (OPPs), chlorinated acid herbicides, metals, total petroleum hydrocarbons (TPH), and total lead. The 5-foot samples from each boring were analyzed for volatile organic compounds (VOCs), OCPS, OPPs, chlorinated acid herbicides, metals, and TPH. The 10-foot samples from each boring were analyzed for VOCs and TPH.

  The analytical results indicated no detectable concentrations above the method detection limits of OCPs, OPPs, chlorinated acid herbicides, VOCs, or TPH in soil samples collected from borings GP-5 and GP-6.

  With the exception of arsenic, all of the detected concentrations of metals in samples collected from borings GP-5 and GP-6 were below their respective preliminary remediation goals for residential land use (PRGs-r) and the California Human Health Screening Levels for residential property (CHHSLs-r). Arsenic concentrations in borings GP-5 and GP-6 ranged from 2.0 to 2.8 milligrams per kilogram (mg/kg).

- **AOC 4 -** One (1) Geoprobe boring (GP-8) was advanced to a maximum depth of 10 feet bgs south of the metal shed/hanger. Samples were collected at depths of 0.5, 5, and 10 feet bgs. The 0.5-foot sample was analyzed for metals and TPH. The 5-foot sample was analyzed for VOCs, metals, and TPH. The 10-foot sample was analyzed for VOCs and TPH.

  The analytical results indicated no detectable concentrations of VOCs above the method detection limits. Concentrations of TPH in boring GP-8 at a depth of 5-feet ranged from 1.7 mg/kg in the C8-C12 range to 11.9 mg/kg in C23-36 range.

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No detectable concentrations above the method detection limits of TPH were detected in the 10-foot sample.

With the exception of arsenic, all of the detected concentrations of metals in samples from GP-8 were below their respective PRGs-r and the CHHSLs-r. Arsenic concentrations of 2.7 and 3.0 mg/kg were identified in boring GP-8 at depths of 0.5 and 5 feet bgs, respectively.

- **AOC 5 -** One (1) Geoprobe boring (GP-7) was advanced to a maximum depth of 10 feet bgs approximately 2-feet south of the metal enclosure. Samples were collected from this boring at depths of 0.5, 5, and 10 feet bgs. The 0.5-foot sample was analyzed for COPs, OPPs, chlorinated acid herbicides, metals, and TPH. The 5-foot sample was analyzed for OCPs, OPPs, chlorinated acid herbicides, VOCs, metals and TPH. The 10-foot sample was analyzed for VOCs and TPH.

  The analytical results indicated no detectable concentrations above the method detection limits of VOCs, OCPs, OPPs, chlorinated acid herbicides, or TPH.

  With the exception of arsenic, all of the detected concentrations of metals in samples from GP-7 were below their respective PRGs-r and the CHHSLs-r. Arsenic concentrations of 1.0 and 2.0 mg/kg were identified in boring GP-7 at depths of 0.5 and 5 feet bgs, respectively.

- **AOC 6 -** No sampling was conducted during the Phase II around the perimeter of the onsite structure to evaluate for potential impacts from LBP or termiticides. Assessment around the structures for the presence of asbestos and LBP is being completed as part of this PEA.

- **Agricultural Samples -** Analytical results indicated no detectable concentrations above the method detection limits of OCPs, OPPs, and chlorinated herbicides.

A summary of the results from the Phase II for these AOCs is presented in **Tables A, B and C** in **Appendix B**. It is noted that the drums and containers previously identified in AOCs 3, 4, and 5 are no longer present at the Site. It is also noted that in addition to the risk-based screening levels (PRGs and CHHSLs), regulatory levels for waste characterization and landfill decisions (Total Threshold Limit Concentrations [TTLCs], Soluble Threshold Limit Concentrations [STLCs], Toxicity Characteristic Leaching Procedures levels [TCLPs]) are also presented on **Tables A, B, and C**.

On February 12, 2014 Pardee entered into a Voluntary Cleanup Agreement with DTSC.

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Converse conducted a Site visit with DTSC representatives on May 1, 2014 to evaluate current conditions and identify potential additional concerns. The following items were noted during the Site reconnaissance:

- Equipment storage area on the northeast portion of the Site – The northeast portion of the Site is currently used as a storage yard by Granite Construction. Equipment currently stored there includes vehicles, tires, containers, signs, cones, and an AST for diesel fuel. No signs of contamination were observed at the time of the Site reconnaissance, but it was agreed that the area should be reevaluated once the equipment is removed from the Site, and areas exhibiting signs of potential contamination (stained soil) should be evaluated.

- Chemical storage areas east of the Site – Adjacent to the eastern boundary of the Site were two (2) areas where chemicals were being stored. Liquid chemicals, which mainly consisted of plant nutrients, pesticides, and spray oil (mineral oil), were generally stored in 1, 2.5, 55, or 200-gallon poly containers/drums/tanks. Dry chemicals, primarily potassium nitrate, were generally stored in 50-pound bags. Minor staining of the soil was observed in these areas.

- Pole-mounted transformers in the potential borrow area – At least one transformer was observed mounted on an electrical pole in the proposed borrow area.

Converse prepared a Technical Memorandum - Preliminary Environmental Assessment Workplan (PEA Workplan) dated June 27, 2014. On July 9, 2014, the project was placed on hold. On October 25, 2016, Pardee requested that the VCA be reopened. Converse conducted a site visit on November 7, 2016 and concluded that Site conditions had not changed materially since the preparation of the PEA Workplan. On November 21, 2016, the PEA Workplan was approved by the DTSC.

Section 17213 of the California Educational Code and Section 21151.8 of the California Public Resources Code prohibit construction of a school upon a current or former hazardous waste disposal site or solid waste disposal site. Based on Site inspections and information reviewed during the preparation of the PEA Workplan, the Site is not situated upon a current or former disposal site.

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3.0 APPARENT PROBLEM

This section summarizes the known or potential Areas of Concerns (AOCs) that were identified as a result of the background information reviewed and the Site inspections and as applicable to the reconfigured Site. Based on the current configuration of the Site, the following are AOCs that have been identified and are addressed in this investigation:

Areas of Concern:

The following areas of concern were identified based on the proposed use of the Site and the historical review.

Former Agricultural Use. The use of the property to grow row crops and the presence of an orchard at the northwest corner of the Site resulted in the potential application of pesticides.

Proposed Fill Material – Material from the adjacent site to the north, a proposed park site, and material from the southern end of the proposed school site will be utilized as fill material at the proposed school site. The proposed borrow areas are to be evaluated per the DTSC Information Advisory for Clean Imported Fill Materials (Fill Advisory).

In addition, the potential presence of organic carbon in the fill material could result in the generation of biogenic methane. An approximate Cut/Fill Map is provided on **Figure 4**. Pardee has indicated that the top 1-foot of soil will initially be removed from the proposed school site and the proposed park site and disposed of offsite.

Granite Construction Storage Yard – A storage yard used by Granite Construction (Granite Yard) is located at the northern end of the Site. Stained soil was observed within the storage yard. The area also includes vehicle storage and fueling.

Lead-based Paint in Soil and Termiticides. – A single family residence and outbuildings are located near the northwest corner of the Site. Historical records indicate that the structures associated with the residential property on the Site were constructed between the early 1970's and mid-1980s. Therefore, the structures might contain asbestos and lead-based paint (LBP), and the soils surrounding these structures might be impacted with OCPs from termiticides or lead from LBP.

A conceptual site model identifying each of these areas is presented as **Figure 5.**

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4.0 ENVIRONMENTAL SETTING

The following sections provide information regarding the potential exposure pathways. A detailed conceptual site model is discussed further in Section 6.0 of this report.

4.1 Factors Related to Soil Pathways

The following sections relate to factors associated with soil pathways.

4.1.1 Topography

The proposed Project area is within the unincorporated area of northern San Diego County, within the Fallbrook Community Plan area. The topography is characterized by the east-west San Luis Rey River Valley along the SR-76 corridor and the north-south I-15 corridor. Both the San Luis Rey River floodplain and the I-15 corridor are flanked by rolling hills which have historically been used for citrus and avocado groves, estate residences, and open space, with cattle grazing also occurring in the more rugged terrain. Row-crop agriculture is practiced within the flatter portions of the Site and to the east of the Monserate Mountain ridgeline, within Rice Canyon. A rocky outcrop, known as Rosemary's Mountain, comprises the southernmost toe of the Monserate Mountain ridge and abuts the eastern side of the Site.

Site elevation ranges from 280 feet above mean sea level (amsl) in the southern portion of the Site to 320 feet amsl at the northern portion of the Site. With exception of the northern portion of the Site, the Site is generally flat and slopes to the south.

4.1.2 Evidence of Environmental Impact from Release at Site

With the exception of stained soil observed at the Granite construction storage yard at the north end of the Site, no evidence of environmental impacts from releases were observed at the Site.

4.1.3 Predominant Soil Groups

Three surficial soil types and three geologic formations were encountered during the field investigation. Surficial soil deposits include undocumented fill, topsoil, and alluvium. Formational units include Quaternary-aged Terrace Deposits, Cretaceous-aged Bonsall Tonalite, and San Marcos Gabbro (Larsen 1948). The on-site soils consist predominantly of fine- to coarse-grained, silty sands, clayey sands, and sandy silts. (Geocon 2006)

Soil encountered during our investigations generally consisted of silts and sandy silts. Boring logs are presented in **Appendix D**.

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4.1.4 Measures Taken to Prevent Direct Contact with Hazardous Substances in or on the Soil at the Site

Field activities were conducted in accordance with the guidelines outlined in the Health and Safety Plan (HASP), dated December 8, 2016.

4.2 Factors Related to Water Pathways

The following sections describe the factors related to water pathways.

4.2.1 Hydrogeology

According to the prior ESA (CEC, 2000), conducted for a larger parcel of land, which included the Property, the depth to the uppermost groundwater aquifer was reported to be approximately 50- feet below ground surface (bgs). The direction of groundwater flow was reported to be towards the south.

No groundwater was encountered during the Limited Phase II ESA conducted by Converse in 2002. However, based on the topography and the location of an intermittent stream immediately west of the Property, shallow groundwater conditions are expected to occur along the western property line of the Property. The direction of groundwater flow is expected to follow surface topography towards the south.

The update geotechnical report prepared by Geocon in 2006 stated that groundwater was encountered in alluvium along the north branch of the San Luis Rey Valley (Borings SB-6 through SB-10) at depths ranging between 12 and 34.5 feet. Borings SB-8 and SB-9 are located at the proposed school site. Groundwater was not encountered during our investigation at depths up to 12-feet bgs. Groundwater was not encountered during previous investigations conducted by Converse at depths up to 15-feet bgs

4.2.3 Surface Water Pathway

Currently, runoff from the Site drains westerly into Horse Ranch Creek. Horse Ranch Creek confluences with the San Luis Rey River which ultimately outfalls into the Pacific Ocean.

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4.3 Factors Related to Air Pathways

There is no documentation of a release of hazardous substances to the atmosphere at the Site. Potential sources of a release of hazardous substances to the atmosphere are limited to fugitive dust from surface soils.

The Project area, like the rest of San Diego County's inland valley areas, has a Mediterranean climate characterized by warm, dry summers and mild, wet winters. The mean annual temperature for the Project area is 74 degrees Fahrenheit (º F). The average annual precipitation is 13 inches, falling primarily from November to April. Winter low temperatures in the Project area average about 44º F, and summer high temperatures average about 81º F (U.S. Department of Commerce 2006).

The prevailing westerly wind pattern is sometimes interrupted by regional "Santa Ana" conditions. A Santa Ana occurs when a strong high pressure develops over the Nevada-Utah area and overcomes the prevailing westerly coastal winds, sending strong, steady, hot, dry northeasterly winds over the mountains and out to sea.

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5.0 SAMPLING ACTIVITIES AND RESULTS

The following sections describe the field activities conducted pursuant to the Technical Memorandum (Tech Memo) – Preliminary Environmental Assessment Workplan, Proposed Meadowood Elementary School Site, Fallbrook California (PEA Workplan) and in consultation with the DTSC. Field activities were completed on December 19 and 20, 2016.

5.1 Summary of Activities

The field sampling investigation for this Site consisted of soil matrix sampling. Groundwater was not identified as a medium of concern based on the lack of a direct exposure pathway. Groundwater was not encountered during this investigation at depths up to 15 feet bgs. Therefore, groundwater was not sampled during this investigation.

Soil vapor was not identified as a current medium of concern. Potential sources of a release of hazardous substances to the atmosphere are limited to fugitive dust from surface soils. Therefore, soil vapor was not sampled during our investigation. However, the potential for proposed fill materials to generate methane gas, which could impact the soil vapor, was evaluated.

5.1.1 Utility Clearance and DTSC Notification

Prior to commencement of field activities, Underground Service Alert (USA) was notified of our investigation on the Site. Proposed locations of subsurface tasks were marked with paint for clearance by USA.

The DTSC was notified in advance of fieldwork on December 9, 2016.

5.1.2 Soil Matrix Samples

Agricultural Sampling

A total of 191 soil matrix samples (180 primary and 11 duplicate samples) were collected from thirty boring locations. Borings were advanced to a depth of 4-feet bgs. Soil samples were collected from depths of 1.5, 2.0, 2.5, 3.0, 3.5 and 4.0- feet bgs. Forty-one soil samples collected from the 1.5-foot depth (30 primary and 11 duplicates) were composited by the laboratory into nine (9) composite samples (8 primary plus 1 duplicate) for analysis for OCPs, TPH and TOC. Nine (9) discrete samples, one from each composite group, were analyzed for arsenic. All remaining samples were archived by the laboratory pending receipt of the analytical results.

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Proposed Import Fill Material

A total of 35 soil matrix samples (32 primary and 3 duplicates) were collected from eight (8) locations in the source areas of the proposed fill material. Soil samples were collected from depths of 2, 4, 8 and 12 feet bgs. Eighteen samples (16 primary and 2 duplicates) from the 2-foot and 8-foot depths were analyzed for metals. Twenty-seven samples (24 primary and 3 duplicates) from the 4, 8 and 12-foot depths were analyzed for Total Organic Carbon (TOC).

Granite Construction Storage Yard

A total of 26 soil matrix samples (24 primary and 2 duplicates) were collected from the six (6) locations at the Granite Construction Storage Yard located at the northern end of the Site. Samples were collected from areas of stained soil. Soil samples were collected from depths of 2, 4, 6, and 8 feet bgs. Samples from the 2 and 4-foot depths were analyzed for TPH, Metals and VOCs. Remaining samples were archived by the laboratory pending receipt of the analytical results.

Lead based Paint in Soil and Termiticides

A total of 64 soil matrix samples (60 primary and 4 duplicate samples) were collected from ten boring locations located around the existing single family residence and outbuildings. Borings were advanced to a depth of 4-feet bgs. Soil samples were collected from depths of 1.5, 2.0, 2.5, 3.0, 3.5 and 4.0-feet bgs. Samples from the 1.5-foot depth were analyzed for lead. Fourteen soil samples (10 primary and one duplicate) collected from the 1.5-foot depth were composited by the laboratory into four (4) composite samples (3 primary plus 1 duplicate) for analysis for OCPs.

Boring locations are presented on **Figures 6, 7, and 8**.

Tables 1 through 6 present a summary of boring locations, soil sample depths and analyses performed during this investigation.

All borings were advanced using a direct-push (Geoprobe) drill rig operated by Interphase Environmental. Soil cores were continuously collected in acetate sleeves and retrieved in 4-foot increments. A 6-inch portion of the sleeve was cut and removed at the appropriate sampling depths. Encore samplers were utilized to extract sub-samples from select soil sleeves for potential analysis of VOCs. A portion of soil from each sleeve was placed into a plastic bag for screening for organic vapors and for classification. The remaining soil in the sleeve was capped, labeled and placed in an ice chest for transport, under chain-of-custody documentation, to a State of California

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certified analytical laboratory.

Soil types were identified by terminology of the Unified Soil Classification System. Identification of the sampled soils is recorded on the Boring Logs which are included in **Appendix C**. The soil types encountered beneath the Site were generally brown to reddish brown in color silts and sandy silts.

During these soil sampling activities, a Mini RAE 2000 photo-ionization detector (PID) was used to monitor the presence and level of organic vapors in the breathing zone of the workmen, and to screen soil samples. The PID was calibrated in accordance with the manufacturer's procedures. A Span Gas consisting of Isobutylene at a concentration of 100 parts per million (ppm) was used to calibrate the PID.

The portion of the soil collected for screening for organic vapors was placed in a sealable plastic bag, sealed and set in the sun for approximately ten minutes. The PID probe tip was inserted into the bag and the reading taken. The probe tip was allowed to remain in the bag until the reading peaked and the maximum reading was recorded.

PID readings measured during the investigation are noted on the boring logs **(Appendix C).** Readings were generally non-detect (0.0 ppm) throughout the Site.

5.1.3 Groundwater Sampling

Groundwater was not identified as a medium of concern based on the depth to groundwater and the lack of a direct exposure pathway and was therefore not sampled during this investigation.

5.1.4 Background Sampling

No background sampling was conducted.

5.1.5 Sample Analysis

All soil samples were delivered under chain-of-custody documentation to American Environmental Testing Laboratories (AETL) in Burbank, a State of California certified analytical laboratory, for potential analysis. The proposed rationale for analysis of soil matrix samples were outlined in the PEA Workplan dated June 27, 2014.

Selected soil matrix samples were analyzed in general accordance with the following EPA test methods:

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Agricultural Sampling

- Method 6010 – Arsenic
- Method 8015M – Total Petroleum Hydrocarbons Carbon Chain (TPHcc)
- Method 8081 – Organochlorine Pesticides (OCPs)
- Method 8082 – Polychlorinated biphenyls (PCBs)
- Method 8310 – Polynuclear Aromatic Hydrocarbons (PAHs)
- Method 9060 – Total Organic Carbon (TOC)

Fill Sampling

- Methods 6010 and 7470 - Title 22 Metals
- Method 9060 – TOC

Granite Construction Storage Yard

- Method 8015M – TPHcc
- Method 8260B - VOCs
- Methods 6010 and 7470 - Title 22 Metals

Lead-based Paint and Termiticides

- Method 6010 – Lead
- Method 8081 - OCPs

The sample analyses and rationale for each soil matrix sample is summarized in Tables 1 through 4 from the PEA Workplan in **Appendix D**.

5.1.6 Investigative Derived Waste

Investigative derived waste (IDW) consisted of used PPE, soil cuttings, and decontamination water. Used PPE was disposed of as municipal waste.

5.2 Field Variances

The following are variances from the PEA Workplan, dated June 27, 2014:

- Sample location F8 was relocated approximately 70 to the west due to access restrictions.

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5.3 Summary and Discussion of Analytical Results

The following sections describe the results of the analytical testing performed at the fixed laboratory. Copies of the laboratory analytical reports are included in **Appendix E.**

5.3.1 Agricultural Sampling

A total of 191 soil samples, 180 primary and 11 duplicates, were collected from 30 locations for analysis for agricultural chemicals. The 34 samples (30 primary and 4 duplicates) collected from the 1.5-foot depth were composited by the laboratory into nine (9) composite samples, eight (8) primary and one (1) duplicate, for analysis.

The nine (9) composite samples were analyzed for OCPs in accordance with EPA method 8081, TPHcc in accordance with EPA method 8015, and total organic carbon in accordance with EPA method 9060. Nine (9) discrete samples, one (1) from each composite group, were analyzed for arsenic in accordance with EPA method 6010. Four (4) composite samples from the proposed cut area of the Site were analyzed for PAHs in accordance with EPA method 8310. In addition, one discrete sample from the proposed borrow area (A23 at 1.5 feet bgs) was analyzed for PCBs in accordance with EPA method 8082.

Samples were evaluated relative to screening levels provided in HHRA Note 3, EPA Regional Screening Levels (RSLs) and the DTSC Methane Guidance for School Sites. Arsenic was evaluated relative to the southern California screening level.

One (1) OCP was reported in the two (2) composite samples analyzed, AC-4 and AC-6. DDE was reported at concentrations of 1.38 and 13 micrograms per kilogram (µg/kg). This is less than the screening level for residential soil of 2 mg/kg (2,000 µg/kg).

TPH, PAHs, and PCBs were non-detect in each of the samples analyzed.

Arsenic was reported in one (1) of the samples analyzed (A17 at 1.5 feet bgs) at a concentration of 2.71 mg/kg. This is less than the screening level of 12 mg/kg.
Result of the analysis for TOC in presented in 5.3.2 below.

A summary of analytical results for the agricultural samples is presented in **Tables 1 and 2**. Sample locations are presented on **Figure 6**.

5.3.2 Import Fill Material

Soil types encountered in the cut areas of the proposed school site (F1 and F2) consisted of silt and sandy silt. Soil types in the northern portion of the school site (F3

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and F4) consisted of silt with trace clay. Soil types encountered in cut area of the proposed park site (F5 through F8), proposed for use as fill at the proposed school site, consisted of clayey silts and silt.

Twenty-seven (27) samples, 24 primary and 3 duplicates, collected from the 4-foot, 8-foot and 12-foot depths were analyzed for total organic carbon. Eighteen (18) samples,16 primary and 2 duplicates, collected from the 4-foot and 8-foot depths were analyzed for Title 22 metals.

A screening level of 0.5% (5,000 mg/kg) was used to evaluate the presence of total organic carbon. Per the DTSC *Advisory on Methane Assessment and Common Remedies at School Sites*, Section 3.2, Evaluation of Fill Materials, any import fill source with TOC of 0.5% or above should be rejected.

A total of 36 soil samples were analyzed for TOC. Nine (9) composite samples from the agricultural sampling and 27 discrete samples from the fill samples.

Total organic carbon was reported in one (1) of the discrete samples (F7 at 12-feet) at a concentration of 710 mg/kg (0.071%), and in four (4) of the composite samples from 1.5 feet bgs at a maximum concentration of 2,700 mg/kg (0.27%). Reported concentrations ranged from 540 mg/kg to 2,700 mg/kg (0.054% to 0.27%). All reported TOC concentrations are less than the screening level of 0.5%.

A summary of TOC analysis is presented in **Tables 1 and 4**. Sample locations are presented on **Figure 6.**

Eight (8) metals were reported in the samples analyzed. Metals were evaluated using residential screening levels as presented in DTSC HHRA Note 3, Table 1, Recommended Screening Levels for Soil (DTSC-SL) and EPA Regional Screening Levels (RSLs).

A summary of metals reported in the proposed fill material is presented below:

Metals	Detections	Maximum Concentration (mg/kg)	Screening Level (mg/kg)
Arsenic	2	3.82	12
Barium	18	117	15,000
Chromium	17	15.1	36,000
Cobalt	17	11.1	23
Copper	15	15.8	3,100
Nickel	10	5.07	490
Vanadium	18	67.6	390
Zinc	18	50.4	23,000

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Concentrations of metals reported were significantly less than their respective residential screening levels.

Antimony, beryllium, cadmium, lead, mercury, molybdenum, selenium, silver and thallium were reported as non-detect in all samples.

See **Table 6** for a summary of metals analyses.

5.3.3 Granite Construction Storage Yard

Soil types encountered in the Granite Yard area at the northern end of the proposed school site (S1 through S6) typically consisted of sandy silt with trace clay toward the eastern end of the area. Groundwater was not encountered during our investigation.

Fourteen soil matrix samples (12 primary and 2 duplicates) collected from the 2 and 4-foot depths were analyzed for TPHcc, VOCs and metals.

Screening levels based on the Tier 1 ESLs published by the San Francisco Bay Regional Water Quality Control Board were used to evaluate TPH. The Tier 1 screening level of 100 mg/kg was used to evaluate TPH in the gasoline (C4-C12) and oil (C23 to C40) ranges, and 240 mg/kg for TPH in the diesel (C13-C22) range.

TPH in the gasoline and diesel ranges was reported as non-detect in the 14 samples analyzed. TPH in the oil range was reported in one (1) sample, S5 at 2-feet, at a concentration of 52.2 mg/kg. This is less than the screening level of 100 mg/kg.

VOCs were reported as non-detect in all of the samples analyzed.

A summary of the VOC and TPH analyses are presented in **Table 3**. Sample locations are indicated on **Figure 7.**

Eight (8) metals were reported in the samples analyzed in the Granite Yard area. Metals were evaluated using residential screening levels as presented in DTSC HHRA Note 3, Table 1, Recommended Screening Levels for Soil and EPA Regional Screening Levels (RSLs).

A summary of metals reported is presented below:

Metals	Detections	Maximum Concentration (mg/kg)	Screening Level (mg/kg)
Arsenic	12	2.26	12

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Metals	Detections	Maximum Concentration (mg/kg)	Screening Level (mg/kg)
Barium	14	142	15,000
Chromium	14	11.2	36,000
Cobalt	14	7.08	23
Copper	14	16.7	3,100
Nickel	8	3.97	490
Vanadium	14	46.7	390
Zinc	14	39.4	23,000

Concentrations of metals reported were significantly less than their respective residential screening levels.

Antimony, beryllium, cadmium, lead, mercury, molybdenum, selenium, silver and thallium were reported as non-detect in all samples.

See **Table 6** for a summary of metals analyses.

5.3.4 Lead-based Paint and Termiticides

A total of 64 soil samples, 60 primary and four (4) duplicates, were collected from 10 locations (L1 through L10) around the residential structure and outbuildings located at the northwest corner of the proposed school site. Samples were collected from depths of 1.5, 2, 2.5, 3, 3.5 and 4-feet bgs.

Fourteen (14) samples, 10 primary and four (4) duplicates from the 1.5-foot depth were analyzed for lead in accordance with EPA method 6010.

Lead was evaluated relative to the DTSC HHRA Note 3 residential screening level of 80 mg/kg. Lead was reported as non-detect in all samples analyzed.

The samples from the 1.5-foot depth were composited by the laboratory into four (4) composite samples, three (3) primary and one (1) duplicate. Samples were analyzed for OCPs in accordance with EPA method 8081. OCPs were evaluated using residential screening levels presented in Table 1 of the DTSC HHRA Note 3 and the EPA RSLs.

One (1) OCP, Chlordane, was reported in two (2) samples (LC-1 and the duplicate DLC-1) at concentrations of 1.32 and 2.59 µg/kg. These are less than the residential screening level of 440 µg/kg.

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Samples locations are presented on **Figure 8**, a summary of the results is presented in **Table 5 and Table 1**.

5.4 Quality Assurance and Quality Control

During this PEA investigation, a variety of data was collected. Each sample collected was analyzed for a number of different constituents, depending on the rationale for sample collection. However, not all chemicals detected can be attributable to an on-site release and not all the data is of equal quality. Data collected has been evaluated to determine which of the chemicals identified are likely to be Site-related and to assess whether the reported concentrations for these chemicals are of acceptable quality for use in the screening evaluation. Following is a discussion of the evaluations conducted.

5.4.1 Evaluation of Analytical Methods

The analytical methodology used for data collection was determined in consultation with the DTSC during the development of the Tech Memo Workplan Document. Analyses selected for each sample have been deemed appropriate based on the rationale and ability of the method to provide data for use in the screening evaluation.

Soil samples were collected under the supervision of a California Professional Geologist. Sample locations were verified prior to collection. All sampling and drilling equipment was decontaminated between uses to avoid cross contamination between probes/borings and samples. Once soil samples were collected, they were labeled, logged, and placed on ice for transport to the analytical laboratory. Samples to be analyzed for TPH as gasoline and/or VOCs were generally collected utilizing Encore type samplers in general accordance with EPA Method 5035.

Laboratory quality control procedures included the preparation of matrix spikes and matrix spike duplicates, laboratory control spikes and laboratory control spike duplicates. Recovery for all matrix and laboratory spikes was within acceptable parameters. A statement, certifying that all analytical work was in accordance with the published QA/QC procedures and signed by the laboratory QA/QC manager, is included as part of the analytical results.

5.4.2 Evaluation of Detection Limits

Detection limits associated with the analytical data were reviewed before eliminating chemicals because they were not detected. Laboratory method detection limits are listed in Tables 1 through 4 of the Quality Assurance Project Plan (QAPP) prepared prior to conducting the field activities. Evaluation of the detection limits indicate that they were sufficiently low enough to identify constituents of concern.

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5.4.3 Evaluation of Qualified Data

For analytical results, various qualifiers pertaining to the quality of the data are attached to certain data by either the laboratories conducting the analysis or by persons conducting the data evaluation (procedures for data validation are discussed in the QAPP).

5.4.3.1 Data Quality Objectives

The DTSC has required, and this project has incorporated, certain specified protocols to document the quality of the data collected during this investigation. Soil samples were collected in compliance with U.S. EPA SW-846. The laboratory detection limits are indicated in Tables 1 through 4 of the QAPP for the analytical methods utilized. The use of these Data Quality Objectives for school study sites, including the Site, is to produce data that are suitable for use for a PEA screening risk evaluation.

The objectives of precision, accuracy, completeness, representativeness and comparability typically define the data quality. The use of these Data Quality Objectives for school study sites, including the Site, is to produce data that are suitable for use for a PEA screening risk evaluation.

Precision is the degree of agreement between independent measurements. Precision can be evaluated through the use of duplicate samples. Precision between duplicate or co-located soil samples can vary due to the inherent heterogeneity of soil. If duplicate field samples exceed and relative percent difference (RPD) of 100 for soil, data will be qualified as described in the applicable validation procedure. The relative percent difference (RPD) is calculated as follows:

$$\%RPD = 200 \times \frac{X_2 - X_1}{X_2 + X_1}$$

where X_1 is the larger of the two observed values, and X_2 is the smaller of the two observed values.

The duplicate samples collected were in general conformance with the primary samples collected. Samples in which the duplicate samples indicated a greater concentration than the primary sample; the greater concentration was used in evaluating the Site.

Except for one (1) duplicate pair for OCPs and four (4) duplicate pairs for metals, all duplicate pairs were reported as non-detect.

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The relative percent difference (RPD) was calculated for the four (4) duplicate sample pairs for metals and one (1) for OCPS. The RPDs generally indicated good conformance. One pair indicated an RPD greater than 100. A summary of the RPDs is presented in **Table 7.**

Samples in which the RPD exceeds 100 are considered estimated. While the results are considered estimated, the results are valid as usable data. The sample pair indicating an RPD greater than 100 was from a sample reported at a low concentration, and the duplicate reported as non-detect.

Accuracy is the degree of agreement of a measured value with true or expected value. Accuracy can be measured using percent recovery data in the laboratory using spiked concentrations. Accuracy is a statistical measurement of correctness and includes components of random error and systematic error. It reflects the total error associated with a measurement. A measurement is accurate when the value reported does not differ from the true value or known concentration of the spike or standard.

Accuracy of laboratory analyses will be assessed by laboratory control samples, surrogate standards, matrix spikes, and initial and continuing calibrations of instruments. Laboratory accuracy is expressed as the percent recovery (%R). Accuracy limits are statistically generated by the laboratory or required by specified EPA methods. Surrogate percent recovery and control limits will be included in the PEA report. If the percent recovery is determined to be outside of acceptance criteria, data will be qualified as described in the applicable validation procedure. The calculation of percent recovery is provided below:

$$\%RPD = 100 \times \frac{X_s - X}{T}$$

where X_s is the measured value of the spiked sample, X is the measured value of the unspiked sample, and T is the true value of the spike solution added.

Review of laboratory analytical data indicated that the data is accurate.

Surrogates, laboratory control samples and duplicates and matrix spike samples and duplicates were within control parameters. No data was qualified except for results that were identified with a “j” flag. This data is considered estimated as the concentration reported is between the method detection limit and the practical quantitation limit. While the results are considered estimated, the results are valid as usable data.

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Completeness is the percent of measurements made which are judged to be valid. Completeness can be measured by dividing the number of samples that are judged to be valid by the number of total samples

Based upon the data reviewed all samples were judged to be useable for the intended purpose.

Representativeness is the degree to which the sample data represent the characteristics of a population. Representativeness is a qualitative parameter that addresses the design of the sampling program. An example of representativeness is to evaluate if the number and locations of samples are sufficient for the purposes of this assessment. The degree to which representativeness is achieved will be evaluated upon review of the data and will be used to determine whether additional investigation is required.

Based upon the objectives of this investigation the Site appears to be adequately assessed.

Comparability is a qualitative parameter that evaluates the confidence with which one data set can be compared to another. Comparability can be enhanced by using standard analytical methods performed by certified laboratories.

Standard EPA analytical methods, performed by State of California certified analytical laboratories were utilized in this investigation. Evaluation of the data collected during this investigation indicates that the level of confidence of the compared data sets is acceptable.

5.4.4 Evaluation of Blanks

In addition to the duplicate soil samples, rinseate blanks were collected and tested for QA/QC confirmation. The rinseate blank was collected by pouring distilled water over the sampling equipment at the end of the day. The equipment blank was analyzed for the following constituents:

- Methods 6010 and 7470 - Title 22 Metals
- Method 8015M – Total Petroleum Hydrocarbons Carbon Chain (TPHcc)
- Method 8081 – Organochlorine Pesticides (OCPs)
- Method 8082 – Polychlorinated biphenyls (PCBs)
- Method 8260B – VOCs
- Method 9060 – Total Organic Carbon (TOC)

The equipment blank sample reported non-detect for all analyses.

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6.0 HUMAN HEALTH SCREENING EVALUATION

The purpose of a human health screening risk evaluation is to estimate the potential chronic human health risk/hazard from soil and groundwater contamination at the Site. This screening evaluation is intended to be a health-conservative preliminary evaluation of potential risk and hazard and, therefore, assumes that the Site will be used for residential purposes, the scenario that would result in the greatest exposure and risk. This initial screening evaluation will assist in deciding whether further site characterization, risk assessment, or remediation is necessary. The recommendations presented in this section are intended only for a human health screening risk evaluation. DTSC's Human and Ecological Risk Office (HERO) *Human Health Risk Assessment (HHRA) Note 4* provides additional guidance on carrying out a screening level human health risk evaluation and is updated as needed.

The initial screening risk approach is to calculate the estimated risk or hazard posed by the maximum concentration of a chemical detected in each medium using an established human health-risk-based residential screening level/concentration as a comparator, that is, the USEPA Regional Screening Level (RSL) for residential land use, modified as necessary by DTSC in HHRA Note 3. The basic screening risk equations for each medium (soil, water, air) are as follows.

For a carcinogenic chemical: The screening concentration is based on a target cancer risk of one-in-a-million (10^{-6}).

$$\frac{\text{Maximum Concentration}}{\text{Screening Concentration}} \times 10^{-6} = \text{Cancer Risk}$$

For a non-carcinogenic chemical: The screening concentration is based on a target Hazard Quotient (HQ) of one.

$$\frac{\text{Maximum Concentration}}{\text{Screening Concentration}} = \text{Hazard Quotient}$$

Site history and background information indicated Site uses of concern include former agricultural and residential uses. In addition, construction equipment was stored on the northern portion of the Site.

Consistent with the DTSC PEA Guidance Manual [DTSC, 2015] for conducting a human health screening evaluation, it was conservatively assumed that the entire Site was uncovered and that bare soils were available for direct human contact under a hypothetical residential exposure scenario. The exposure routes of concern for these residents include incidental soil ingestion, dermal contact, and outdoor inhalation of fugitive dust. Direct soil contact or inhalation exposures were quantitatively evaluated in

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this PEA even though they are unlikely to occur because the Site is anticipated to be primarily paved and/or under a building footprint once the school is built.

The conceptual site model (CSM) for the Site is presented in **Figure 5.**

The maximum concentrations of the following chemicals reported from the investigation were evaluated:

- Chlordane
- DDE
- TPH, oil range
- Barium
- Chromium
- Cobalt
- Copper
- Nickel
- Vanadium
- Zinc

Screening levels for chlordane, chromium, nickel and vanadium were obtained from Table 1 of the DTSC HHRA Note #3.

Screening levels for DDE, oil range TPH, barium, cobalt, copper and zinc were calculated using the EPA RSL Calculator. A copy of the calculations is provided in **Appendix F**. TPH in the in the oil range was assumed to be 100% aromatic.

Based on the maximum concentrations of all chemicals reported (except arsenic, see below) the calculated carcinogenic risk is **3.6×10^{-8}**. This is less than the target risk of 1×10^{-6}.

The calculated hazard quotient was **0.696**. This is less than the target of 1.

A summary of the risk and hazard calculations is provided in **Table 8.**

Arsenic was also identified as a COPC; however, it was evaluated separately based on the current DTSC screening level of 12 mg/kg. The maximum concentration of arsenic, reported as 3.82 mg/kg in a duplicate sample collected from location F3 at 8-feet, is less than this screening level.

6.1 Uncertainty Analysis

The purpose of a risk assessment is not to predict the actual risk of exposure to an individual. Rather, risk assessments are a management tool for developing

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conservative estimates of health hazards, which are unlikely to underestimate the true risk for potentially exposed populations.

As a result, the numerical estimates in a risk assessment (risk values) have associated uncertainties reflecting the limitations in available knowledge about the Site, concentrations, exposure assumptions (e.g., chronic exposure concentrations, intake rates, frequency of time spent at home), and chemical toxicity. Where information is incomplete, conservative (erring or being over-protective) assumptions must be made. In other words, although calculations of exposure often must be simplified to a few pathways or subgroups within a population, the simplifying assumptions should be more likely to overestimate rather than underestimate risk so that public health is protected regardless of other unknown conditions. Even when actual characteristics of a population are known, assumptions on exposure are often biased toward producing over-protective rather than under-protective health risk estimates for the majority of the population.

The risk estimates presented in this screening evaluation were based on a residential exposure of 350 days per year for 26 years. This is a conservative estimate since the more realistic scenario is for school-based exposures of staff and students. When the school-based scenario is assumed, all cancer risk estimates would fall lower than what was estimated for the resident. This decrease is due to exposures being far less intensive that what was assumed in this screening evaluation (e.g., all soil uncovered for the residential exposure scenario). When accounting for the actual, proposed land-use, much of the soil will remain covered with asphalt pavement, buildings, landscape, and hardscape and thus, will prevent exposure to chemicals detected in soil.

In summary, because a screening evaluation contains multiple sources of uncertainty, simplifying assumptions are often made so that health risks can be estimated. The screening evaluation is intended to overestimate rather than underestimate potential risk. The results of this assessment are therefore likely to be protective of health.

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7.0 ECOLOGICAL SCREENING EVALUATION

The purpose of the ecological screening evaluation is to provide a qualitative evaluation of the potential risk to non-human receptors for Site contaminants.

7.1 Site Characterization

The Site is a 12.7 acre, generally undeveloped lot in the Meadowood Development in the Fallbrook Planning Area in the County of San Diego, located north of Highway 76 (Pala Road) and east of Interstate 15.

The Site contains vacant agricultural land. The COCs that were initially identified in the subsurface soils at the Site included TPH, OCPs, TOC and metals. The concentrations of these chemicals at the Site and their chemical characteristics are well below human health and hazardous waste levels and are discussed in detail in Sections 5 and 6.

7.2 Biological Characterization

Biological resources include agriculture and coast live oak woodland. Critical habitats and special status species are located in the vicinity of the Site. Biological resources were evaluated in the final environmental impact report (FEIR) prepared for larger Meadowood Development (Property) of which this Site is a part. Mitigation measures have been established to mitigate potential impacts to biological resources from the development of the Project and the Site.

7.3 Pathway Assessment

Exposure is defined as the contact of an organism with a chemical or physical agent. For an exposure pathway to be complete, there must be 1) a source of contamination or release for a source, 2) an exposure point where contact can occur, and 3) an exposure route by which contact can occur. All exposure pathways at the Site are complete due to biological receptors in the area.

7.4 Qualitative Summary

The Site and the surrounding area contain wildlife habitats. However, the COCs present in the material beneath the Site do not pose a present or future threat to the ecosystem due to the low levels reported.

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8.0 CONCLUSIONS AND RECOMMENDATIONS

8.1 Conclusions

Based on the findings of this PEA investigation, the objectives have been met. The following sections summarize the findings and provide conclusions that can be made relative to the Site.

8.1.1 Soil Matrix Results

The following is a summary of the findings for the soil matrix samples collected as part of this investigation.

- No VOCs, PCBs, PAHs, or TPH in the gasoline and diesel ranges were reported in the soil samples analyzed during this investigation.
- Total Petroleum Hydrocarbons in the oil range (C23-C40) was reported in one (1) soil sample at a concentration of 52.2 mg/kg, which is less than the screening level of 100 mg/kg.
- Arsenic was reported in 15 of 41 soil samples analyzed during this investigation at a maximum concentration of 3.82 mg/kg, which is less than the screening level of 12 mg/kg.
- Lead was reported as non-detect in all 43 soil samples analyzed.
- Eight (8) metals, arsenic, barium, chromium, cobalt, copper, nickel, vanadium and zinc, were reported at concentrations well below their residential screening levels.
- Two (2) OCPs, DDE and chlordane, were reported in 4 of the 13 composite soil samples analyzed at maximum concentrations of 13 and 2.59 µg/kg respectively. These concentrations are less than their respective screening levels of 2,000 and 440 µg/kg.
- Total organic carbon was reported in 5 of the 36 soil samples analyzed at a maximum concentration of 2,700 mg/kg (0.27%), which is less than the DTSC recommended threshold of 0.5% in potential fill soils.

8.1.2 Human Health Screening Evaluation

The results of the human health screening evaluation conducted utilizing a conservative, hypothetical residential use scenario indicated that chemicals detected at the Site will not pose a health risk to future school occupants:

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- The total estimated cancer risk for the Site based on the maximum concentrations is 3.6×10^{-8}. This is less than the target goal of 1.0×10^{-6}.
- The Hazard index for the Site is 0.696. This is less than the target of 1.

8.2 Recommendations

The upper 1-foot of soil at the proposed school site should be removed and disposed of offsite prior to fill activities.

Evaluation of the soil in the proposed borrow areas indicate that the soils tested are acceptable for use as fill material at the proposed school site, provided the upper 1-foot of soil is first removed and disposed of offsite.

Based upon the results of this and previous investigations and the planned removal of the upper 1-foot of soil, no further action is recommended. No further testing should be required following the conclusion of grading activities.

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9.0 LIMITATIONS

This report has been prepared for the sole benefit and exclusive use of Pardee Homes as it pertains to the proposed school site (Site) to be located at the Meadowood Development in the Fallbrook Planning Area of San Diego County. Our services have been performed in accordance with applicable state and local ordinances and generally accepted practices in the geosciences. No other warranty, either expressed or implied, is made.

Reliance on this report by third parties is at the third parties sole risk. Site exploration identifies actual subsurface conditions only at those points where samples are taken, when they are taken. Data derived through sampling and analytical testing are extrapolated by geoscientists who then render an opinion about overall general subsurface conditions. Actual conditions in areas not sampled may differ from predictions. Converse is not responsible or liable for any claims or damages associated with the accuracy or completeness of information provided by others. This report should not be regarded as a guarantee that no further contamination, beyond that which was detected in our investigation, is present beneath the Site. In the event that changes in the nature of the Site occur, or additional, relevant information about the Site is brought to our attention, the conclusions and recommendations contained in this report may not be valid unless these changes and additional relevant information are reviewed and the conclusions of this report are modified or verified in writing.

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10.0 REFERENCES

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Tables

Tables

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Table 1

Summary of Analytical Results
Agricultural Samples
Proposed School Site
Meadowood, Fallbrook, CA

Site Location	Composite Sample	Sample Locations	Sample Depth (feet bgs)*	Date	OCP - EPA 8081 µg/kg		TPH - mg/kg			PAHS EPA 8310 µg/kg	TOC mg/kg
					DDE	chlordane	C4-C12	C13-C22	C23-C40		
Proposed School Site	AC-1	A1, A2, A3, A4	1.5	12/19/2016	ND	ND	ND	ND	ND	NA	ND
	DAC-1	DA1, DA2, DA3, DA4	1.5	12/19/2016	ND	ND	ND	ND	ND	NA	ND
	AC-2	A5, A6, A7, A8	1.5	12/19/2016	ND	ND	ND	ND	ND	NA	ND
	AC-3	A9, A10, A11, A12	1.5	12/19/2016	ND	ND	ND	ND	ND	NA	ND
	AC-4	A13, A14, A15, A16,	1.5	12/19/2016	**13**	ND	ND	ND	ND	NA	**2,700**
	AC-5	A17, A18	1.5	12/20/2016	ND	ND	ND	ND	ND	ND	**1,300**
	AC-6	A19, A20, A21, A22	1.5	12/20/2016	***1.38***	ND	ND	ND	ND	ND	**540**
	AC-7	A23, A24, A25, A26	1.5	12/20/2016	ND	ND	ND	ND	ND	ND	**1,200**
	AC-8	A27, A28, A29, A30	1.5	12/20/2016	ND	ND	ND	ND	ND	ND	ND
Residential Structure	LC1	L1, L2, L3, L4	1.5	12/20/2016	ND	***1.32***	NA	NA	NA	NA	NA
	DLC-1	DL1, DL2, DL3, DL4	1.5	12/20/2016	ND	**2.59**	NA	NA	NA	NA	NA
Garage 1	LC2	L5, L6, L7	1.5	12/20/2016	ND	ND	NA	NA	NA	NA	NA
Garage 2	LC3	L8, L9,L10	1.5	12/20/2016	ND	ND	NA	NA	NA	NA	NA
	Method Detection Limit (MDL)				1	1	0.1	1	1	--	500
	Screening Level				2,000	440	100	240	100	--	5000

italics indicate an estimated concentration between the MDL and PQL

mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
bgs = below ground surface
OCPs = Organochlorine pesticides
TPH = Total Petroleum Hydrocarbons
PAHs = Polynuclear Aromatic Hydrocarbons
TOC = Total Organic Carbon
ND = Not reported above the MDL
NA = Not analyzed
PQL = Practical quantitation limit

Table 2
Summary of Analytical Results
Arsenic
Proposed School Site
Meadowood, Fallbrook, CA

Site Location	Boring Location	Sample Depth (feet bgs)	Date	Arsenic
				EPA 6010
Proposed School Site	A1	1.5	12/19/2016	ND
	DA-1	1.5	12/19/2016	ND
	A5	1.5	12/19/2016	ND
	A9	1.5	12/19/2016	ND
	A13	1.5	12/19/2016	ND
	A17	1.5	12/20/2016	***2.71***
Proposed Borrow Area	A19	1.5	12/20/2016	ND
	A23	1.5	12/20/2016	ND
	A27	1.5	12/20/2016	ND
	Method Dectection Limit (MDL)			2.5
	Screening Level			12

all concentrations in milligrams per kilogram (mg/kg)

bgs = below ground surface
ND = Not reported above the MDL

Table 3
Summary of Analytical Results
Stained Soil at Grannite Yard
Proposed School Site
Meadowood, Fallbrook, CA

Site Location	Boring Location	Sample Depth (feet bgs)	Date	TPH - EPA 8015			VOCs EPA 8260
				C4-C12	C13-C22	C23-C40	All
Stained Soil at the Granite Yard	S1	2	12/19/2016	ND	ND	ND	ND
	S1	4	12/19/2016	ND	ND	ND	ND
	S2	2	12/19/2016	ND	ND	ND	ND
	DS1	2	12/19/2016	ND	ND	ND	ND
	S2	4	12/19/2016	ND	ND	ND	ND
	S3	2	12/19/2016	ND	ND	ND	ND
	DS2	2	12/19/2016	ND	ND	ND	ND
	S3	4	12/19/2016	ND	ND	ND	ND
	S4	2	12/19/2016	ND	ND	ND	ND
	S4	4	12/19/2016	ND	ND	ND	ND
	S5	2	12/19/2016	ND	ND	**52.2**	ND
	S5	4	12/19/2016	ND	ND	ND	ND
	S6	2	12/19/2016	ND	ND	ND	ND
	S6	4	12/19/2016	ND	ND	ND	ND
	Method Detection Limit (MDL)			0.1	1	1	--
	Screening Level			100	240	100	--

bgs = below ground surface
TPH = Total Petroleum Hydrocarbons
VOCs = Volatile Organic Compounds
ND = Not reported above the MDL

Table 4
Summary of Analytical Results
Fill Samples - Total Organic Carbon
Proposed School Site
Meadowood, Fallbrook, CA

Site Location	Boring Location	Sample Depth (feet bgs)	Date	TOC EPA 9060A mg/kg	TOC EPA 9060A %
Cut Area of Proposed School Site	F1	4	12/19/2016	ND	ND
		8	12/19/2016	ND	ND
		8 (DF1)	12/1/1916	ND	ND
		12	12/19/2016	ND	ND
	F2	4	12/19/2016	ND	ND
		4 (DF2)	12/19/2016	ND	ND
		8	12/19/2016	ND	ND
		8 (DF3)	12/19/2016	ND	ND
		12	12/19/2016	ND	ND
	F3	4	12/19/2016	ND	ND
		8	12/19/2016	ND	ND
		12	12/19/2016	ND	ND
	F4	4	12/19/2016	ND	ND
		8	12/19/2016	ND	ND
		12	12/19/2016	ND	ND
Proposed Borrow Area	F5	4	12/20/2016	ND	ND
		8	12/20/2016	ND	ND
		12	12/20/2016	ND	ND
	F6	4	12/20/2016	ND	ND
		8	12/20/2016	ND	ND
		12	12/20/2016	ND	ND
	F7	4	12/20/2016	ND	ND
		8	12/20/2016	ND	ND
		12	12/20/2016	**710**	**0.07%**
	F8	4	12/20/2016	ND	ND
		8	12/20/2016	ND	ND
		12	12/20/2016	ND	ND
	Reporting Limit (RL)			500	0.05%
	Screening Level			5000	0.50%
	Samples Analyzed			27	
	Count >ND			1	

mg/kg = milligrams per kilogram
bgs = below ground surface
TOC = Total Organic Carbon
ND = Not reported above the RL

Table 5
Summary of Analytical Results
Lead Based Paint in Soil and Termiticides
Proposed School Site
Meadowood, Fallbrook, CA

Site Location	Boring Location	Sample Depth (feet bgs)	Date	Lead EPA 6010 mg/kg
Residential Structure	L1	1.5	12/20/2016	ND
	DL1	1.5	12/20/2016	ND
	L2	1.5	12/20/2016	ND
	DL2	1.5	12/20/2016	ND
	L3	1.5	12/20/2016	ND
	DL3	1.5	12/20/2016	ND
	L4	1.5	12/20/2016	ND
	DL4	1.5	12/20/2016	ND
Garage 1	L5	1.5	12/20/2016	ND
	L6	1.5	12/20/2016	ND
	L7	1.5	12/20/2016	ND
Garage 2	L8	1.5	12/20/2016	ND
	L9	1.5	12/20/2016	ND
	L10	1.5	12/20/2016	ND
	Method Detection Limit (MDL)			2.5

mg/kg = milligrams per kilogram
bgs = below ground surface
ND = Not reported above the MDL

Table 6
Summary of Analytical Results
Title 22 Metals
Proposed School Site
Meadowood, Fallbrook, CA

Site Location	Boring Location	Sample Depth (feet bgs)	Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	thallium	Vanadium	Zinc
Stained Soil at Granite Yard	S1	2	12/19/2016	ND<1.0	***2***	**85.7**	ND<1.3	ND<1.3	**5.97**	**6.51**	**8.18**	ND<2.5	ND<0.1	ND<2.5	***2.52***	ND<1.0	ND<2.5	ND<1.0	**41.9**	**36.5**
		4	12/19/2016	ND<1.0	***2.26***	**83.9**	ND<1.3	ND<1.3	**6.94**	**5.6**	**5.77**	ND<2.5	ND<0.1	ND<2.5	ND<2.5	ND<1.0	ND<2.5	ND<1.0	**39.5**	**32.4**
	S2	2	12/19/2016	ND<1.0	***2.15***	**84.3**	ND<1.3	ND<1.3	**6.46**	**6.35**	**7.31**	ND<2.5	ND<0.1	ND<2.5	ND<2.5	ND<1.0	ND<2.5	ND<1.0	**45.9**	**33.8**
		2 (DS1)	12/19/2016	ND<1.0	ND<1.0	**78.5**	ND<1.3	ND<1.3	***4.85***	**6.26**	**16.7**	ND<2.5	ND<0.1	ND<2.5	ND<2.5	ND<1.0	ND<2.5	ND<1.0	**39.8**	**38.3**
		4	12/19/2016	ND<1.0	***1.42***	**90.4**	ND<1.3	ND<1.3	***4.32***	**7**	**5.19**	ND<2.5	ND<0.1	ND<2.5	ND<2.5	ND<1.0	ND<2.5	ND<1.0	**43.4**	**35.8**
	S3	2	12/19/2016	ND<1.0	***2.10***	**142**	ND<1.3	ND<1.3	**7.87**	**6.28**	**7.57**	ND<2.5	ND<0.1	ND<2.5	***2.64***	ND<1.0	ND<2.5	ND<1.0	**45.3**	**33.6**
		2 (DS2)	12/19/2016	ND<1.0	***2.15***	**68.3**	ND<1.3	ND<1.3	**9.11**	**5.33**	**9.76**	ND<2.5	ND<0.1	ND<2.5	**2.78J**	ND<1.0	ND<2.5	ND<1.0	**46.7**	**36.3**
		4	12/19/2016	ND<1.0	***2.18***	**79.7**	ND<1.3	ND<1.3	**6.33**	**6.93**	**7.37**	ND<2.5	ND<0.1	ND<2.5	***2.69***	ND<1.0	ND<2.5	ND<1.0	**45.4**	**35.5**
	S4	2	12/19/2016	ND<1.0	***2.02***	**89.1**	ND<1.3	ND<1.3	**7.46**	**6.28**	**7.78**	ND<2.5	ND<0.1	ND<2.5	***2.75***	ND<1.0	ND<2.5	ND<1.0	**42.6**	**35.2**
		4	12/19/2016	ND<1.0	***1.83***	**64.2**	ND<1.3	ND<1.3	**10**	**5.57**	**8.85**	ND<2.5	ND<0.1	ND<2.5	***2.97***	ND<1.0	ND<2.5	ND<1.0	**39.6**	**26.4**
	S5	2	12/19/2016	ND<1.0	***1.82***	**81.5**	ND<1.3	ND<1.3	**8.59**	**6.54**	**8.46**	ND<2.5	ND<0.1	ND<2.5	***3.1***	ND<1.0	ND<2.5	ND<1.0	**41.5**	**33.8**
		4	12/19/2016	ND<1.0	***1.39***	**52.9**	ND<1.3	ND<1.3	**8.52**	**5.27**	**8.12**	ND<2.5	ND<0.1	ND<2.5	***2.88***	ND<1.0	ND<2.5	ND<1.0	**35.9**	**25**
	S6	2	12/19/2016	ND<1.0	***1.53***	**100**	ND<1.3	ND<1.3	**5.46**	**6.48**	**6.11**	ND<2.5	ND<0.1	ND<2.5	ND<2.5	ND<1.0	ND<2.5	ND<1.0	**43.3**	**39.4**
		4	12/19/2016	ND<1.0	ND<1.0	**82.5**	ND<1.3	ND<1.3	**11.2**	**7.08**	**14.4**	ND<2.5	ND<0.1	ND<2.5	***3.97***	ND<1.0	ND<2.5	ND<1.0	**43.9**	**31.9**
Cut Area of Proposed School Site	F1	2	12/19/2016	ND<1.0	ND<1.0	**59.7**	ND<1.3	ND<1.3	***4.67***	***4.9***	***2.51***	ND<2.5	ND<0.1	ND<2.5	ND<2.5	ND<1.0	ND<2.5	ND<1.0	**19.8**	**23.9**
		8	12/19/2016	ND<1.0	ND<1.0	**43.3**	ND<1.3	ND<1.3	***2.82***	**5.55**	ND<2.5	ND<2.5	ND<0.1	ND<2.5	ND<2.5	ND<1.0	ND<2.5	ND<1.0	**17.3**	**20.1**
		8 (DF1)	12/19/2016	ND<1.0	ND<1.0	**49**	ND<1.3	ND<1.3	***3.24***	**5.23**	ND<2.5	ND<2.5	ND<0.1	ND<2.5	ND<2.5	ND<1.0	ND<2.5	ND<1.0	**20.8**	**23.5**
	F2	2	12/19/2016	ND<1.0	***2.34***	**114**	ND<1.3	ND<1.3	**15.1**	**8.59**	**15.8**	ND<2.5	ND<0.1	ND<2.5	**5.07**	ND<1.0	ND<2.5	ND<1.0	**57.1**	**44.8**
		8	12/19/2016	ND<1.0	ND<1.0	**58.2**	ND<1.3	ND<1.3	**9.86**	**5.09**	**11.2**	ND<2.5	ND<0.1	ND<2.5	***3.1***	ND<1.0	ND<2.5	ND<1.0	**34.4**	**30.9**
	F3	2	12/19/2016	ND<1.0	ND<1.0	**77.6**	ND<1.3	ND<1.3	***4.45***	**6.08**	**5.04**	ND<2.5	ND<0.1	ND<2.5	ND<2.5	ND<1.0	ND<2.5	ND<1.0	**42.6**	**33.6**
		8	12/19/2016	ND<1.0	ND<1.0	**68.2**	ND<1.3	ND<1.3	**6.35**	**5.27**	**7.34**	ND<2.5	ND<0.1	ND<2.5	ND<2.5	ND<1.0	ND<2.5	ND<1.0	**36.5**	**28.2**
		8 (DF3)	12/19/2016	ND<1.0	***3.82***	**95.7**	ND<1.3	ND<1.3	**11.4**	**6.77**	**12.4**	ND<2.5	ND<0.1	ND<2.5	***4.52***	ND<1.0	ND<2.5	ND<1.0	**44.6**	**40.2**
	F4	2	12/19/2016	ND<1.0	ND<1.0	**76.3**	ND<1.3	ND<1.3	**12.3**	**6.89**	**10.1**	ND<2.5	ND<0.1	ND<2.5	***3.65***	ND<1.0	ND<2.5	ND<1.0	**47.2**	**31.1**
		8	12/19/2016	ND<1.0	ND<1.0	**92**	ND<1.3	ND<1.3	**12.8**	**6.42**	**8.37**	ND<2.5	ND<0.1	ND<2.5	***3.81***	ND<1.0	ND<2.5	ND<1.0	**47**	**47.3**
Proposed Borrow Area	F5	2	12/20/2016	ND<1.0	ND<1.0	**107**	ND<1.3	ND<1.3	**5.56**	**6.19**	**6.41**	ND<2.5	ND<0.1	ND<2.5	ND<2.5	ND<1.0	ND<2.5	ND<1.0	**48.2**	**46.9**
		8	12/20/2016	ND<1.0	ND<1.0	**94**	ND<1.3	ND<1.3	**7.97**	**7.3**	**6.91**	ND<2.5	ND<0.1	ND<2.5	***2.89***	ND<1.0	ND<2.5	ND<1.0	**48.7**	**45.8**
	F6	2	12/20/2016	ND<1.0	ND<1.0	**76.4**	ND<1.3	ND<1.3	**7.9**	**5.45**	**5.81**	ND<2.5	ND<0.1	ND<2.5	***3.22***	ND<1.0	ND<2.5	ND<1.0	**40.9**	**28.5**
		8	12/20/2016	ND<1.0	ND<1.0	**101**	ND<1.3	ND<1.3	**14.2**	**6.94**	**7.37**	ND<2.5	ND<0.1	ND<2.5	***3.8***	ND<1.0	ND<2.5	ND<1.0	**63.8**	**43.6**
	F7	2	12/20/2016	ND<1.0	ND<1.0	**6.63**	ND<1.3	ND<1.3	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<0.1	ND<2.5	ND<2.5	ND<1.0	ND<2.5	ND<1.0	***4.1***	***2.71***
		8	12/20/2016	ND<1.0	ND<1.0	**117**	ND<1.3	ND<1.3	**6.5**	**8.35**	**5.52**	ND<2.5	ND<0.1	ND<2.5	ND<2.5	ND<1.0	ND<2.5	ND<1.0	**63.9**	**44**
	F8	2	12/20/2016	ND<1.0	ND<1.0	**103**	ND<1.3	ND<1.3	**14.8**	**11.1**	**7.89**	ND<2.5	ND<0.1	ND<2.5	***4.68***	ND<1.0	ND<2.5	ND<1.0	**67.6**	**40.7**
		8	12/20/2016	ND<1.0	ND<1.0	**103**	ND<1.3	ND<1.3	**11.1**	**7.44**	**9.6**	ND<2.5	ND<0.1	ND<2.5	***4.11***	ND<1.0	ND<2.5	ND<1.0	**63.5**	**50.4**
	Samples Analyzed			32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
	Count >nd			0	14	32	0	0	31	31	29	0	0	0	18	0	0	0	32	32
	Maximum Concentration			0	3.82	142	0	0	15.1	11.1	16.7	0	0	0	5.07	0	0	0	67.6	50.4
	Screening Level			31	12	15000	15	5.2	36000	23	3100	80	1	390	490	390	390	0.78	390	23000

all concentrations in milligrams per kilogram (mg/kg)
Italics indicate an estimated concentration between the MDL and PQL
Screening levels based on DTSC HHRA Note #3 and EPA Regional Screening Levels

bgs = below ground surface
ND = Not reported above the MDL
PQL = Practical quantitation limit
MDL = Method Detection Limit

Table 7
Relative Percent Difference
Duplicate CAM Metals Analyses
Proposed School Site
Meadowood, Fallbrook, CA

			Title 22 Metals - Milligrams per Kilogram																
Boring Location	**Sample Depth (feet bgs)**	**Date**	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	thallium	Vanadium	Zinc
S2	2	12/19/2016	ND<1.0	***2.15***	**84.3**	ND<1.3	ND<1.3	**6.46**	**6.35**	**7.31**	ND<2.5	ND<0.1	ND<2.5	ND<2.5	ND<1.0	ND<2.5	ND<1.0	**45.9**	**33.8**
	2 (DS1)	12/19/2016	ND<1.0	1	**78.5**	ND<1.3	ND<1.3	***4.85***	**6.26**	**16.7**	ND<2.5	ND<0.1	ND<2.5	ND<2.5	ND<1.0	ND<2.5	ND<1.0	**39.8**	**38.3**
	RPD			**73.0159**	**7.12531**			**28.4704**	**1.42744**	**-78.217**								**14.2357**	**-12.483**
S3	2	12/19/2016	ND<1.0	***2.1***	**142**	ND<1.3	ND<1.3	**7.87**	**6.28**	**7.57**	ND<2.5	ND<0.1	ND<2.5	***2.64***	ND<1.0	ND<2.5	ND<1.0	**45.3**	**33.6**
	2 (DS2)	12/19/2016	ND<1.0	***2.15***	**68.3**	ND<1.3	ND<1.3	**9.11**	**5.33**	**9.76**	ND<2.5	ND<0.1	ND<2.5	**2.78**	ND<1.0	ND<2.5	ND<1.0	**46.7**	**36.3**
	RPD			**-2.3529**	**70.0903**			**-14.605**	**16.3652**	**-25.274**				**-5.1661**				**-3.0435**	**-7.7253**
F1	8	12/19/2016	ND<1.0	ND<1.0	**43.3**	ND<1.3	ND<1.3	***2.82***	**5.55**	ND<2.5	ND<2.5	ND<0.1	ND<2.5	ND<2.5	ND<1.0	ND<2.5	ND<1.0	**17.3**	**20.1**
	8 (DF1)	12/19/2016	ND<1.0	ND<1.0	**49**	ND<1.3	ND<1.3	***3.24***	**5.23**	ND<2.5	ND<2.5	ND<0.1	ND<2.5	ND<2.5	ND<1.0	ND<2.5	ND<1.0	**20.8**	**23.5**
	RPD				**-12.351**			**-13.861**	**5.93692**									**-18.373**	**-15.596**
F3	8	12/19/2016	ND<1.0	1	**68.2**	ND<1.3	ND<1.3	**6.35**	**5.27**	**7.34**	ND<2.5	ND<0.1	ND<2.5	2.5	ND<1.0	ND<2.5	ND<1.0	**36.5**	**28.2**
	8 (DF3)	12/19/2016	ND<1.0	***3.82***	**95.7**	ND<1.3	ND<1.3	**11.4**	**6.77**	**12.4**	ND<2.5	ND<0.1	ND<2.5	***4.52***	ND<1.0	ND<2.5	ND<1.0	**44.6**	**40.2**
	RPD			**-117.01**	**-33.557**			**-56.901**	**-24.917**	**-51.266**				**-57.55**				**-19.975**	**-35.088**

OCPS micrograms per kilogram				Chlordane	DDE
LC1	L1, L2, L3, L4	12/20/2016	1.5	ND	***1.32***
DLC-1	DL1, DL2, DL3, DL4	12/20/2016	1.5	ND	**2.59**
					-64.962

Highlighting = Method detection limit substituted for ND values

bgs = Below ground surface
RPD = Relative Percent Difference
ND = Not detected above the method detection limit

Table 8
Risk Hazard Summary
Proposed School Site
Meadowood, Fallbrook, CA

Compound	Maximum Concentration	Units	Screening Levels		Risk	Hazard
			Carcinogenic	Non Carcinogenic		
Chlordane	1.32	µg/kg	440	35,000	3.00E-09	3.77143E-05
DDE	13	µg/kg	2,000	--	6.50E-09	--
TPHo	52.2	mg/kg	--	2,530	--	0.0206
Barium	142	mg/kg	--	15,000	--	0.00947
chromium	15.1	mg/kg	--	36,000	--	0.000419
cobalt	11.1	mg/kg	424	23.4	2.62E-08	0.474
copper	16.7	mg/kg	--	3130	--	0.00534
nickel	5.07	mg/kg	15,000	490	3.38E-10	0.0103
vanadium	67.63	mg/kg	--	390	--	0.173
zinc	50.4	mg/kg	--	23,500	--	0.00214
Total					**3.60E-08**	**0.696**

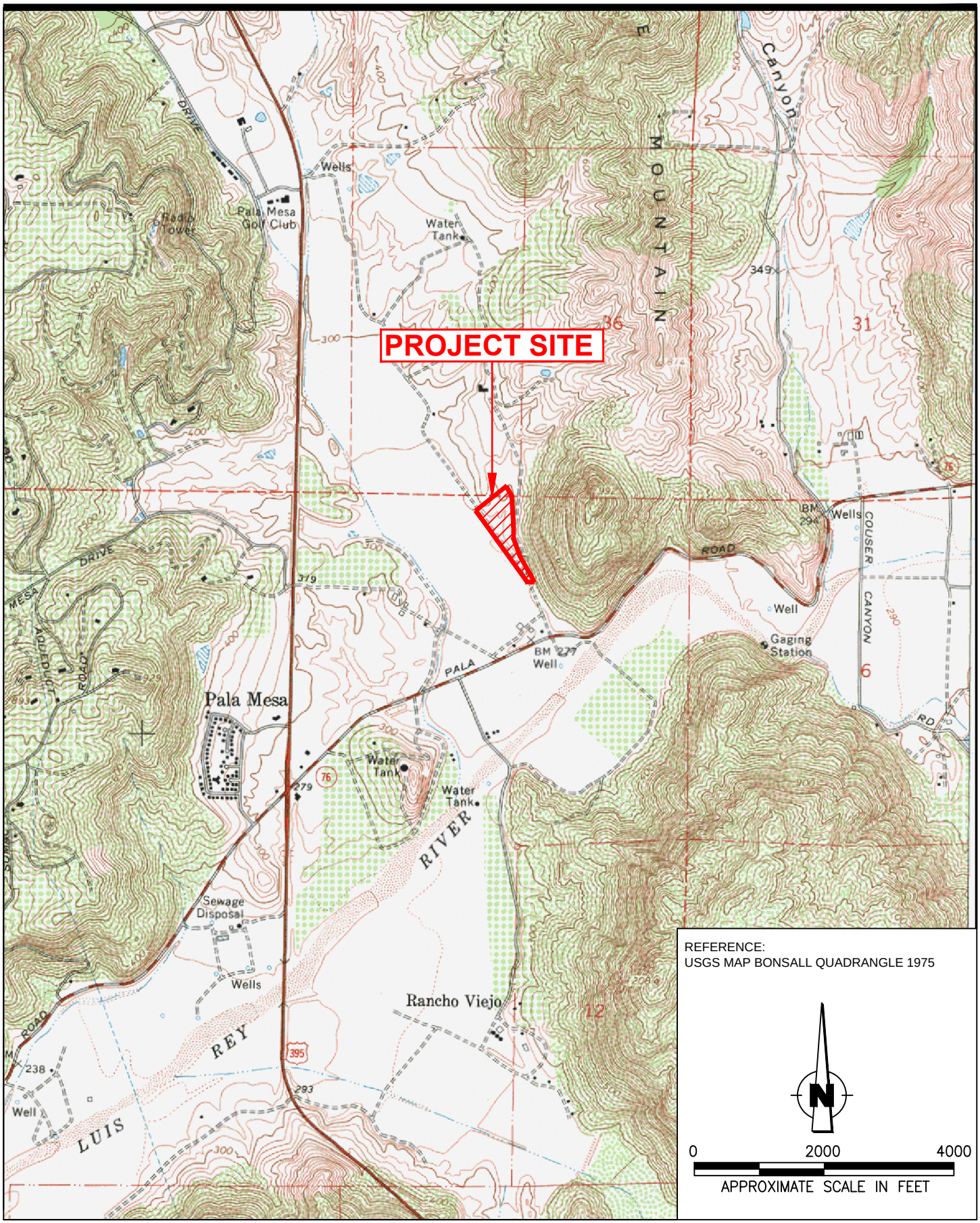
Screening levels based upon HHRA Note #3 and EPA RSLs (HQ=1)

µg/kg = micrograms per kilogram
mg/kg = milligrams per kilogram

Figures

Figures

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SITE LOCATION MAP

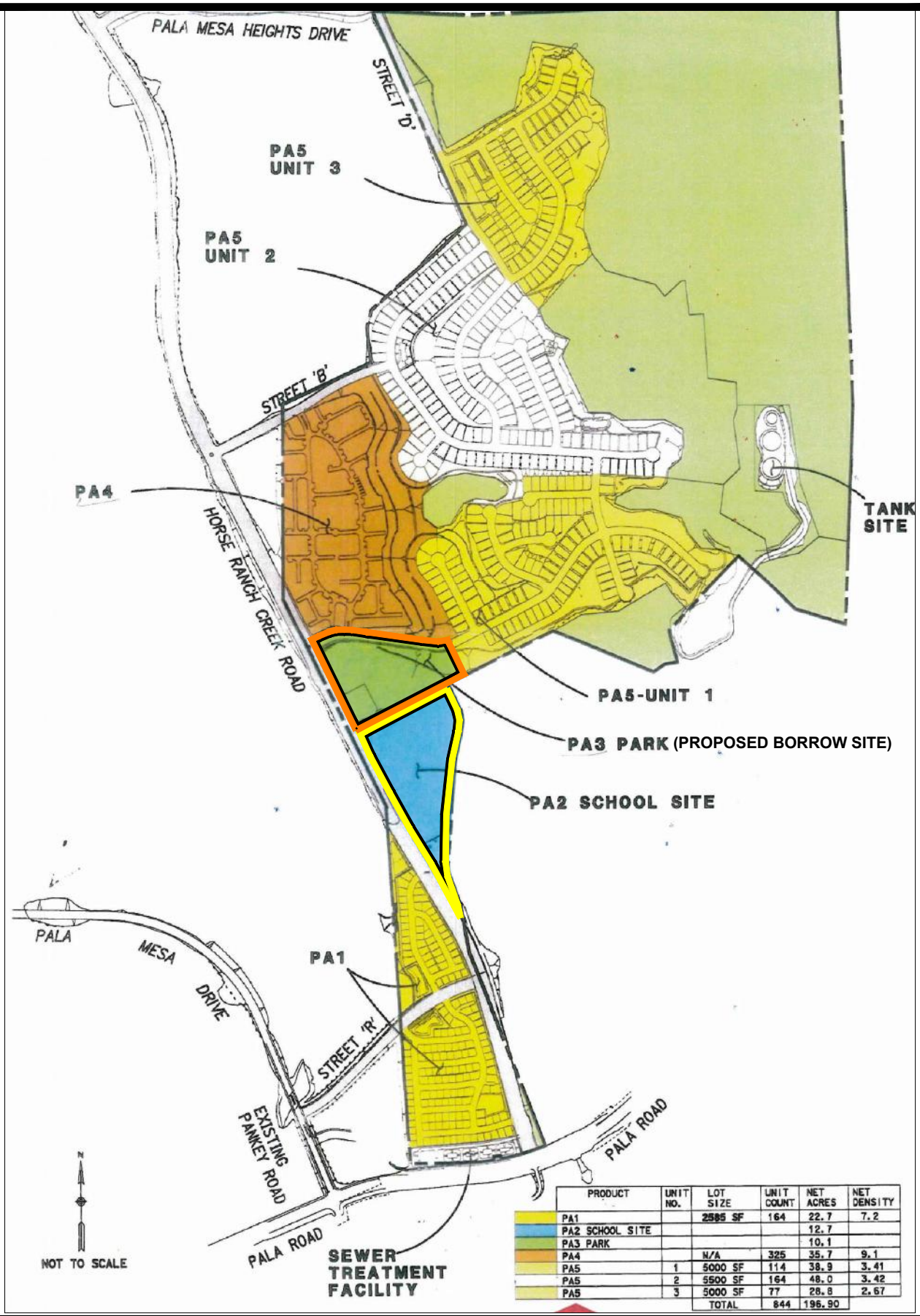
Converse Consultants

PARDEE HOMES
MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Project No.
02-41-220-05

Figure No.
1

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PRODUCT	UNIT NO.	LOT SIZE	UNIT COUNT	NET ACRES	NET DENSITY
PA1		2585 SF	164	22.7	7.2
PA2 SCHOOL SITE				12.7	
PA3 PARK				10.1	
PA4		N/A	325	35.7	9.1
PA5	1	5000 SF	114	38.9	3.41
PA5	2	5500 SF	164	48.0	3.42
PA5	3	5000 SF	77	28.8	2.67
		TOTAL	844	196.90	

GENERAL DEVELOPMENT PLAN

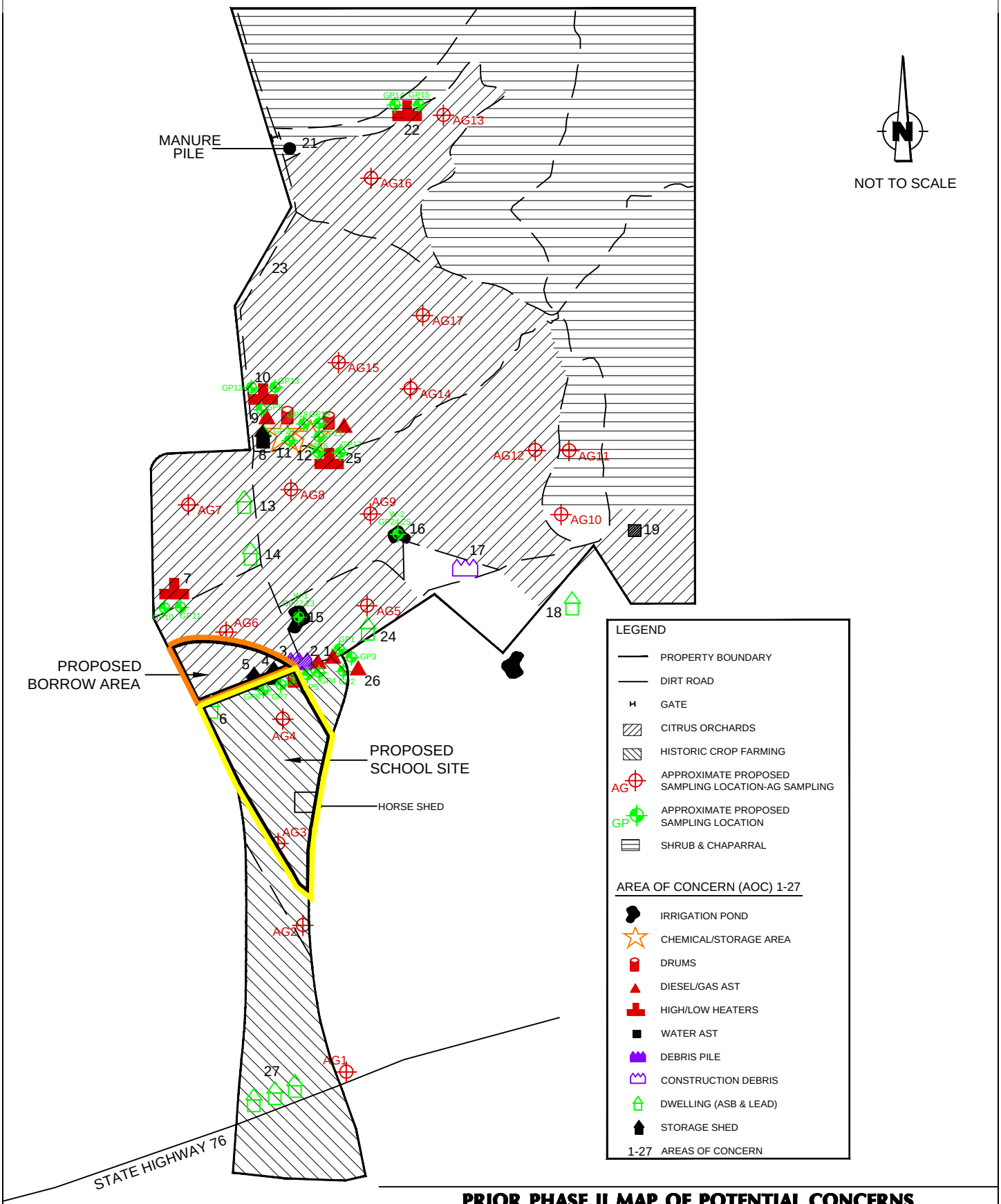
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MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Project No. 02-41-220-05

Figure No. 2

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PRIOR PHASE II MAP OF POTENTIAL CONCERNS

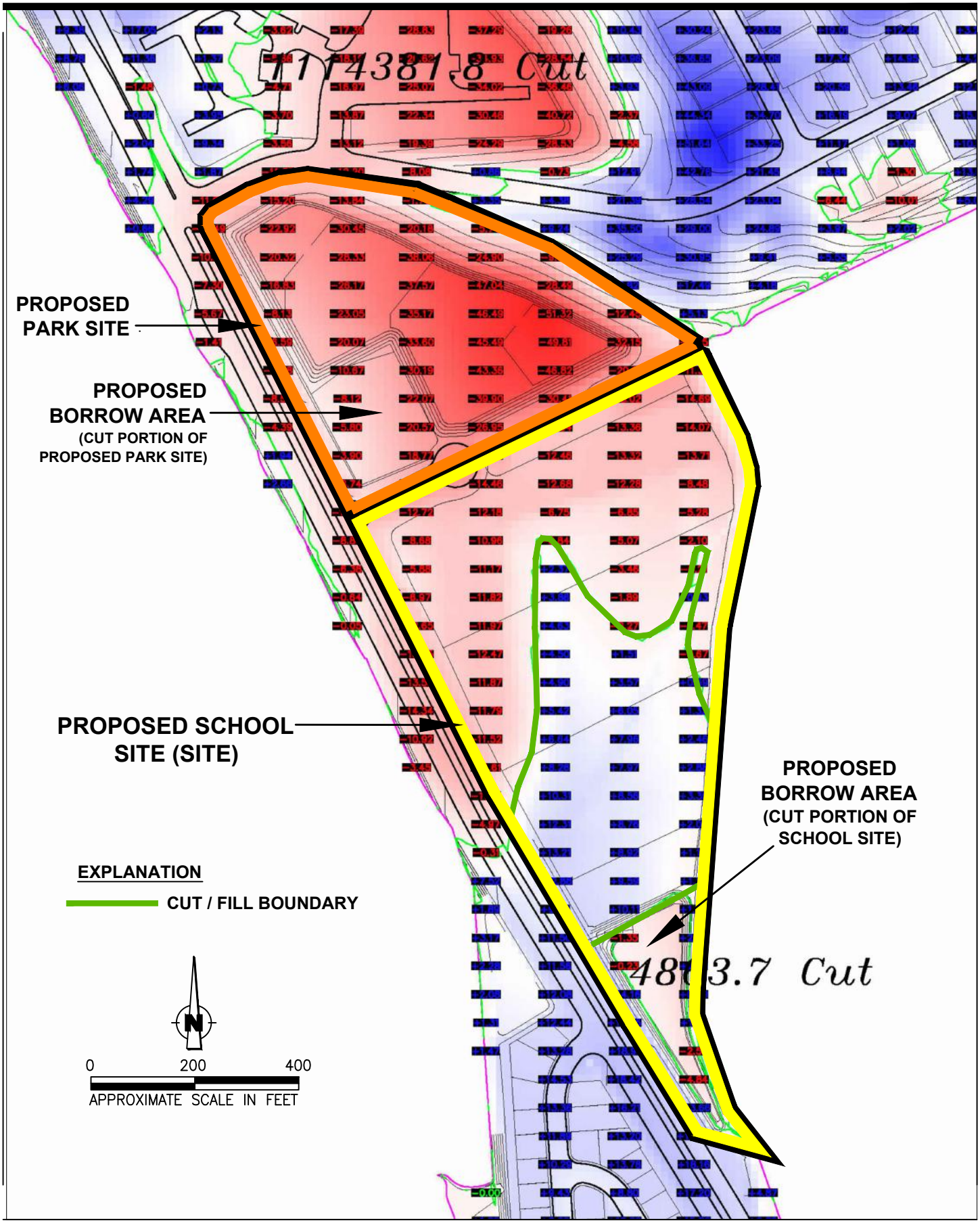
PARDEE HOMES
MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Converse Consultants

Project No.
02-41-220-05

Figure No.
3

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APPROXIMATE CUT / FILL MAP

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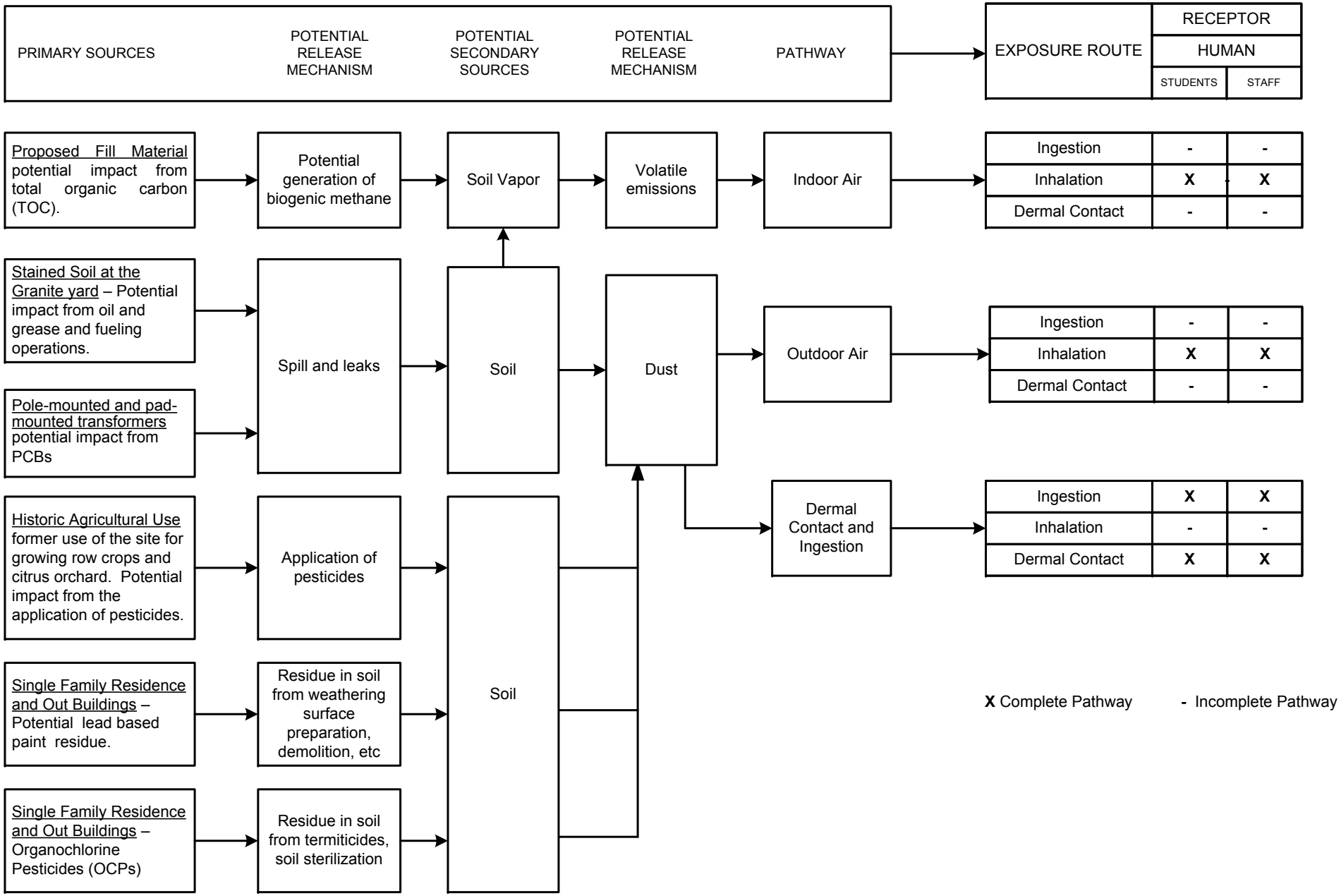
PARDEE HOMES
MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

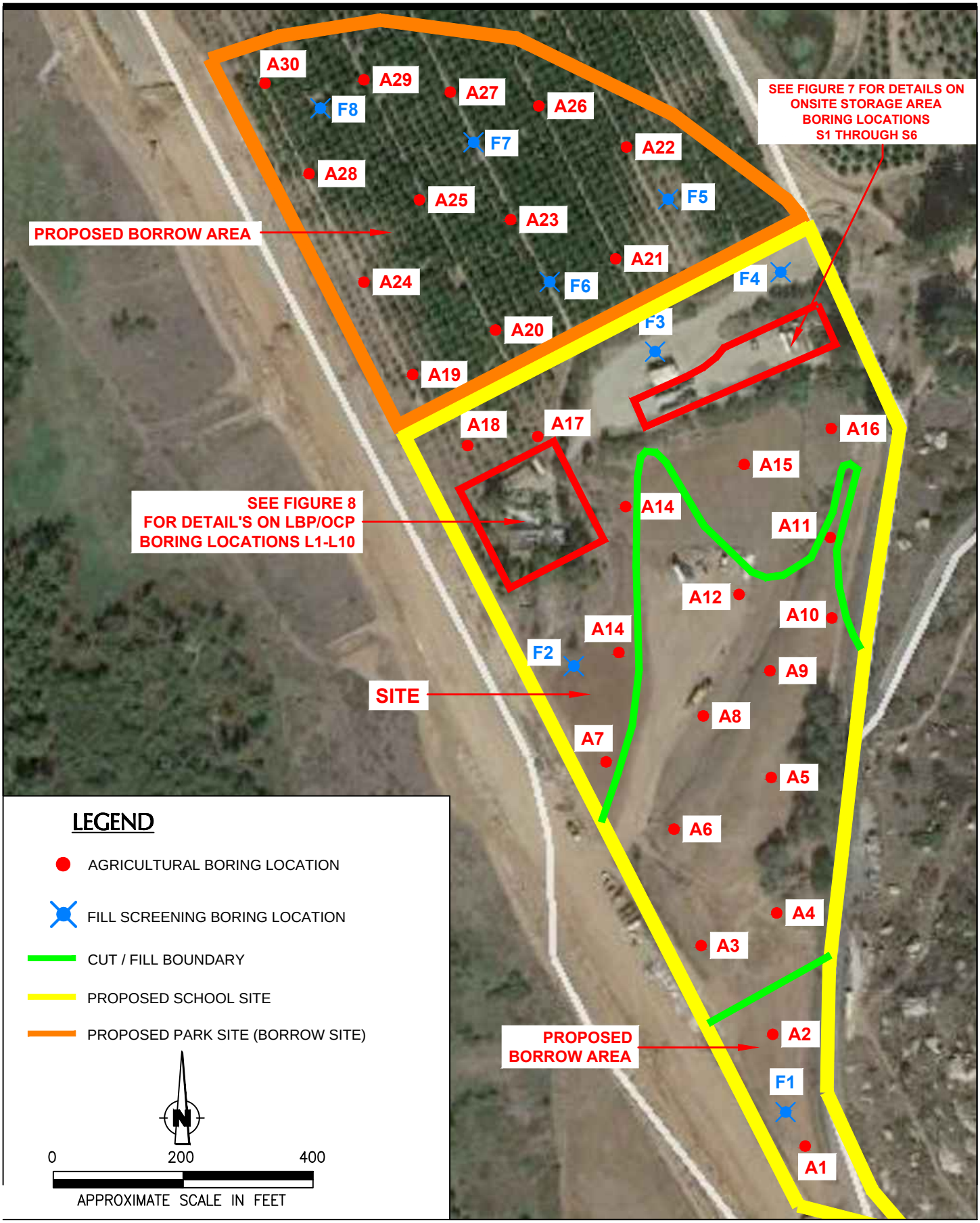
Project No. 02-41-220-05

Figure No. 4

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FIGURE 5 CONCEPTUAL SITE MODEL
Meadowood - Proposed School Site





BORING LOCATION MAP - FILL AND AGRICULTURAL SAMPLES

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PARDEE HOMES
MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Project No. 02-41-220-05

Figure No. 6

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LEGEND

BORING SAMPLE LOCATION

N

0 40 80

APPROXIMATE SCALE IN FEET

BORING LOCATION MAP - GRANITE CONSTRUCTION STORAGE YARD

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MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Project No. 12-41-220-05

Figure No. 7

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BORING LOCATION MAP - LBP/OCP SAMPLES

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PARDEE HOMES
MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Project No. 02-41-220-05

Figure No. 8

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Appendix A
Photographs

Appendix A

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School Site – From the north



School Site

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School Site – From the south



Borrow Area – proposed park site

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South end of school site – proposed borrow area



Residence at northeast corner of the school site

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Outbuilding at residence at northeast corner of the school site

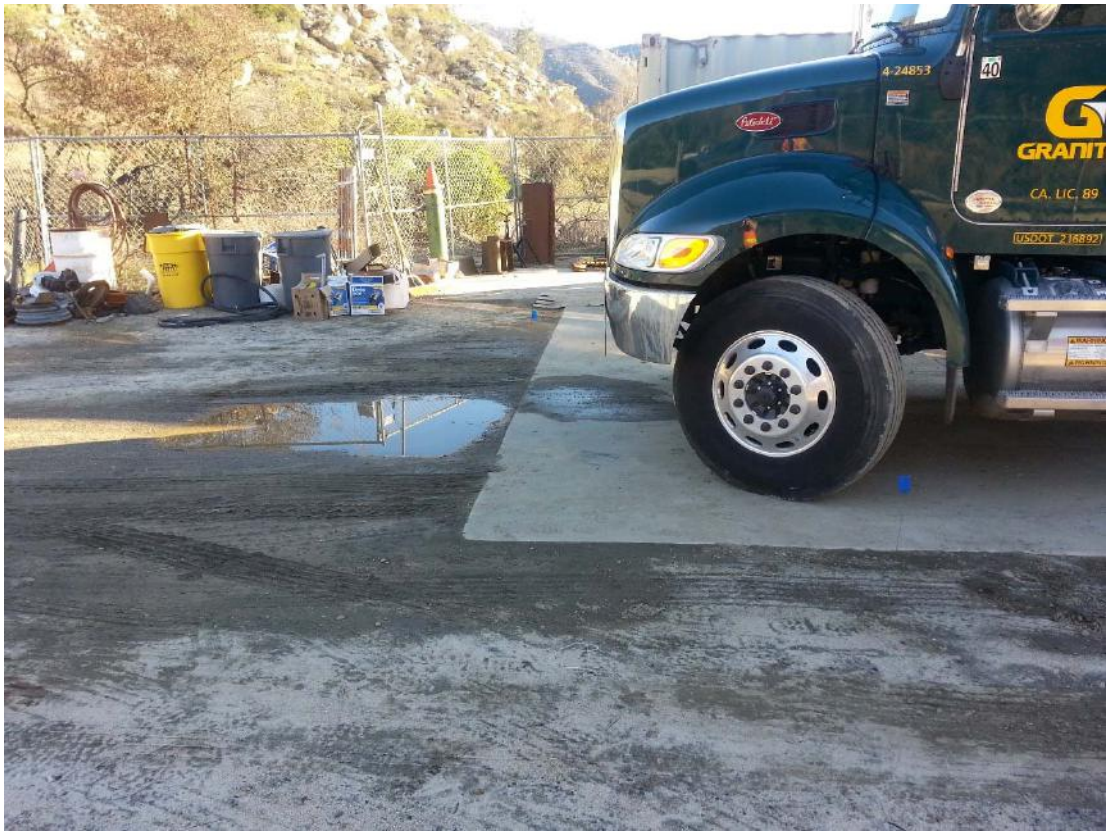


Granite Storage Yard

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Fueling area at Granite storage yard (Samples S1, S2)



Fueling area at Granite Storage yard (Sample S3)

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Stained Soil at Granite Storage Yard (samples S4, S5)



Storage at east end of Granite Storage Yard (sample S6)

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Pole Mounted Transformer - Borrow area



Sample at pole mounted transformer in borrow area

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Appendix B
Tables A, B and C

Appendix B

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Table A
Summary Analytical Results for Pesticides and Herbicides
Proposed School Site
Pardee Homes Meadowood Development

Sample ID	Sample Depth (feet bgs)	Area of Concern (AOC)	Sample Date	Units	Aldrin	alpha-BHC	beta-BHC	delta-BHC	gama-BHC (Lindane)	Chlordane (Technical)	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin aldehyde	Heptachlor	Heptachlor epoxide	Methoxychlor	Toxaphene	Organophosphorus Pesticides	Chlorinated Herbicides
AG3	0.5	--	7/2/2002	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	3	--	7/2/2002	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AG4	0.5	--	7/2/2002	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	3	--	7/2/2002	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
GP5	0.5	AOC 3	7/2/2002	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	3		7/2/2002	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
GP6	0.5		7/2/2002	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	3		7/2/2002	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
GP7	0.5	AOC 5	7/2/2002	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	3		7/2/2002	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
GP8	0.5	AOC 4	7/2/2002	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	3		7/2/2002	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Guidance Levels	CHHSL-r	mg/kg	0.033	--	--	--	0.5	0.43	2.3	1.6	1.6	0.035	--	--	--	0.21	--	0.013	--	340.0	0.46
	CHHSL-i	mg/kg	0.13	--	--	--	2	1.70	9.0	6.3	6.3	0.13	--	--	--	230	--	0.052	--	3800	1.8
	PRG-r	mg/kg	0.029	--	--	--	--	1.6	2.4	2	1.7	0.03	370	--	--	18	--	0.11	0.053	310	0.44
	PRG-i	mg/kg	0.1	--	--	--	--	6.5	10	7	7	0.1	3700	--	--	180	--	0.38	0.19	3100	1.6
Regulatory Levels	TTLC	mg/kg	1.4	--	--	--	4	3	1			8	--	--	--	0.2	--	4.7	--	21	5
	STLC	mg/L	0.14	--	--	--	0.4	0.25	0.1			0.8	--	--	--	0.02	--	0.47	--	2.1	0.5
	TCLP	mg/L	--	--	--	--	0.4	0.03	0.1			0	--	--	--	0.02	--	0.008	0.008	10	1

Samples analyzed in accordance with EPA Method 8081
mg/kg = Milligrams per Kilogram
mg/L = Milligrams per Liter
ND = Not Detected at or above Practical Quantification Limits (PQLs)
- = Sample Not Analyzed
bgs = below ground surface

PRG-r = Preliminary Remdediation Goals for R
PRG-i = Preliminary Remdediation Goals for In
CHHSL-r = California Human Health Screening
CHHSL-i = California Human Health Screening
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
TCLP = Toxicity Characteristic Leaching Procedure

TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
TCLP = Toxicity Characteristic Leaching Procedure
bgs = Below ground surface

Table B
Summary Analytical Results for Total Petroleum Hydrocarbons
Proposed School Site
Pardee Homes Meadowood Development

Sample ID	Sample Depth (feet bgs)	Area of Concern (AOC)	Sample Date	Units	TPH Gasoline Range C8-C11	TPH Diesel Range C12-C22	TPH Oil Range C23-C32	Total TPH C8-C132
GP5	**0.5**	**AOC 3**	7/2/2002	mg/kg	ND	ND	ND	ND
	5		7/2/2002	mg/kg	ND	ND	ND	ND
GP6	**0.5**		7/2/2002	mg/kg	ND	ND	ND	ND
	5		7/2/2002	mg/kg	ND	ND	ND	ND
GP7	**0.5**	**AOC 5**	7/2/2002	mg/kg	ND	ND	ND	ND
	5		7/2/2002	mg/kg	ND	ND	ND	ND
GP8	**0.5**	**AOC 4**	7/2/2002	mg/kg	ND	ND	ND	ND
	5		7/2/2002	mg/kg	**1.1**	**3.2**	**8.6**	**14.5**
	10.0		7/2/2002	mg/kg	ND	ND	ND	ND
AG3	**0.5**	**--**	7/2/2002	mg/kg	ND	ND	ND	ND
	3	**--**	7/2/2002	mg/kg	ND	ND	ND	ND
AG4	**0.5**	**--**	7/2/2002	mg/kg	ND	ND	ND	ND
	3	**--**	7/2/2002	mg/kg	ND	ND	ND	ND

	Distance Above Groundwater	(C4-C12)	(C13-C22)	(C23-C32)	(C4-C32)
Maximum Soil Screening Levels	< 20 feet	100	100	1,000	--
	20 - 150 feet	500	1,000	10,000	--
	> 150 feet	1,000	10,000	50,000	--

Samples analyzed in accordance with EPA Method 8015
bgs = Below ground surface
mg/kg = Milligrams per Kilogram
TPH = Total Petroleum Hydrocarbons
ND = Not Detected at or above Practical Quantification Limits (PQLs)
-- = Not Applicable

Table C
Summary Analytical Results for Metal Constituents
Proposed School Site
Pardee Homes Meadowood Development

Sample ID	Sample Depth (feet bgs)	Area of Concern (AOC)	Sample Date	Units	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
GP5	0.5	AOC 3	7/2/2002	mg/kg	ND	2.8	96	ND	ND	15	5.9	13	2.6	ND	ND	5.0	1	ND	ND	61	35
	5		7/2/2002	mg/kg	ND	2.5	130	ND	ND	11	5.9	14	ND	ND	ND	4.9	1	ND	ND	65	40
GP6	0.5	AOC 3	7/2/2002	mg/kg	ND	2	130	ND	ND	11	6.1	13	ND	ND	ND	4.5	1	ND	ND	64	39
	5		7/2/2002	mg/kg	ND	2	83	ND	ND	8.5	4.8	7.7	ND	ND	ND	3.3	1	ND	ND	53	42
GP7	0.5	AOC 4	7/2/2002	mg/kg	ND	1	96	ND	ND	13	5.8	24	ND	ND	ND	6.2	0.9	ND	ND	48	27
	5		7/2/2002	mg/kg	ND	2	120	ND	ND	8.1	4.8	9	ND	ND	ND	4.8	1	ND	ND	55	40
GP8	0.5	AOC 5	7/2/2002	mg/kg	ND	2.7	120	ND	ND	8.4	5.6	10	ND	ND	ND	4.1	1	ND	ND	60	47
	5		7/2/2002	mg/kg	ND	3	160	ND	ND	8.8	7.2	10	ND	ND	ND	ND	2	ND	ND	75	57
Guidance Levels			CHHSL-r	mg/kg	30	0.07	5,200	150	1.7	100,000	660	3,000	150	18	380	1,600	380	380	5	530	23,000
			CHHSL-i	mg/kg	380	0.24	63,000	1700	7.5	100,000	3200	38,000	3500	180	4800	16,000	4800	4800	63	6700	100,000
			PRG-r	mg/kg	31	0.062	5,400	150	37	210	900	3,100	150	23	390	1,600	390	390	5.2	78	23,000
			PRG-i	mg/kg	410	0.25	67,000	1900	450	450	1900	41,000	800	310	5100	20,000	5100	5100	67	1000	100,000
Regulatory Levels			TTLC	mg/kg	500	500	10,000	75	100	2,500	8,000	2,500	1,000	20	3,500	2,000	100	500	700	2,400	5,000
			STLC	mg/L	15	5	100	0.75	1	5	80	25	5	0.2	350	20	1	5	7	24	250
			TCLP	mg/L	--	5	100	--	1	5	--	--	5	0	--	--	1	5	--	--	--

Samples analyzed in accordance with EPA Method 6010
mg/kg = Milligrams per Kilogram
mg/L = Milligrams per Liter
ND = Not Detected at or above Practical Quantification Limits (PQLs)
- = Sample Not Analyzed

PRG-r = Preliminary Remediation Goals for Residential Soils
PRG-i = Preliminary Remediation Goals for Industrial Soils
CHHSL-r = California Human Health Screening Levels for Residential Soils
CHHSL-i = California Human Health Screening Levels for Industriall Soils

TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
TCLP = Toxicity Characteristic Leaching Procedure
bgs = Below ground surface

Appendix C
Soil Boring Logs

Appendix C

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Log of Boring No. F1

Dates Drilled: 12/19/2016 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	PID (PPM)	OTHER
		SILT (ML): brown, dry, loose, minor very fine grained sand.	X		0.0	
			X		0.0	
5						
			X		0.0	
10						
		SANDY SILT (ML): brown, very fine grained sand, dry, loose.	X		0.0	
		Total depth = 12 feet. No groundwater encountered during drilling.				

Converse Consultants

Project Name
PARDEE HOMES
MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Project No. **02-41-220-05**

Drawing No. **F1**

Log of Boring No. F2

Dates Drilled: 12/19/2016 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	PID (PPM)	OTHER
		SILT (ML): light brown, slightly cemented, dry, minor very fine grained sand.	X		0.0	
		SANDY SILT (ML): light brown, very fine to fine grained, loose, dry.	X		0.0	
5						
			X		0.0	
10						
		-brown, trace clay	X		0.0	
		Total depth = 12 feet. No groundwater encountered during drilling.				

Converse Consultants

Project Name
PARDEE HOMES
MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Project No. **02-41-220-05**

Drawing No. **F2**

Log of Boring No. F3

Dates Drilled: 12/19/2016 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	PID (PPM)	OTHER
		SILT (ML): reddish brown, dry, loose, minor very fine grained sand.	X		0.0	
			X		0.0	
5						
		-trace clay	X		0.0	
10						
		-no clay	X		0.0	
		Total depth = 12 feet. No groundwater encountered during drilling.				

Converse Consultants

Project Name
PARDEE HOMES
MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Project No. **02-41-220-05**

Drawing No. **F3**

Log of Boring No. F4

Dates Drilled: 12/19/2016 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	PID (PPM)	OTHER
		SILT (ML): reddish brown, dry, loose, minor very fine grained sand.	X		0.0	
		-light brown	X		0.0	
5						
		-reddish brown	X		0.0	
10						
		SAND (SP): tan, very fine, dry, well sorted.	X		0.0	
		Total depth = 12 feet. No groundwater encountered during drilling.				

Converse Consultants

Project Name
PARDEE HOMES
MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Project No. **02-41-220-05**

Drawing No. **F4**

Log of Boring No. F5

Dates Drilled: 12/19/2016 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	PID (PPM)	OTHER
		CLAYEY SILT (ML): brown, slightly moist, soft, minor very fine grained sand.	X		0.0	
			X		0.0	
5						
			X		0.0	
10						
			X		0.0	
		Total depth = 12 feet. No groundwater encountered during drilling.				

Converse Consultants

Project Name
PARDEE HOMES
MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Project No. **02-41-220-05**

Drawing No. **F5**

Log of Boring No. F6

Dates Drilled: 12/19/2016 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	PID (PPM)	OTHER
		SILT (ML): dark brown, moist, soft to loose, trace clay and very fine grained sand.	X		0.0	
			X		0.0	
5		**CLAYEY SILT (ML):** brown, slightly moist, slightly stiff, minor very grained sand.				
			X		0.0	
10						
			X		0.0	
		Total depth = 12 feet. No groundwater encountered during drilling.				

Converse Consultants

Project Name
PARDEE HOMES
MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Project No. **02-41-220-05**

Drawing No. **F6**

Log of Boring No. F7

Dates Drilled: 12/19/2016 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	PID (PPM)	OTHER
		SILT (ML): dark brown, moist, soft to loose, trace clay and very fine grained sand.	☒		0.0	
			☒		0.0	
5		**CLAYEY SILT (ML):** brown, slightly moist, slightly stiff, minor very grained sand.				
			☒		0.0	
10						
			☒		0.0	
		Total depth = 12 feet. No groundwater encountered during drilling.				

Converse Consultants

Project Name
PARDEE HOMES
MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Project No. **02-41-220-05**

Drawing No. **F7**

Log of Boring No. F8

Dates Drilled: 12/19/2016 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	PID (PPM)	OTHER
		CLAYEY SILT (ML): brown, dry, very stiff, some very fine to fine grained sand.	X		0.0	
			X		0.0	
5						
		-sightly moist, moderatey stiff	X		0.0	
10						
		-increased sand, soft to loose	X		0.0	
		Total depth = 12 feet. No groundwater encountered during drilling.				

Converse Consultants

Project Name
PARDEE HOMES
MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Project No. **02-41-220-05**

Drawing No. **F8**

Log of Boring No. S1

Dates Drilled: 12/19/2016 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	PID (PPM)	OTHER
5		**SANDY SILT (ML):** reddish brown, very fine to fine grained sand, loose, slightly moist.	X		0.0	
			X		0.0	
			X		0.0	
			X		0.0	
		Total depth = 8 feet. No groundwater encountered during drilling.				

Converse Consultants

Project Name
PARDEE HOMES
MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Project No. **02-41-220-05**

Drawing No. **S1**

Log of Boring No. S2

Dates Drilled: 12/19/2016 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	PID (PPM)	OTHER
5		**SANDY SILT (ML):** reddish brown, very fine to fine grained sand, loose, slightly moist.	X		0.0	
			X		0.0	
			X		0.0	
			X		0.0	
		Total depth = 8 feet. No groundwater encountered during drilling.				

Converse Consultants

Project Name
PARDEE HOMES
MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Project No. **02-41-220-05**

Drawing No. **S2**

Log of Boring No. S3

Dates Drilled: 12/19/2016 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	PID (PPM)	OTHER
5		**SANDY SILT (ML):** reddish brown, very fine to fine grained sand, loose, slightly moist.	X		0.0	
			X		0.0	
			X		0.0	
			X		0.0	
		Total depth = 8 feet. No groundwater encountered during drilling.				

Converse Consultants

Project Name
PARDEE HOMES
MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Project No. **02-41-220-05**

Drawing No. **S3**

Log of Boring No. S4

Dates Drilled: 12/19/2016 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	PID (PPM)	OTHER
		SANDY SILT (ML): brown, very fine to fine grained sand, loose, slightly moist.	X		0.0	
		-trace clay	X		0.0	
5		-dark brown, no clay	X		0.0	
			X		0.0	
		Total depth = 8 feet. No groundwater encountered during drilling.				

Converse Consultants

Project Name
PARDEE HOMES
MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Project No. **02-41-220-05**

Drawing No. **S4**

Log of Boring No. S5

Dates Drilled: 12/19/2016 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	PID (PPM)	OTHER
		SANDY SILT (ML): brown, very fine to fine grained sand, loose, slightly moist.	X		0.0	
		-trace clay	X		0.0	
5		-dark brown, no clay	X		0.0	
			X		0.0	
		Total depth = 8 feet. No groundwater encountered during drilling.				

Converse Consultants

Project Name
PARDEE HOMES
MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Project No. **02-41-220-05**

Drawing No. **S5**

Log of Boring No. S6

Dates Drilled: 12/19/2016 Logged by: MVF Checked By: MVF

Equipment: GEOPROBE Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES DRIVE	SAMPLES BULK	PID (PPM)	OTHER
		SANDY SILT (ML): brown, very fine to fine grained sand, loose, slightly moist.	X		0.0	
		-trace clay	X		0.0	
5		-dark brown, no clay	X		0.0	
			X		0.0	
		Total depth = 8 feet. No groundwater encountered during drilling.				

Converse Consultants

Project Name
PARDEE HOMES
MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Project No. **02-41-220-05**

Drawing No. **S6**

Appendix D
Sampling Rationale

Appendix D

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Table 1
Proposed Agricultural Sampling
Proposed School Site
Pardee Homes Meadowood Development

Site Location	Boring Location	Sample Depth (feet bgs)*	Analysis		Composite Sample ID	Analysis			
			Arsenic	PCBs		OCPs	TPH	PAHs	TOC
Proposed School Site	A1	1.5	1	-	AC-1	1	1	-	1
	A2	1.5	-	-					
	A3	1.5	-	-					
	A4	1.5	-	-					
	A5	1.5	1	-	AC-2	1	1	-	1
	A6	1.5	-	-					
	A7	1.5	-	-					
	A8	1.5	-	-					
	A9	1.5	1	-	AC-3	1	1	-	1
	A10	1.5	-	-					
	A11	1.5	-	-					
	A12	1.5	-	-					
	A13	1.5	1	-	AC-4	1	1	-	1
	A14	1.5	-	-					
	A15	1.5	-	-					
	A16	1.5	-	-					
	A17	1.5	1	-	AC-5	1	1	1	1
	A18	1.5	-	-					
Proposed Borrow Area	A19	1.5	1	AN	AC-6	1	1	1	1
	A20	1.5	-	AN					
	A21	1.5	-	AN					
	A22	1.5	-	AN					
	A23	1.5	1	AN	AC-7	1	1	1	1
	A24	1.5	-	AN					
	A25	1.5	-	AN					
	A26	1.5	-	AN					
	A27	1.5	1	AN	AC-8	1	1	1	1
	A28	1.5	-	AN					
	A29	1.5	-	AN					
	A30	1.5	-	AN					

* = Soil samples to be continuously collected in 0.5-foot intervals between 1 and 4 feet, with the listed Sample Depth representative of the bottom of the sample interval. Collected samples not represented on the table will be archived by the laboratory.

bgs = below ground surface
AN = Samples will be analyzed as necessary if located beneath a pole-mounted transformer
PCBs = Polychlorinated Biphenyls
OCPs = Organochlorine Pesticides
TPH = Total Petroleum Hydrocarbons
PAH = Polynuclear Aromatic Hydrocarbons
TOC = Total Organic Carbon

Table 2
Proposed Lead Based Paint and Termiticide Sampling
Proposed School Site
Pardee Homes Meadowood Development

Site Location	Boring Location	Sample Depth (feet bgs)*	Analysis	Composite Sample ID	Analysis
			Lead		OCPs
Residential Structure	L1	1.5	1	LC-1	1
	L2	1.5	1		
	L3	1.5	1		
	L4	1.5	1		
Garage 1	L5	1.5	1	LC-2	1
	L6	1.5	1		
	L7	1.5	1		
Garage 2	L8	1.5	1	LC-3	1
	L9	1.5	1		
	L10	1.5	1		

* = Soil samples to be continously collected in 0.5-foot intervals between 1 and 4 feet, with the listed Sample Depth representative of the bottom of the sample interval. Collected samples not represented on the table will be archived by the laboratory.

bgs = below ground surface

OCPs = Organochlorine Pesticides

Table 3
Proposed Fill Sampling
Proposed School Site
Pardee Homes Meadowood Development

Site Location	Boring Location	Sample Depth (feet bgs)	Analysis		
			Metals	OCPs	TOC
Cut Area of Proposed School Site	F1	2	1	-	-
		4	-	-	1
		8	1	-	1
		12	-	-	1
	F2	2	1	-	-
		4	-	-	1
		8	1	-	1
		12	-	-	1
	F3	2	1	-	-
		4	-	-	1
		8	1	-	1
		12	-	-	1
	F4	2	1	-	-
		4	-	-	1
		8	1	-	1
		12	-	-	1
Proposed Borrow Area	F5	2	1	-	-
		4	-	-	1
		8	1	-	1
		12	-	-	1
	F6	2	1	-	-
		4	-	-	1
		8	1	-	1
		12	-	-	1
	F7	2	1	-	-
		4	-	-	1
		8	1		1
		12	-		1
	F8	2	1	-	-
		4	-	-	1
		8	1	-	1
		12	-	-	1

bgs = below ground surface
OCPs = Organochlorine Pesticides
TOC = Total Organic Carbon

Table 4
Potential Borings in Areas of Stained Onsite Soil
Proposed School Site
Pardee Homes Meadowood Development

Site Location	Boring Location	Sample Depth (feet bgs)	Analysis		
			Metals	TPH	VOCs
Onsite Storage Area in Northeastern Portion of Proposed School Site	S1	2	1	1	1
		4	1	1	1
		6	-	-	-
		8	-	-	-
	S2	2	1	1	1
		4	1	1	1
		6	-	-	-
		8	-	-	-
	S3	2	1	1	1
		4	1	1	1
		6	-	-	-
		8	-	-	-
	S4	2	1	1	1
		4	1	1	1
		6	-	-	-
		8	-	-	-
	S5	2	1	1	1
		4	1	1	1
		6	-	-	-
		8	-	-	-
	S6	2	1	1	1
		4	1	1	1
		6	-	-	-
		8	-	-	-
	S7	2	1	1	1
		4	1	1	1
		6	-	-	-
		8	-	-	-
	S8	2	1	1	1
		4	1	1	1
		6	-	-	-
		8	-	-	-
	S9	2	1	1	1
		4	1	1	1
		6	-	-	-
		8	-	-	-
	S10	2	1	1	1
		4	1	1	1
		6	-	-	-
		8	-	-	-

bgs = below ground surface
TPH = Total Petroleum Hydrocarbons
VOCs = Volatile Organic Compounds

Appendix E
Laboratory Analytical Results

Appendix E

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American Environmental Testing Laboratory Inc.
2834 & 2908 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Ordered By

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016-

Telephone: (626)930-1200
Attention: Michael Van Fleet

Number of Pages	**12**
Date Received	**12/20/2016**
Date Reported	**01/09/2017**

Job Number	Order Date	Client
85891	12/20/2016	CONVRS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

Enclosed please find results of analyses of 8 soil samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Attachment: 13 pages

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.
2834 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840

CHAIN OF CUSTODY RECORD

COMPANY: Converse Consultants
PHONE: (626) 930-1200
PROJECT MANAGER: Michael Van Fleet
FAX: (626) 930-1212
PROJECT NAME: Pardee - Meadowood
PROJECT #: 02-41-220-05
SITE NAME AND ADDRESS:

AETL JOB No. 85891

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	Arsenic - 6010	PCBs - 8082	OCPs - 8081	TOC - 9060	TPH - 8015	PAHs - 8310	Lead - 6010	Metals - 6010/7471	VOCs - 8260	TEST INSTRUCTIONS & COMMENTS
1	A1-1.5	85891.01	12-19-16	8:50	Soil	1 sleeve	Ice	X									
2	A2-1.5	85891.02		9:26													
3	A3-1.5	85891.03		10:00													
4	A4-1.5	85891.04		9:46													Prepare Composite Sample
5	AC-1-1.5	85891.05		—		—				X	X	X					AC-1-1.5 from discrete samples
6	A5-1.5	85891.06		10:16		1 sleeve		X									A1-1.5, A2-1.5, A3-1.5, A4-1.5
7	A6-1.5	85891.07		10:31													
8	A7-1.5	85891.08		10:46													
9	A8-1.5	85891.09		11:11													Prep Comp. Sample AC-2-1.5
10	AC-2-1.5	85891.10		—		—				X	X	X					from discrete samples A5-1.5
11	A9-1.5	85891.11		11:31		1 sleeve		X									A6-1.5, A7-1.5, A8-1.5
12	A10-1.5	85891.12		11:41													
13	A11-1.5	85891.13		11:50													
14	A12-1.5	85891.14		14:15													Prep Comp Sample AC-3-1.5
15	AC-3-1.5	85891.15		—		—				X	X	X					from discrete samples A9-1.5
																	A10-1.5, A11-1.5, A12-1.5

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	12	PROPERLY COOLED (Y / N / NA)	
CUSTODY SEALS Y / (N) / NA		SAMPLES INTACT (Y) / N / NA	
RECEIVED IN GOOD COND. (Y) / N		SAMPLES ACCEPTED (Y) / N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ 24 HRS. ☐ 48 HRS. ☐ 72 HRS.

	1.	2.	3.
RELINQUISHED BY SAMPLER:	Signature:	Signature:	Signature:
	Printed Name: JULIA ZIEGLER	Printed Name:	Printed Name: Sayis P
	Date: 12/20/16 Time: 0915	Date: Time:	Date: 12-20-16 Time: 1030
RECEIVED BY:	Signature:	Signature:	RECEIVED BY LABORATORY: AETL
	Printed Name: Sayis P	Printed Name:	Signature:
	Date: 12-20-16 Time: 0915	Date: Time:	Printed Name: Antin
			Date: 12/20/16 Time: 1030

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

American Environmental Testing Laboratory Inc.

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Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840

CHAIN OF CUSTODY RECORD

COMPANY: Converse Consultants
PHONE: (626) 930-1200
PROJECT MANAGER: Michael Van Fleet
FAX: (626) 930-1212
PROJECT NAME: Pardee - Meadowood
PROJECT #: 02-41-220-05
SITE NAME AND ADDRESS:

AETL JOB No. 85891

SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	Arsenic - 6010	PCBs - 8082	OCPs - 8081	TOC - 9060	TPH - 8015	PAHs - 8310	Lead - 6010	Metals - 6010/7471	VOCs - 8260	TEST INSTRUCTIONS & COMMENTS
A13-1.5	85891.16	12-19-16	13:45	Soil	1 Sleeve	Ice	X									
A14-1.5	85891.17		13:55													
A15-1.5	85891.18		14:30													Prepare Composite Sample AC4-1.5 from Samples A13-1.5, A14-1.5, A15-1.5, A16-1.5
A16-1.5	85891.19		14:40													
AC4-1.5	85891.20		—		—				X	X	X					

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	4	PROPERLY COOLED (Y / N / NA)	
CUSTODY SEALS Y / (N) / NA		SAMPLES INTACT (Y) / N / NA	
RECEIVED IN GOOD COND. (Y) / N		SAMPLES ACCEPTED (Y) / N	

TURN AROUND TIME

(X) NORMAL ☐ RUSH ☐ SAME DAY ☐ 24 HRS. ☐ 48 HRS. ☐ 72 HRS.

	1.	2.	3.
RELINQUISHED BY SAMPLER:	Signature:	Signature:	Signature:
	Printed Name: JOHN ZIEGLER	Printed Name:	Printed Name: Javiyas P
	Date: 12-20-16 Time: 0915	Date: Time:	Date: 12-20-16 Time: 1032
RECEIVED BY:	Signature:	Signature:	RECEIVED BY LABORATORY: AETL
	Printed Name: Javiyas P	Printed Name:	Signature:
	Date: 12-20-16 Time: 0915	Date: Time:	Printed Name: Antin
			Date: 12/20/16 Time: 1030

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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CHAIN OF CUSTODY RECORD

COMPANY: Converse Consultants	PHONE: (626) 930-1200
PROJECT MANAGER: Michael Van Fleet	FAX: (626) 930-1212
PROJECT NAME: Pardee - Meadowood	PROJECT #: 02-41-220-05
SITE NAME AND ADDRESS:	

AETL JOB No. 85891

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.
1	A1-2	85891.21	12-19-16	8:49	Soil	1 Sleeve	Ice
2	-2.5	85891.22		8:48			
3	-3	85891.23		8:47			
4	-3.5	85891.24		8:46			
5	-4	85891.25		8:45			
6	A2-2	85891.26		9:27			
7	-2.5	85891.27		9:28			
8	-3	85891.28		9:29			
9	-3.5	85891.29		9:30			
10	-4	85891.30		9:31			
11	A3-2	85891.31		10:01			
12	-2.5	85891.32		10:02			
13	-3	85891.33		10:03			
14	-3.5	85891.34		10:04			
15	-4	85891.35		10:05			

ANALYSIS REQUESTED

Arsenic - 6010	PCBs - 8082	OCPs - 8081	TOC - 9060	TPH - 8015	PAHs - 8310	Lead - 6010	Metals - 6010/7471	VOCs - 8260	Hold
									X
									X
									X
									X
									X
									X
									X
									X
									X
									X
									X
									X
									X
									X
									Y

TEST INSTRUCTIONS & COMMENTS

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	15	PROPERLY COOLED (Y / N / NA)	
CUSTODY SEALS Y / (N) / NA		SAMPLES INTACT (Y) / N / NA	
RECEIVED IN GOOD COND. (Y) / N		SAMPLES ACCEPTED (Y) / N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ 24 HRS. ☐ 48 HRS. ☐ 72 HRS.

	1.	2.	3.
RELINQUISHED BY SAMPLER:	Signature:	RELINQUISHED BY: Signature:	RELINQUISHED BY: Signature:
	Printed Name: JOHN ZIEGLER	Printed Name:	Printed Name: Dargis P
	Date: 12/20/16 Time: 0915	Date: Time:	Date: 12-20-16 Time: 1630
RECEIVED BY:	Signature:	RECEIVED BY: Signature:	RECEIVED BY LABORATORY: AETL Signature:
	Printed Name: Dargis P	Printed Name:	Printed Name: Artin
	Date: 12-20-16 Time: 0915	Date: Time:	Date: 12/20/16 Time: 1030

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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Monrovia, CA 91016-

Telephone: (626)930-1200
Attention: Michael Van Fleet

Project ID: 02-41-220-05
Date Received 12/20/2016
Date Reported 01/09/2017

Job Number	Order Date	Client
85891	12/20/2016	CONVRS

CERTIFICATE OF ANALYSIS
CASE NARRATIVE

AETL received 35 samples with the following specification on 12/20/2016.

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
85891.01	A1-1.5	12/19/2016	Soil	1
85891.06	A5-1.5	12/19/2016	Soil	1
85891.11	A9-1.5	12/19/2016	Soil	1
85891.16	A13-1.5	12/19/2016	Soil	1

Method ^ Submethod	*Req Date*	*Priority*	*TAT*	*Units*
(6010BSCAN) ^ AS	12/27/2016	2	Normal	mg/Kg

85891.02	A2-1.5	12/19/2016	Soil	1
85891.03	A3-1.5	12/19/2016	Soil	1
85891.04	A4-1.5	12/19/2016	Soil	1
85891.07	A6-1.5	12/19/2016	Soil	1
85891.08	A7-1.5	12/19/2016	Soil	1
85891.09	A8-1.5	12/19/2016	Soil	1
85891.12	A10-1.5	12/19/2016	Soil	1
85891.13	A11-1.5	12/19/2016	Soil	1
85891.14	A12-1.5	12/19/2016	Soil	1
85891.17	A14-1.5	12/19/2016	Soil	1
85891.18	A15-1.5	12/19/2016	Soil	1
85891.19	A16-1.5	12/19/2016	Soil	1
85891.21	A1-2	12/19/2016	Soil	1
85891.22	A1-2.5	12/19/2016	Soil	1
85891.23	A1-3	12/19/2016	Soil	1
85891.24	A1-3.5	12/19/2016	Soil	1
85891.25	A1-4	12/19/2016	Soil	1
85891.26	A2-2	12/19/2016	Soil	1
85891.27	A2-2.5	12/19/2016	Soil	1

Continued

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Attention: Michael Van Fleet

Project ID: 02-41-220-05
Date Received 12/20/2016
Date Reported 01/09/2017

Job Number	Order Date	Client
85891	12/20/2016	CONVRS

CERTIFICATE OF ANALYSIS

CASE NARRATIVE

85891.28	A2-3	12/19/2016	Soil	1
85891.29	A2-3.5	12/19/2016	Soil	1
85891.30	A2-4	12/19/2016	Soil	1
85891.31	A3-2	12/19/2016	Soil	1
85891.32	A3-2.5	12/19/2016	Soil	1
85891.33	A3-3	12/19/2016	Soil	1
85891.34	A3-3.5	12/19/2016	Soil	1
85891.35	A3-4	12/19/2016	Soil	1

Method ^ Submethod	Req Date	Priority	TAT	Units
ARCHIVE	12/27/2016	2	Normal	--

85891.05	AC-1-1.5	12/19/2016	Soil	1
85891.10	AC-2-1.5	12/19/2016	Soil	1
85891.15	AC-3-1.5	12/19/2016	Soil	1
85891.20	AC-4-1.5	12/19/2016	Soil	1

Method ^ Submethod	Req Date	Priority	TAT	Units
(8081A)	12/27/2016	2	Normal	ug/Kg
(9060)	12/27/2016	2	Normal	mg/Kg
(M8015D) ^ C13-C40	12/27/2016	2	Normal	mg/Kg
(M8015G)	12/27/2016	2	Normal	mg/Kg

The samples were analyzed as specified on the enclosed chain of custody.
No analytical non-conformances were encountered.

Unless otherwise noted, all results of soil and solid samples are based on wet weight.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

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ANALYTICAL RESULTS

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Page: **2**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85891	12/20/2016	CONVRS

Method: (6010BSCAN), Arsenic by ICP

QC Batch No: 1222162C4

Our Lab I.D.			Method Blank	85891.01	85891.06	85891.11	85891.16
Client Sample I.D.				A1-1.5	A5-1.5	A9-1.5	A13-1.5
Date Sampled				12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			12/22/2016	12/22/2016	12/22/2016	12/22/2016	12/22/2016
Preparation Method			3050B	3050B	3050B	3050B	3050B
Date Analyzed			12/23/2016	12/23/2016	12/23/2016	12/23/2016	12/23/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Arsenic	2.5	5.0	ND	ND	ND	ND	ND

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Page: **3**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85891	12/20/2016	CONVRS

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 122116OB1

Our Lab I.D.			Method Blank	85891.05	85891.10	85891.15	85891.20
Client Sample I.D.				AC-1-1.5	AC-2-1.5	AC-3-1.5	AC-4-1.5
Date Sampled				12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			12/21/2016	12/21/2016	12/21/2016	12/21/2016	12/21/2016
Preparation Method			5030	5030	5030	5030	5030
Date Analyzed			12/21/2016	12/21/2016	12/21/2016	12/21/2016	12/21/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
TPH as Gasoline and Light HC. (C4-C12)	0.100	1.000	ND	ND	ND	ND	ND
Our Lab I.D.			Method Blank	85891.05	85891.10	85891.15	85891.20
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Bromofluorobenzene	75-125		93.6	95.6	98.4	97.8	96.2

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85891	12/20/2016	CONVRS

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 122116PB1

Our Lab I.D.			Method Blank	85891.05	85891.10	85891.15	85891.20
Client Sample I.D.				AC-1-1.5	AC-2-1.5	AC-3-1.5	AC-4-1.5
Date Sampled				12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			12/21/2016	12/21/2016	12/21/2016	12/21/2016	12/21/2016
Preparation Method			3550B	3550B	3550B	3550B	3550B
Date Analyzed			12/21/2016	12/21/2016	12/21/2016	12/21/2016	12/21/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
TPH as Diesel (C13-C22)	1.0	5.0	ND	ND	ND	ND	ND
TPH as Heavy Hydrocarbons (C23-C40)	1.0	5.0	ND	ND	ND	ND	ND
TPH Total as Diesel and Heavy HC.C13-C40	1.0	5.0	ND	ND	ND	ND	ND
Our Lab I.D.			Method Blank	85891.05	85891.10	85891.15	85891.20
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Chlorobenzene	75-125		104	108	107	106	106

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ANALYTICAL RESULTS

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Page: 5

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85891	12/20/2016	CONVRS

Method: (8081A), Organochlorine Pesticides by GC

QC Batch No: 122116EB1

Our Lab I.D.			Method Blank	85891.05	85891.10	85891.15	85891.20
Client Sample I.D.				AC-1-1.5	AC-2-1.5	AC-3-1.5	AC-4-1.5
Date Sampled				12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			12/21/2016	12/21/2016	12/21/2016	12/21/2016	12/21/2016
Preparation Method			3550B	3550B	3550B	3550B	3550B
Date Analyzed			12/21/2016	12/21/2016	12/21/2016	12/21/2016	12/21/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Aldrin	1.0	2.0	ND	ND	ND	ND	ND
Chlordane (Total)	1.0	2.0	ND	ND	ND	ND	ND
Chlordane (alpha)	1.0	2.0	ND	ND	ND	ND	ND
4,4'-DDD (DDD)	1.0	2.0	ND	ND	ND	ND	ND
4,4'-DDE (DDE)	1.0	2.0	ND	ND	ND	ND	13.0
4,4'-DDT (DDT)	1.0	2.0	ND	ND	ND	ND	ND
Dieldrin	1.0	2.0	ND	ND	ND	ND	ND
Endosulfan 1	1.0	2.0	ND	ND	ND	ND	ND
Endosulfan 11	1.0	2.0	ND	ND	ND	ND	ND
Endosulfan sulfate	1.0	2.0	ND	ND	ND	ND	ND
Endrin	1.0	2.0	ND	ND	ND	ND	ND
Endrin aldehyde	1.0	2.0	ND	ND	ND	ND	ND
Endrin ketone	1.0	2.0	ND	ND	ND	ND	ND
Chlordane (gamma)	1.0	2.0	ND	ND	ND	ND	ND
Heptachlor	1.0	2.0	ND	ND	ND	ND	ND
Heptachlor epoxide	1.0	2.0	ND	ND	ND	ND	ND
alpha-Hexachlorocyclohexane (Alpha-BHC)	1.0	2.0	ND	ND	ND	ND	ND
beta-Hexachlorocyclohexane (Betta-BHC)	1.0	2.0	ND	ND	ND	ND	ND
delta-Hexachlorocyclohexane (Delta-BHC)	1.0	2.0	ND	ND	ND	ND	ND
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	1.0	2.0	ND	ND	ND	ND	ND
Methoxychlor	5.0	10.0	ND	ND	ND	ND	ND
Toxaphene	85.0	170.0	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85891	12/20/2016	CONVRS

Method: (8081A), Organochlorine Pesticides by GC

Our Lab I.D.			Method Blank	85891.05	85891.10	85891.15	85891.20
Surrogates	%Rec.Limit		% Rec.	% Rec.	% Rec.	% Rec.	% Rec.
Decachlorobiphenyl	30-150		150	105	102	123	124
Tetrachloro-m-xylene	30-150		131	87.0	93.8	119	110

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ANALYTICAL RESULTS

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Page: **7**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85891	12/20/2016	CONVRS

Method: (9060), Total Organic Carbon (SW-846)

QC Batch No: G1228TOCL1

Our Lab I.D.			Method Blank	85891.05	85891.10	85891.15	85891.20
Client Sample I.D.				AC-1-1.5	AC-2-1.5	AC-3-1.5	AC-4-1.5
Date Sampled				12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			12/28/2016	12/28/2016	12/28/2016	12/28/2016	12/28/2016
Preparation Method			9060	9060	9060	9060	9060
Date Analyzed			12/28/2016	12/28/2016	12/28/2016	12/28/2016	12/28/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Carbon, Total Organic (TOC)	500	500	ND	ND	ND	ND	2,700

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QUALITY CONTROL RESULTS

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Page: **8**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85891	12/20/2016	CONVRS

Method: (6010BSCAN), Arsenic by ICP

QC Batch No: 1222162C4; Dup or Spiked Sample: 85894.22; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/23/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Arsenic	0.00	50.0	43.3	86.5	50.0	42.2	84.3	2.58	75-125	<15

QC Batch No: 1222162C4; Dup or Spiked Sample: 85894.22; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/23/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Arsenic	50.0	46.0	92.0	50.0	46.6	93.2	1.30	75-125	<15	

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QUALITY CONTROL RESULTS

Ordered By

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Telephone: (626)930-1200
Attn: Michael Van Fleet
Page: 9

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85891	12/20/2016	CONVRS

Method: (8081A), Organochlorine Pesticides by GC

QC Batch No: 122116EB1; Dup or Spiked Sample: 85885.05; LCS: Clean Sand; QC Prepared: 12/21/2016; QC Analyzed: 12/21/2016; Units: ug/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Aldrin	0.00	20.0	17.3	86.5	20.0	17.8	89.0	2.85	40-150	<40
4,4'-DDT (DDT)	0.00	50.0	47.9	95.8	50.0	58.1	116	19.1	40-150	<40
Dieldrin	0.00	50.0	49.0	98.0	50.0	49.6	99.2	1.22	40-150	<40
Endrin	0.00	50.0	50.8	102	50.0	52.0	104	1.94	40-150	<40
Heptachlor	0.00	20.0	21.7	109	20.0	21.7	109	<1	40-150	<40
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	0.00	20.0	20.5	103	20.0	20.6	103	<1	40-150	<40
Surrogates										
Decachlorobiphenyl	0.00	50.0	68.5	137	50.0	70.0	140	2.19	30-150	<40
Tetrachloro-m-xylene	0.00	50.0	57.8	116	50.0	55.7	111	4.31	30-150	<40

QC Batch No: 122116EB1; Dup or Spiked Sample: 85885.05; LCS: Clean Sand; QC Prepared: 12/21/2016; QC Analyzed: 12/21/2016; Units: ug/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Aldrin	20.0	18.1	90.5	20.0	16.9	84.5	6.86	50-150	<40	
4,4'-DDT (DDT)	50.0	51.0	102	50.0	43.2	86.4	16.6	50-150	<40	
Dieldrin	50.0	49.6	99.2	50.0	47.7	95.4	3.91	50-150	<40	
Endrin	50.0	49.5	99.0	50.0	45.5	91.0	8.42	50-150	<40	
Heptachlor	20.0	22.0	110	20.0	21.0	105	4.65	50-150	<40	
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	20.0	21.1	106	20.0	19.9	99.5	6.33	50-150	<40	
Surrogates										
Decachlorobiphenyl	50.0	71.8	144	50.0	67.9	136	5.56	30-150	<40	
Tetrachloro-m-xylene	50.0	63.9	128	50.0	57.5	115	10.2	30-150	<40	

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QUALITY CONTROL RESULTS

Ordered By

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016-

Telephone: (626)930-1200
Attn: Michael Van Fleet
Page: **10**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85891	12/20/2016	CONVRS

Method: (9060), Total Organic Carbon (SW-846)

QC Batch No: G1228TOCL1; Dup or Spiked Sample: 85891.20; LCS: Clean Sand; QC Prepared: 12/28/2016; QC Analyzed: 12/28/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Carbon, Total Organic (TOC)	2,670	30,000	29,400	98.0	30,000	27,900	93.0	5.2	75-125	<25

QC Batch No: G1228TOCL1; Dup or Spiked Sample: 85891.20; LCS: Clean Sand; QC Prepared: 12/28/2016; QC Analyzed: 12/28/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Carbon, Total Organic (TOC)	6,000	6,240	104	6,000	6,180	103	<1	80-120	<20	

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QUALITY CONTROL RESULTS

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Monrovia, CA 91016-

Telephone: (626)930-1200
Attn: Michael Van Fleet
Page: **11**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85891	12/20/2016	CONVRS

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 122116PB1; Dup or Spiked Sample: 85893.12; LCS: Clean Sand; QC Prepared: 12/21/2016; QC Analyzed: 12/21/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
TPH as Diesel (C13-C22)	0.00	500	510	102	500	500	100	1.98	75-125	<20
Surrogates										
Chlorobenzene	0.00	100	103	103	100	103	103	<1	75-125	<20

QC Batch No: 122116PB1; Dup or Spiked Sample: 85893.12; LCS: Clean Sand; QC Prepared: 12/21/2016; QC Analyzed: 12/21/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
TPH as Diesel (C13-C22)	500	497	99.4	500	496	99.2	<1	75-125	<20	
Surrogates										
Chlorobenzene	100	98.3	98.3	100	98.1	98.1	<1	75-125	<20	

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Monrovia, CA 91016-

Telephone: (626)930-1200
Attn: Michael Van Fleet
Page: **12**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85891	12/20/2016	CONVRS

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 122116OB1; Dup or Spiked Sample: 85893.17CGA; LCS: Clean Sand; QC Prepared: 12/21/2016; QC Analyzed: 12/21/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
TPH as Gasoline and Light HC. (C4-C12)	0.00	1.00	0.863	86.3	1.00	0.875	87.5	1.38	75-125	<20
Surrogates										
Bromofluorobenzene	0.00	0.0500	0.0469	93.8	0.0500	0.0484	96.8	3.20	75-125	<20

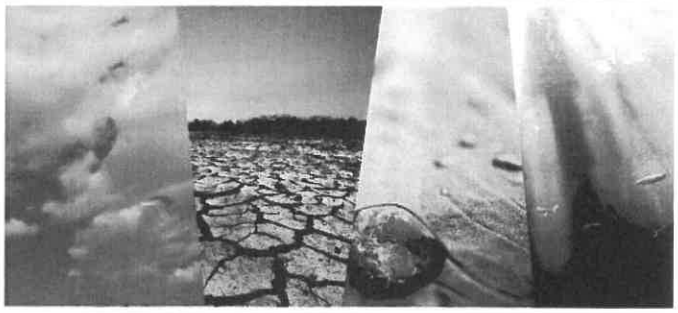
QC Batch No: 122116OB1; Dup or Spiked Sample: 85893.17CGA; LCS: Clean Sand; QC Prepared: 12/21/2016; QC Analyzed: 12/21/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
TPH as Gasoline and Light HC. (C4-C12)	1.00	1.00	100	1.00	1.01	101	<1	75-125	<20	
Surrogates										
Bromofluorobenzene	0.0500	0.0479	95.8	0.0500	0.0468	93.6	2.30	75-125	<20	

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WORK ORDER NUMBER: 16-12-2387

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For
Client: AETL
Client Project Name: 85891
Attention: Jim Lin
2834 North Naomi Street
Burbank, CA 91504-2023

Approved for release on 01/04/2017 by:
Don Burley
Project Manager

ResultLink ▸

Email your PM ▸

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Work Order Number: 16-12-2387

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Work Order Narrative

Work Order: 16-12-2387 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 12/23/16. They were assigned to Work Order 16-12-2387.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Sample Summary

Client:	AETL	Work Order:	16-12-2387
	2834 North Naomi Street	Project Name:	85891
	Burbank, CA 91504-2023	PO Number:	21806-sub
		Date/Time Received:	12/23/16 11:55
		Number of Containers:	4
Attn:	Jim Lin		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
85891-05	16-12-2387-1	12/19/16 00:00	1	Solid
85891-10	16-12-2387-2	12/19/16 00:00	1	Solid
85891-15	16-12-2387-3	12/19/16 00:00	1	Solid
85891-20	16-12-2387-4	12/19/16 00:00	1	Solid

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Analytical Report

AETL	Date Received:	12/23/16
2834 North Naomi Street	Work Order:	16-12-2387
Burbank, CA 91504-2023	Preparation:	N/A
	Method:	ASTM D-2216 (M)
	Units:	%
Project: 85891		Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85891-05	**16-12-2387-1-A**	**12/19/16 00:00**	**Solid**	**N/A**	**12/27/16**	**12/27/16 18:00**	**G1227MOIB2**

Parameter	Result	RL	DF	Qualifiers
Moisture	2.9	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85891-10	**16-12-2387-2-A**	**12/19/16 00:00**	**Solid**	**N/A**	**12/27/16**	**12/27/16 18:00**	**G1227MOIB2**

Parameter	Result	RL	DF	Qualifiers
Moisture	5.4	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85891-15	**16-12-2387-3-A**	**12/19/16 00:00**	**Solid**	**N/A**	**12/27/16**	**12/27/16 18:00**	**G1227MOIB2**

Parameter	Result	RL	DF	Qualifiers
Moisture	5.2	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85891-20	**16-12-2387-4-A**	**12/19/16 00:00**	**Solid**	**N/A**	**12/27/16**	**12/27/16 18:00**	**G1227MOIB2**

Parameter	Result	RL	DF	Qualifiers
Moisture	8.4	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-014-6592**	**N/A**	**Solid**	**N/A**	**12/27/16**	**12/27/16 18:00**	**G1227MOIB2**

Parameter	Result	RL	DF	Qualifiers
Moisture	ND	0.10	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AETL		Date Received:	12/23/16
2834 North Naomi Street		Work Order:	16-12-2387
Burbank, CA 91504-2023		Preparation:	N/A
		Method:	EPA 9060A
		Units:	mg/kg
Project: 85891			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85891-05	**16-12-2387-1-A**	**12/19/16 00:00**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85891-10	**16-12-2387-2-A**	**12/19/16 00:00**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85891-15	**16-12-2387-3-A**	**12/19/16 00:00**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85891-20	**16-12-2387-4-A**	**12/19/16 00:00**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	2700	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-06-013-1650**	**N/A**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

AETL	Date Received:	12/23/16
2834 North Naomi Street	Work Order:	16-12-2387
Burbank, CA 91504-2023	Preparation:	N/A
	Method:	EPA 9060A
Project: 85891		Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
85891-20	**Sample**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCS1**
85891-20	**Matrix Spike**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCS1**
85891-20	**Matrix Spike Duplicate**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	2670	30000	32090	98	30480	93	75-125	5	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

AETL		Date Received:	12/23/16
2834 North Naomi Street		Work Order:	16-12-2387
Burbank, CA 91504-2023		Preparation:	N/A
		Method:	ASTM D-2216 (M)
Project: 85891			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
85891-15	**Sample**	**Solid**	**N/A**	**12/27/16 00:00**	**12/27/16 18:00**	**G1227MOID2**
85891-15	**Sample Duplicate**	**Solid**	**N/A**	**12/27/16 00:00**	**12/27/16 18:00**	**G1227MOID2**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Moisture	5.200	5.100	2	0-10	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

AETL	Date Received: 12/23/16
2834 North Naomi Street	Work Order: 16-12-2387
Burbank, CA 91504-2023	Preparation: N/A
	Method: EPA 9060A
Project: 85891	Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-06-013-1650	**LCS**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCL1**
099-06-013-1650	**LCSD**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	6000	6261	104	6191	103	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 16-12-2387 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
ASTM D-2216 (M)	N/A	1009	N/A	1
EPA 9060A	N/A	735	TOC 9	1

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Glossary of Terms and Qualifiers

Work Order: 16-12-2387 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN-OF-CUSTODY RECORD

WO NO. / LAB USE ONLY: 16-12-2387

DATE: _____

PAGE: 1 OF 1

LABORATORY CLIENT: ACTL

ADDRESS: 2834 N. Naomi St

CITY: Burbank STATE: CA ZIP: 91504

TEL: 818/845-8200 E-MAIL:

CLIENT PROJECT NAME / NO.: 85891

PROJECT CONTACT: Jim Lin

GLOBAL ID: LOG CODE:

P.O. NO.: 21806-Sub

LAB CONTACT OR QUOTE NO.:

SAMPLER(S): (PRINT) CLIENT

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

EDD:
☐ COELT EDF ☐ OTHER

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH _____	BTEX / MTBE ☐ 8260 ☐ _____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	TOC (9060)			
1	85891-05	12/19/16		Soil	1402jar																		X			
2	-10																						X			
3	-15																						X			
4	-20																						X			

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 12/23/16	Time: 1155
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

2014-07-01 Revision

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WORK ORDER NUMBER: 16-12-2387

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: American Environmental Testing Laboratory

DATE: 12/23/2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): 2.5 °C (w/ CF): 2.5 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 107

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 107

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: AZL

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☐	☑	☐
☐ Sampling date ☑ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna_2 ☐ 100PJ ☐ 100PJna_2 ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB ☐ 125PBznna ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 250PB ☐ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☐ 500PB ☑ 1AGB ☐ 1AGBna_2 ☐ 1AGBs ☐ 1PB ☐ 1PBna ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☑ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na_2** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **x** = Na_2SO_3+$NaHSO_4.H_2O$, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: AZL

Reviewed by: 1053

Return to Contents

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Data Qualifiers and Descriptors

Data Qualifier:

#:	Recovery is not within acceptable control limits.
*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

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Ordered By

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016-

Telephone: (626)930-1200
Attention: Michael Van Fleet

Number of Pages	**26**
Date Received	**12/20/2016**
Date Reported	**01/09/2017**

Job Number	Order Date	Client
85893	12/20/2016	CONVRS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

Enclosed please find results of analyses of 22 soil samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Attachment: 16 pages

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.
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CHAIN OF CUSTODY RECORD

COMPANY: Converse Consultants | PHONE: (626) 930-1200
PROJECT MANAGER: Michael Van Fleet | FAX: (626) 930-1212
PROJECT NAME: Pardee - Meadowood | PROJECT #: 02-41-220-05
SITE NAME AND ADDRESS:

AETL JOB No. 85893

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	Arsenic - 6010	PCBs - 8082	OCPs - 8081	TOC - 9060	TPH - 8015	PAHs - 8310	Lead - 6010	Metals - 6010/7471	VOCs - 8260	Hold	TEST INSTRUCTIONS & COMMENTS
1	A15-2	85893-01	12-19-16	14:31	Soil	1 Sleeve	Ice										X	
2	-2.5	85893-02		14:32													X	
3	-3	85893-03		14:33													X	
4	-3.5	85893-04		14:34													X	
5	-4	85893-05		14:35													X	
6	A16-2	85893-06		14:41													X	
7	-2.5	85893-07		14:42													X	
8	-3	85893-08		14:43													X	
9	-3.5	85893-09		14:44													X	
10	-4	85893-10		14:45													X	
11	DS1	85893-11		16:00								X			X	X		
12	DS2	85893-12		16:15								X			X	X		
13																		
14																		
15																		

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	12	PROPERLY COOLED (Y) / N / NA	
CUSTODY SEALS Y / (N) / NA		SAMPLES INTACT (Y) / N / NA	
RECEIVED IN GOOD COND. (Y) / N		SAMPLES ACCEPTED (Y) / N	

TURN AROUND TIME

☑ NORMAL ☐ RUSH ☐ SAME DAY ☐ 24 HRS. ☐ 48 HRS. ☐ 72 HRS.

	1.	2.	3.
RELINQUISHED BY SAMPLER:	Signature:	RELINQUISHED BY: Signature:	RELINQUISHED BY: Signature:
	Printed Name: JOHN ZIEGLER	Printed Name:	Printed Name:
	Date: 12/20/16 Time: 0915	Date: Time:	Date: 12-20-16 Time: 1630
RECEIVED BY:	Signature:	RECEIVED BY: Signature:	RECEIVED BY LABORATORY: AETL Signature:
	Printed Name:	Printed Name:	Printed Name:
	Date: 12-20-16 Time: 0915	Date: Time:	Date: 12/20/16 Time: 1030

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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CHAIN OF CUSTODY RECORD

COMPANY: Converse Consultants | PHONE: (626) 930-1200
PROJECT MANAGER: Michael Van Fleet | FAX: (626) 930-1212
PROJECT NAME: Pardee - Meadowood | PROJECT #: 02-41-220-05
SITE NAME AND ADDRESS:

AETL JOB No. 85893

SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.
DA1	85893-13	12-19-16	8:51	Soil	1 sleeve	Ice
DA2	85893-14		9:25			
DA3	85893-15		9:59			
DA4	85893-16		9:45			
DAC1	85893-17		—		—	
DF1	85893-18		9:11			
DA5	85893-19		10:15			
DA6	85893-20		10:30			
DA7	85893-21		10:45			
DA8	85893-22		11:10			
DAC2	85893-23		—		—	
DA9	85893-24		11:30			
DA10	85893-25		11:40			
DF2	85893-26		13:06			
DF3	85893-27		1301			

ANALYSIS REQUESTED

Arsenic - 6010	PCBs - 8082	OCPs - 8081	TOC - 9060	TPH - 8015	PAHs - 8310	Lead - 6010	Metals - 6010/7471	VOCs - 8260	Hold	TEST INSTRUCTIONS & COMMENTS
X										
										Prepare Composite Sample
		X	X	X						DAC1 from discrete samples
			X				X			DA1, DA2, DA3, DA4
									X	
									X	
									X	
									X	
									X	
									X	
									X	
			X							
			X				X			

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	13	PROPERLY COOLED (Y / N / NA)	Y
CUSTODY SEALS Y / N / NA	N	SAMPLES INTACT (Y / N / NA)	Y
RECEIVED IN GOOD COND. (Y / N)	Y	SAMPLES ACCEPTED (Y / N)	Y

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ 24 HRS. ☐ 48 HRS. ☐ 72 HRS.

	1.	2.	3.
RELINQUISHED BY SAMPLER:	Signature:	RELINQUISHED BY: Signature:	RELINQUISHED BY: Signature:
	Printed Name: JOHN ZIEGLER	Printed Name:	Printed Name: Dawn's P
	Date: 12/20/16 Time: 0915	Date: Time:	Date: 12-20-16 Time: 1030
RECEIVED BY:	Signature:	RECEIVED BY: Signature:	RECEIVED BY LABORATORY: AETL Signature:
	Printed Name:	Printed Name:	Printed Name: Artin
	Date: 12-20-16 Time: 0915	Date: Time:	Date: 12/20/16 Time: 1030

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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CHAIN OF CUSTODY RECORD

AETL JOB No. 85893

COMPANY: Converse Consultants
PHONE: (626) 930-1200
PROJECT MANAGER: Michael Van Fleet
FAX: (626) 930-1212
PROJECT NAME: Pardee - Meadowood
PROJECT #: 02-41-220-05
SITE NAME AND ADDRESS:

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.
1	F1-2	85893.28	12-19-16	9:06	Soil	1 Sleeve	Ice
2	-4	85893.29		9:07			
3	-8	85893.30		9:10			
4	-12	85893.31		9:12			
5	F2-2	85893.32		13:05			
6	-4	85893.33		13:06			
7	-8	85893.34		13:10			
8	-12	85893.35		13:15			
9	F3-2	85893.36		15:00			
10	-4	85893.37		15:02			
11	-8	85893.38		15:05			
12	-12	85893.39		15:10			
13	F4-2	85893.40		15:21			
14	-4	85893.41		15:25			
15	-8	85893.42		15:27			

ANALYSIS REQUESTED									
Arsenic - 6010	PCBs - 8082	OCPs - 8081	TOC - 9060	TPH - 8015	PAHs - 8310	Lead - 6010	Metals - 6010/7471	VOCs - 8260	
			X				X		
			X						
			X				X		
			X						
							X		
			X						
			X				X		
			X						
							X		
			X						
			X				X		
			X						
							X		
			X						
			X				X		

TEST INSTRUCTIONS & COMMENTS:

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	15	PROPERLY COOLED (Y) / N / NA	
CUSTODY SEALS Y / (N) / NA		SAMPLES INTACT (Y) / N / NA	
RECEIVED IN GOOD COND. (Y) / N		SAMPLES ACCEPTED (Y) / N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ 24 HRS. ☐ 48 HRS. ☐ 72 HRS.

	1.	2.	3.
RELINQUISHED BY SAMPLER:	Signature:	Signature:	Signature:
	Printed Name: JOHN ZIEMER	Printed Name:	Printed Name: Sonia P
	Date: 12/20/16 Time: 0915	Date: Time:	Date: 12-20-16 Time: 1050
RECEIVED BY:	Signature:	Signature:	RECEIVED BY LABORATORY: AETL
	Printed Name: Sonia P	Printed Name:	Signature:
	Date: 12-20-16 Time: 0915	Date: Time:	Printed Name: Artin
			Date: 12/20/16 Time: 1030

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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Ordered By

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717 S Myrtle Ave
Monrovia, CA 91016-

Telephone: (626)930-1200
Attention: Michael Van Fleet

Project ID: 02-41-220-05
Date Received 12/20/2016
Date Reported 01/09/2017

Job Number	Order Date	Client
85893	12/20/2016	CONVRS

CERTIFICATE OF ANALYSIS
CASE NARRATIVE

AETL received 42 samples with the following specification on 12/20/2016.

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
85893.01	A15-2	12/19/2016	Soil	1
85893.02	A15-2.5	12/19/2016	Soil	1
85893.03	A15-3	12/19/2016	Soil	1
85893.04	A15-3.5	12/19/2016	Soil	1
85893.05	A15-4	12/19/2016	Soil	1
85893.06	A16-2	12/19/2016	Soil	1
85893.07	A16-2.5	12/19/2016	Soil	1
85893.08	A16-3	12/19/2016	Soil	1
85893.09	A16-3.5	12/19/2016	Soil	1
85893.10	A16-4	12/19/2016	Soil	1
85893.14	DA2	12/19/2016	Soil	1
85893.15	DA3	12/19/2016	Soil	1
85893.16	DA4	12/19/2016	Soil	1
85893.19	DA5	12/19/2016	Soil	1
85893.20	DA6	12/19/2016	Soil	1
85893.21	DA7	12/19/2016	Soil	1
85893.22	DA8	12/19/2016	Soil	1
85893.23	DAC2	12/19/2016	Soil	1
85893.24	DA9	12/19/2016	Soil	1
85893.25	DA10	12/19/2016	Soil	1

Method ^ Submethod	Req Date	Priority	TAT	Units
ARCHIVE	12/27/2016	2	Normal	--

85893.11	DS1	12/19/2016	Soil	1
85893.12	DS2	12/19/2016	Soil	1

Method ^ Submethod	Req Date	Priority	TAT	Units
(6010B/7000CAM)	12/27/2016	2	Normal	mg/Kg

Continued

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Telephone: (626)930-1200
Attention: Michael Van Fleet

Project ID: 02-41-220-05
Date Received 12/20/2016
Date Reported 01/09/2017

Job Number	Order Date	Client
85893	12/20/2016	CONVRS

CERTIFICATE OF ANALYSIS

CASE NARRATIVE

85893.12	DS2	12/19/2016	Soil		1

Method ^ Submethod	Req Date	Priority	TAT	Units
(8260B)	12/27/2016	2	Normal	ug/Kg
(M8015D) ^ C13-C40	12/27/2016	2	Normal	mg/Kg
(M8015G)	12/27/2016	2	Normal	mg/Kg

85893.13	DA1	12/19/2016	Soil		1

Method ^ Submethod	Req Date	Priority	TAT	Units
(6010BSCAN) ^ AS	12/27/2016	2	Normal	mg/Kg

85893.17	DAC1	12/19/2016	Soil		1

Method ^ Submethod	Req Date	Priority	TAT	Units
(8081A)	12/27/2016	2	Normal	ug/Kg
(9060)	12/27/2016	2	Normal	mg/Kg
(M8015D) ^ C13-C40	12/27/2016	2	Normal	mg/Kg
(M8015G)	12/27/2016	2	Normal	mg/Kg

85893.18	DF1	12/19/2016	Soil		1
85893.27	DF3	12/19/2016	Soil		1
85893.30	F1-8	12/19/2016	Soil		1
85893.34	F2-8	12/19/2016	Soil		1
85893.38	F3-8	12/19/2016	Soil		1
85893.42	F4-8	12/19/2016	Soil		1

Method ^ Submethod	Req Date	Priority	TAT	Units
(6010B/7000CAM)	12/27/2016	2	Normal	mg/Kg
(9060)	12/27/2016	2	Normal	mg/Kg

85893.26	DF2	12/19/2016	Soil		1
85893.29	F1-4	12/19/2016	Soil		1
85893.31	F1-12	12/19/2016	Soil		1
85893.33	F2-4	12/19/2016	Soil		1
85893.35	F2-12	12/19/2016	Soil		1
85893.37	F3-4	12/19/2016	Soil		1
85893.39	F3-12	12/19/2016	Soil		1

Continued

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Attention: Michael Van Fleet

Project ID: 02-41-220-05
Date Received 12/20/2016
Date Reported 01/09/2017

Job Number	Order Date	Client
85893	12/20/2016	CONVRS

CERTIFICATE OF ANALYSIS

CASE NARRATIVE

85893.41	F4-4	12/19/2016	Soil		1

Method ^ Submethod	Req Date	Priority	TAT	Units
(9060)	12/27/2016	2	Normal	mg/Kg

85893.28	F1-2	12/19/2016	Soil		1
85893.32	F2-2	12/19/2016	Soil		1
85893.36	F3-2	12/19/2016	Soil		1
85893.40	F4-2	12/19/2016	Soil		1

Method ^ Submethod	Req Date	Priority	TAT	Units
(6010B/7000CAM)	12/27/2016	2	Normal	mg/Kg

The samples were analyzed as specified on the enclosed chain of custody. Analytical non-conformances have been noted on the report.

Unless otherwise noted, all results of soil and solid samples are based on wet weight.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

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ANALYTICAL RESULTS

Ordered By

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016-

Telephone: (626)930-1200
Attn: Michael Van Fleet
Page: **2**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1222162A1

Our Lab I.D.			Method Blank	85893.11	85893.12		
Client Sample I.D.				DS1	DS2		
Date Sampled				12/19/2016	12/19/2016		
Date Prepared			12/22/2016	12/19/2016	12/19/2016		
Preparation Method			5030	5035A	5035A		
Date Analyzed			12/22/2016	12/22/2016	12/22/2016		
Matrix			Soil	Soil	Soil		
Units			ug/Kg	ug/Kg	ug/Kg		
Dilution Factor			1	1	1		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
Acetone	25	50	ND	ND	ND		
Benzene	1.0	10.0	ND	ND	ND		
Bromobenzene (Phenyl bromide)	5.0	10.0	ND	ND	ND		
Bromochloromethane	5.0	10.0	ND	ND	ND		
Bromodichloromethane	5.0	10.0	ND	ND	ND		
Bromoform (Tribromomethane)	25	50	ND	ND	ND		
Bromomethane (Methyl bromide)	15	30	ND	ND	ND		
2-Butanone (MEK)	25	50	ND	ND	ND		
n-Butylbenzene	5.0	10.0	ND	ND	ND		
sec-Butylbenzene	5.0	10.0	ND	ND	ND		
tert-Butylbenzene	5.0	10.0	ND	ND	ND		
Carbon Disulfide	25	50	ND	ND	ND		
Carbon tetrachloride	5.0	10.0	ND	ND	ND		
Chlorobenzene	5.0	10.0	ND	ND	ND		
Chloroethane	15	30	ND	ND	ND		
2-Chloroethyl vinyl ether	50	50	ND	ND	ND		
Chloroform (Trichloromethane)	5.0	10.0	ND	ND	ND		
Chloromethane (Methyl chloride)	15	30	ND	ND	ND		
2-Chlorotoluene	5.0	10.0	ND	ND	ND		
4-Chlorotoluene	5.0	10.0	ND	ND	ND		
1,2-Dibromo-3-chloropropane (DBCP)	25	50	ND	ND	ND		
Dibromochloromethane	5.0	10.0	ND	ND	ND		
1,2-Dibromoethane (EDB)	5.0	10.0	ND	ND	ND		
Dibromomethane	5.0	10.0	ND	ND	ND		
1,2-Dichlorobenzene	5.0	10.0	ND	ND	ND		
1,3-Dichlorobenzene	5.0	10.0	ND	ND	ND		
1,4-Dichlorobenzene	5.0	10.0	ND	ND	ND		
Dichlorodifluoromethane	15	30	ND	ND	ND		

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ANALYTICAL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1222162A1

Our Lab I.D.			Method Blank	85893.11	85893.12		
Client Sample I.D.				DS1	DS2		
Date Sampled				12/19/2016	12/19/2016		
Date Prepared			12/22/2016	12/19/2016	12/19/2016		
Preparation Method			5030	5035A	5035A		
Date Analyzed			12/22/2016	12/22/2016	12/22/2016		
Matrix			Soil	Soil	Soil		
Units			ug/Kg	ug/Kg	ug/Kg		
Dilution Factor			1	1	1		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
1,1-Dichloroethane	5.0	10.0	ND	ND	ND		
1,2-Dichloroethane (EDC)	5.0	10.0	ND	ND	ND		
1,1-Dichloroethene	5.0	10.0	ND	ND	ND		
cis-1,2-Dichloroethene	5.0	10.0	ND	ND	ND		
trans-1,2-Dichloroethene	5.0	10.0	ND	ND	ND		
1,2-Dichloropropane	5.0	10.0	ND	ND	ND		
1,3-Dichloropropane	5.0	10.0	ND	ND	ND		
2,2-Dichloropropane	5.0	10.0	ND	ND	ND		
1,1-Dichloropropene	5.0	10.0	ND	ND	ND		
cis-1,3-Dichloropropene	5.0	10.0	ND	ND	ND		
trans-1,3-Dichloropropene	5.0	10.0	ND	ND	ND		
Ethylbenzene	1.0	10.0	ND	ND	ND		
Hexachlorobutadiene	15	30	ND	ND	ND		
2-Hexanone	25	50	ND	ND	ND		
Iodomethane	5.0	10.0	ND	ND	ND		
Isopropylbenzene	5.0	10.0	ND	ND	ND		
p-Isopropyltoluene	5.0	10.0	ND	ND	ND		
4-Methyl-2-pentanone (MIBK)	25	50	ND	ND	ND		
Methyl-tert-butyl ether (MTBE)	2.0	10.0	ND	ND	ND		
Methylene chloride (DCM)	25	50	ND	ND	ND		
Naphthalene	5.0	10.0	ND	ND	ND		
n-Propylbenzene	5.0	10.0	ND	ND	ND		
Styrene	5.0	10.0	ND	ND	ND		
1,1,1,2-Tetrachloroethane	5.0	10.0	ND	ND	ND		
1,1,2,2-Tetrachloroethane	5.0	10.0	ND	ND	ND		
Tetrachloroethene	2.0	10.0	ND	ND	ND		
Toluene (Methyl benzene)	1.0	10.0	ND	ND	ND		
1,2,3-Trichlorobenzene	5.0	10.0	ND	ND	ND		
1,2,4-Trichlorobenzene	5.0	10.0	ND	ND	ND		
1,1,1-Trichloroethane	5.0	10.0	ND	ND	ND		
1,1,2-Trichloroethane	5.0	10.0	ND	ND	ND		
Trichloroethene	1.5	10.0	ND	ND	ND		
Trichlorofluoromethane	5.0	10.0	ND	ND	ND		
1,2,3-Trichloropropane	5.0	10.0	ND	ND	ND		

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ANALYTICAL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1222162A1

Our Lab I.D.			Method Blank	85893.11	85893.12		
Client Sample I.D.				DS1	DS2		
Date Sampled				12/19/2016	12/19/2016		
Date Prepared			12/22/2016	12/19/2016	12/19/2016		
Preparation Method			5030	5035A	5035A		
Date Analyzed			12/22/2016	12/22/2016	12/22/2016		
Matrix			Soil	Soil	Soil		
Units			ug/Kg	ug/Kg	ug/Kg		
Dilution Factor			1	1	1		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
1,2,4-Trimethylbenzene	5.0	10.0	ND	ND	ND		
1,3,5-Trimethylbenzene	5.0	10.0	ND	ND	ND		
Vinyl Acetate	25	50	ND	ND	ND		
Vinyl chloride (Chloroethene)	5.0	10.0	ND	ND	ND		
o-Xylene	1.0	10.0	ND	ND	ND		
m,p-Xylenes	1.0	20.0	ND	ND	ND		
Our Lab I.D.			Method Blank	85893.11	85893.12		
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**		
Bromofluorobenzene	75-125		77.2	105	103		
Dibromofluoromethane	75-125		104	113	107		
Toluene-d8	75-125		96.9	100	100		

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 122116OB1

Our Lab I.D.			Method Blank	85893.11	85893.12	85893.17	
Client Sample I.D.				DS1	DS2	DAC1	
Date Sampled				12/19/2016	12/19/2016	12/19/2016	
Date Prepared			12/21/2016	12/19/2016	12/19/2016	12/21/2016	
Preparation Method			5030	5035A	5035A	5030	
Date Analyzed			12/21/2016	12/21/2016	12/21/2016	12/21/2016	
Matrix			Soil	Soil	Soil	Soil	
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	
Dilution Factor			1	1	1	1	
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	
TPH as Gasoline and Light HC. (C4-C12)	0.100	1.000	ND	ND	ND	ND	
Our Lab I.D.			Method Blank	85893.11	85893.12	85893.17	
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	
Bromofluorobenzene	75-125		93.6	98.4	96.4	99.8	

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 122116PB1

Our Lab I.D.			Method Blank	85893.11	85893.12	85893.17	
Client Sample I.D.				DS1	DS2	DAC1	
Date Sampled				12/19/2016	12/19/2016	12/19/2016	
Date Prepared			12/21/2016	12/21/2016	12/21/2016	12/21/2016	
Preparation Method			3550B	3550B	3550B	3550B	
Date Analyzed			12/21/2016	12/21/2016	12/21/2016	12/21/2016	
Matrix			Soil	Soil	Soil	Soil	
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	
Dilution Factor			1	1	1	1	
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	
TPH as Diesel (C13-C22)	1.0	5.0	ND	ND	ND	ND	
TPH as Heavy Hydrocarbons (C23-C40)	1.0	5.0	ND	ND	ND	ND	
TPH Total as Diesel and Heavy HC.C13-C40	1.0	5.0	ND	ND	ND	ND	
Our Lab I.D.			Method Blank	85893.11	85893.12	85893.17	
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	
Chlorobenzene	75-125		104	107	108	106	

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1222162C1

Our Lab I.D.			Method Blank	85893.11	85893.12	85893.18	85893.27
Client Sample I.D.				DS1	DS2	DF1	DF3
Date Sampled				12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			12/22/2016	12/22/2016	12/22/2016	12/22/2016	12/22/2016
Preparation Method			3050B	3050B	3050B	3050B	3050B
Date Analyzed			12/23/2016	12/23/2016	12/23/2016	12/23/2016	12/23/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Antimony	1.0	5.0	ND	ND	ND	ND	ND
Arsenic	1.0	5.0	ND	ND	2.15J	ND	3.82J
Barium	2.5	5.0	ND	78.5	68.3	49.0	95.7
Beryllium	1.3	2.5	ND	ND	ND	ND	ND
Cadmium	1.3	2.5	ND	ND	ND	ND	ND
Chromium	2.5	5.0	ND	4.85J	9.11	3.24J	11.4
Cobalt	2.5	5.0	ND	6.26	5.33	5.23	6.77
Copper	2.5	5.0	ND	16.7	9.76	ND	12.4
Lead	2.5	5.0	ND	ND	ND	ND	ND
Mercury (By EPA 7471)	0.1	0.2	ND	ND	ND	ND	ND
Molybdenum	2.5	5.0	ND	ND	ND	ND	ND
Nickel	2.5	5.0	ND	ND	2.78J	ND	4.52J
Selenium	1.0	5.0	ND	ND	ND	ND	ND
Silver	2.5	5.0	ND	ND	ND	ND	ND
Thallium	1.0	5.0	ND	ND	ND	ND	ND
Vanadium	2.5	5.0	ND	39.8	46.7	20.8	44.6
Zinc	2.5	5.0	ND	38.3	36.3	23.5	40.2

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1222162C1

Our Lab I.D.			85893.28	85893.30	85893.32	85893.34	85893.36
Client Sample I.D.			F1-2	F1-8	F2-2	F2-8	F3-2
Date Sampled			12/19/2016	12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			12/22/2016	12/22/2016	12/22/2016	12/22/2016	12/22/2016
Preparation Method			3050B	3050B	3050B	3050B	3050B
Date Analyzed			12/23/2016	12/23/2016	12/23/2016	12/23/2016	12/23/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Antimony	1.0	5.0	ND	ND	ND	ND	ND
Arsenic	1.0	5.0	ND	ND	2.34J	ND	ND
Barium	2.5	5.0	59.7	43.3	114	58.2	77.6
Beryllium	1.3	2.5	ND	ND	ND	ND	ND
Cadmium	1.3	2.5	ND	ND	ND	ND	ND
Chromium	2.5	5.0	4.67J	2.82J	15.1	9.86	4.45J
Cobalt	2.5	5.0	4.90J	5.55	8.59	5.09	6.08
Copper	2.5	5.0	2.51J	ND	15.8	11.2	5.04
Lead	2.5	5.0	ND	ND	ND	ND	ND
Mercury (By EPA 7471)	0.1	0.2	ND	ND	ND	ND	ND
Molybdenum	2.5	5.0	ND	ND	ND	ND	ND
Nickel	2.5	5.0	ND	ND	5.07	3.10J	ND
Selenium	1.0	5.0	ND	ND	ND	ND	ND
Silver	2.5	5.0	ND	ND	ND	ND	ND
Thallium	1.0	5.0	ND	ND	ND	ND	ND
Vanadium	2.5	5.0	19.8	17.3	57.1	34.4	42.6
Zinc	2.5	5.0	23.9	20.1	44.8	30.9	33.6

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1222162C2

Our Lab I.D.			Method Blank	85893.38	85893.40	85893.42	
Client Sample I.D.				F3-8	F4-2	F4-8	
Date Sampled				12/19/2016	12/19/2016	12/19/2016	
Date Prepared			12/22/2016	12/22/2016	12/22/2016	12/22/2016	
Preparation Method			3050B	3050B	3050B	3050B	
Date Analyzed			12/23/2016	12/23/2016	12/23/2016	12/23/2016	
Matrix			Soil	Soil	Soil	Soil	
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	
Dilution Factor			1	1	1	1	
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	
Antimony	1.0	5.0	ND	ND	ND	ND	
Arsenic	1.0	5.0	ND	ND	ND	ND	
Barium	2.5	5.0	ND	68.2	76.3	92.0	
Beryllium	1.3	2.5	ND	ND	ND	ND	
Cadmium	1.3	2.5	ND	ND	ND	ND	
Chromium	2.5	5.0	ND	6.35	12.3	12.8	
Cobalt	2.5	5.0	ND	5.27	6.89	6.42	
Copper	2.5	5.0	ND	7.34	10.1	8.37	
Lead	2.5	5.0	ND	ND	ND	ND	
Mercury (By EPA 7471)	0.1	0.2	ND	ND	ND	ND	
Molybdenum	2.5	5.0	ND	ND	ND	ND	
Nickel	2.5	5.0	ND	ND	3.65J	3.81J	
Selenium	1.0	5.0	ND	ND	ND	ND	
Silver	2.5	5.0	ND	ND	ND	ND	
Thallium	1.0	5.0	ND	ND	ND	ND	
Vanadium	2.5	5.0	ND	36.5	47.2	47.0	
Zinc	2.5	5.0	ND	28.2	31.1	47.3	

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (6010BSCAN), Arsenic by ICP

QC Batch No: 1222162C1

Our Lab I.D.			Method Blank	85893.13			
Client Sample I.D.				DA1			
Date Sampled				12/19/2016			
Date Prepared			12/22/2016	12/22/2016			
Preparation Method			3050B	3050B			
Date Analyzed			12/23/2016	12/23/2016			
Matrix			Soil	Soil			
Units			mg/Kg	mg/Kg			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Arsenic	2.5	5.0	ND	ND			

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (8081A), Organochlorine Pesticides by GC

QC Batch No: 122116EB1

Our Lab I.D.			Method Blank	**85893.17**			
Client Sample I.D.				DAC1			
Date Sampled				12/19/2016			
Date Prepared			12/21/2016	12/21/2016			
Preparation Method			3550B	3550B			
Date Analyzed			12/21/2016	12/21/2016			
Matrix			Soil	Soil			
Units			ug/Kg	ug/Kg			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Aldrin	1.0	2.0	ND	ND			
Chlordane (Total)	1.0	2.0	ND	ND			
Chlordane (alpha)	1.0	2.0	ND	ND			
4,4'-DDD (DDD)	1.0	2.0	ND	ND			
4,4'-DDE (DDE)	1.0	2.0	ND	ND			
4,4'-DDT (DDT)	1.0	2.0	ND	ND			
Dieldrin	1.0	2.0	ND	ND			
Endosulfan 1	1.0	2.0	ND	ND			
Endosulfan 11	1.0	2.0	ND	ND			
Endosulfan sulfate	1.0	2.0	ND	ND			
Endrin	1.0	2.0	ND	ND			
Endrin aldehyde	1.0	2.0	ND	ND			
Endrin ketone	1.0	2.0	ND	ND			
Chlordane (gamma)	1.0	2.0	ND	ND			
Heptachlor	1.0	2.0	ND	ND			
Heptachlor epoxide	1.0	2.0	ND	ND			
alpha-Hexachlorocyclohexane (Alpha-BHC)	1.0	2.0	ND	ND			
beta-Hexachlorocyclohexane (Betta-BHC)	1.0	2.0	ND	ND			
delta-Hexachlorocyclohexane (Delta-BHC)	1.0	2.0	ND	ND			
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	1.0	2.0	ND	ND			
Methoxychlor	5.0	10.0	ND	ND			
Toxaphene	85.0	170.0	ND	ND			

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ANALYTICAL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (8081A), Organochlorine Pesticides by GC

Our Lab I.D.			Method Blank	**85893.17**			
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**			
Decachlorobiphenyl	30-150		150	120			
Tetrachloro-m-xylene	30-150		131	117			

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (9060), Total Organic Carbon (SW-846)

QC Batch No: H0103TOCL1

Our Lab I.D.			Method Blank	85893.17	85893.18	85893.26	85893.27
Client Sample I.D.				DAC1	DF1	DF2	DF3
Date Sampled				12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			01/03/2017	01/03/2017	01/03/2017	01/03/2017	01/03/2017
Preparation Method			9060	9060	9060	9060	9060
Date Analyzed			01/03/2017	01/03/2017	01/03/2017	01/03/2017	01/03/2017
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Carbon, Total Organic (TOC)	500	500	ND	ND	ND	ND	ND

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (9060), Total Organic Carbon (SW-846)

QC Batch No: H0103TOCL1

Our Lab I.D.			85893.29	85893.30	85893.31	85893.33	85893.34
Client Sample I.D.			F1-4	F1-8	F1-12	F2-4	F2-8
Date Sampled			12/19/2016	12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			01/03/2017	01/03/2017	01/03/2017	01/03/2017	01/03/2017
Preparation Method			9060	9060	9060	9060	9060
Date Analyzed			01/03/2017	01/03/2017	01/03/2017	01/03/2017	01/03/2017
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Carbon, Total Organic (TOC)	500	500	ND	ND	ND	ND	ND

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (9060), Total Organic Carbon (SW-846)

QC Batch No: H0103TOCL1

Our Lab I.D.			85893.35	85893.37	85893.38	85893.39	85893.41
Client Sample I.D.			F2-12	F3-4	F3-8	F3-12	F4-4
Date Sampled			12/19/2016	12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			01/03/2017	01/03/2017	01/03/2017	01/03/2017	01/03/2017
Preparation Method			9060	9060	9060	9060	9060
Date Analyzed			01/03/2017	01/03/2017	01/03/2017	01/03/2017	01/03/2017
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Carbon, Total Organic (TOC)	500	500	ND	ND	ND	ND	ND

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (9060), Total Organic Carbon (SW-846)

QC Batch No: H0103TOCL1

Our Lab I.D.			85893.42				
Client Sample I.D.			F4-8				
Date Sampled			12/19/2016				
Date Prepared			01/03/2017				
Preparation Method			9060				
Date Analyzed			01/03/2017				
Matrix			Soil				
Units			mg/Kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Carbon, Total Organic (TOC)	500	500	ND				

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1222162C1; Dup or Spiked Sample: 85893.11; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/23/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Antimony	0.00	50.0	40.9	81.8	50.0	40.7	81.4	<1	75-125	<15
Arsenic	0.00	50.0	43.1	86.2	50.0	43.9	87.8	1.84	75-125	<15
Barium	78.5	50.0	125	93.0	50.0	126	95.0	2.13	75-125	<15
Beryllium	0.00	50.0	47.6	95.2	50.0	47.7	95.4	<1	75-125	<15
Cadmium	2.10	50.0	43.8	83.4	50.0	44.0	83.8	<1	75-125	<15
Chromium	4.85	50.0	48.6	87.5	50.0	48.8	87.9	<1	75-125	<15
Cobalt	6.26	50.0	46.4	80.3	50.0	46.7	80.9	<1	75-125	<15
Copper	16.7	50.0	55.5	77.6	50.0	55.4	77.4	<1	75-125	<15
Lead	0.00	50.0	38.2	76.4	50.0	38.5	77.0	<1	75-125	<15
Mercury (By EPA 7471)	0.00	0.500	0.545	109	0.500	0.615	123	12.1	75-125	<15
Molybdenum	0.00	50.0	42.9	85.8	50.0	43.0	86.0	<1	75-125	<15
Nickel	0.00	50.0	42.3	84.6	50.0	42.5	85.0	<1	75-125	<15
Selenium	0.00	50.0	35.7 M	71.4	50.0	35.6 M	71.2	<1	75-125	<15
Silver	0.00	50.0	41.5	83.0	50.0	41.6	83.2	<1	75-125	<15
Thallium	0.00	50.0	32.9 M	65.8	50.0	32.8 M	65.6	<1	75-125	<15
Vanadium	39.8	50.0	83.9	88.2	50.0	84.5	89.4	1.35	75-125	<15
Zinc	38.3	50.0	78.2	79.8	50.0	78.4	80.2	<1	75-125	<15

QC Batch No: 1222162C1; Dup or Spiked Sample: 85893.11; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/23/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Antimony	50.0	45.5	91.0	50.0	46.1	92.2	1.31	75-125	<15	
Arsenic	50.0	48.4	96.8	50.0	48.0	96.0	<1	75-125	<15	
Barium	50.0	47.0	94.0	50.0	46.9	93.8	<1	75-125	<15	
Beryllium	50.0	51.7	103	50.0	51.5	103	<1	75-125	<15	
Cadmium	50.0	46.4	92.8	50.0	46.3	92.6	<1	75-125	<15	
Chromium	50.0	45.7	91.4	50.0	45.6	91.2	<1	75-125	<15	
Cobalt	50.0	43.8	87.6	50.0	43.7	87.4	<1	75-125	<15	
Copper	50.0	44.2	88.4	50.0	44.1	88.2	<1	75-125	<15	
Lead	50.0	43.6	87.2	50.0	43.7	87.4	<1	75-125	<15	
Mercury (By EPA 7471)	0.500	0.520	104	0.500	0.530	106	1.9	75-125	<15	

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QUALITY CONTROL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1222162C1; Dup or Spiked Sample: 85893.11; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/23/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Molybdenum	50.0	46.0	92.0	50.0	46.3	92.6	<1	75-125	<15	
Nickel	50.0	43.3	86.6	50.0	43.3	86.6	<1	75-125	<15	
Selenium	50.0	48.7	97.4	50.0	48.0	96.0	1.45	75-125	<15	
Silver	50.0	43.2	86.4	50.0	43.2	86.4	<1	75-125	<15	
Thallium	50.0	42.7	85.4	50.0	42.8	85.6	<1	75-125	<15	
Vanadium	50.0	47.0	94.0	50.0	46.9	93.8	<1	75-125	<15	
Zinc	50.0	49.1	98.2	50.0	49.1	98.2	<1	75-125	<15	

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1222162C2; Dup or Spiked Sample: 85893.38; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/23/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Antimony	0.00	50.0	42.4	84.8	50.0	42.1	84.2	<1	75-125	<15
Arsenic	0.00	50.0	43.4	86.8	50.0	42.9	85.8	1.16	75-125	<15
Barium	68.2	50.0	107	77.6	50.0	107	77.6	<1	75-125	<15
Beryllium	0.00	50.0	47.9	95.8	50.0	48.1	96.2	<1	75-125	<15
Cadmium	0.00	50.0	43.7	87.4	50.0	41.5	83.0	5.16	75-125	<15
Chromium	6.35	50.0	49.7	86.7	50.0	49.1	85.5	1.39	75-125	<15
Cobalt	5.27	50.0	46.0	81.5	50.0	45.6	80.7	<1	75-125	<15
Copper	7.34	50.0	52.7	90.7	50.0	52.8	90.9	<1	75-125	<15
Lead	0.00	50.0	38.2	76.4	50.0	38.0	76.0	<1	75-125	<15
Mercury (By EPA 7471)	0.00	0.500	0.555	111	0.500	0.585	117	5.3	75-125	<15
Molybdenum	0.00	50.0	43.7	87.4	50.0	43.3	86.6	<1	75-125	<15
Nickel	0.00	50.0	42.7	85.4	50.0	42.3	84.6	<1	75-125	<15
Selenium	0.00	50.0	36.2 M	72.4	50.0	36.1 M	72.2	<1	75-125	<15
Silver	0.00	50.0	41.4	82.8	50.0	41.6	83.2	<1	75-125	<15
Thallium	0.00	50.0	32.9 M	65.8	50.0	32.8 M	65.6	<1	75-125	<15
Vanadium	36.5	50.0	78.9	84.8	50.0	79.3	85.6	<1	75-125	<15
Zinc	28.2	50.0	69.7	83.0	50.0	70.1	83.8	<1	75-125	<15

QC Batch No: 1222162C2; Dup or Spiked Sample: 85893.38; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/23/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Antimony	50.0	42.8	85.6	50.0	44.4	88.8	3.67	75-125	<15	
Arsenic	50.0	47.1	94.2	50.0	48.0	96.0	1.89	75-125	<15	
Barium	50.0	46.7	93.4	50.0	46.3	92.6	<1	75-125	<15	
Beryllium	50.0	51.6	103	50.0	51.2	102	<1	75-125	<15	
Cadmium	50.0	45.3	90.6	50.0	45.0	90.0	<1	75-125	<15	
Chromium	50.0	45.2	90.4	50.0	44.8	89.6	<1	75-125	<15	
Cobalt	50.0	43.4	86.8	50.0	43.2	86.4	<1	75-125	<15	
Copper	50.0	43.9	87.8	50.0	43.3	86.6	1.38	75-125	<15	
Lead	50.0	42.9	85.8	50.0	43.3	86.6	<1	75-125	<15	
Mercury (By EPA 7471)	0.500	0.520	104	0.500	0.530	106	1.9	75-125	<15	

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QUALITY CONTROL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1222162C2; Dup or Spiked Sample: 85893.38; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/23/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Molybdenum	50.0	45.7	91.4	50.0	46.6	93.2	1.95	75-125	<15	
Nickel	50.0	43.3	86.6	50.0	42.7	85.4	1.40	75-125	<15	
Selenium	50.0	46.9	93.8	50.0	48.1	96.2	2.53	75-125	<15	
Silver	50.0	43.0	86.0	50.0	42.8	85.6	<1	75-125	<15	
Thallium	50.0	41.2	82.4	50.0	42.1	84.2	2.16	75-125	<15	
Vanadium	50.0	46.6	93.2	50.0	46.2	92.4	<1	75-125	<15	
Zinc	50.0	48.3	96.6	50.0	47.9	95.8	<1	75-125	<15	

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (6010BSCAN), Arsenic by ICP

QC Batch No: 1222162C1; Dup or Spiked Sample: 85893.11; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/23/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Arsenic	0.00	50.0	43.1	86.2	50.0	43.9	87.8	1.84	75-125	<15

QC Batch No: 1222162C1; Dup or Spiked Sample: 85893.11; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/23/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Arsenic	50.0	48.4	96.8	50.0	48.0	96.0	<1	75-125	<15	

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (8081A), Organochlorine Pesticides by GC

QC Batch No: 122116EB1; Dup or Spiked Sample: 85885.05; LCS: Clean Sand; QC Prepared: 12/21/2016; QC Analyzed: 12/21/2016; Units: ug/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Aldrin	0.00	20.0	17.3	86.5	20.0	17.8	89.0	2.85	40-150	<40
4,4'-DDT (DDT)	0.00	50.0	47.9	95.8	50.0	58.1	116	19.1	40-150	<40
Dieldrin	0.00	50.0	49.0	98.0	50.0	49.6	99.2	1.22	40-150	<40
Endrin	0.00	50.0	50.8	102	50.0	52.0	104	1.94	40-150	<40
Heptachlor	0.00	20.0	21.7	109	20.0	21.7	109	<1	40-150	<40
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	0.00	20.0	20.5	103	20.0	20.6	103	<1	40-150	<40
Surrogates										
Decachlorobiphenyl	0.00	50.0	68.5	137	50.0	70.0	140	2.19	30-150	<40
Tetrachloro-m-xylene	0.00	50.0	57.8	116	50.0	55.7	111	4.31	30-150	<40

QC Batch No: 122116EB1; Dup or Spiked Sample: 85885.05; LCS: Clean Sand; QC Prepared: 12/21/2016; QC Analyzed: 12/21/2016; Units: ug/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Aldrin	20.0	18.1	90.5	20.0	16.9	84.5	6.86	50-150	<40	
4,4'-DDT (DDT)	50.0	51.0	102	50.0	43.2	86.4	16.6	50-150	<40	
Dieldrin	50.0	49.6	99.2	50.0	47.7	95.4	3.91	50-150	<40	
Endrin	50.0	49.5	99.0	50.0	45.5	91.0	8.42	50-150	<40	
Heptachlor	20.0	22.0	110	20.0	21.0	105	4.65	50-150	<40	
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	20.0	21.1	106	20.0	19.9	99.5	6.33	50-150	<40	
Surrogates										
Decachlorobiphenyl	50.0	71.8	144	50.0	67.9	136	5.56	30-150	<40	
Tetrachloro-m-xylene	50.0	63.9	128	50.0	57.5	115	10.2	30-150	<40	

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1222162A1; Dup or Spiked Sample: 85915.01; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/22/2016; Units: ug/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Benzene	0.00	50.0	41.8	83.6	50.0	40.6	81.2	2.91	75-125	<20
Chlorobenzene	0.00	50.0	39.0	78.0	50.0	38.4	76.8	1.55	75-125	<20
1,1-Dichloroethene	0.00	50.0	42.0	84.0	50.0	40.2	80.4	4.38	75-125	<20
Methyl-tert-butyl ether (MTBE)	0.00	50.0	45.7	91.4	50.0	44.0	88.0	3.79	75-125	<20
Toluene (Methyl benzene)	0.00	50.0	39.7	79.4	50.0	38.0	76.0	4.38	75-125	<20
Trichloroethene	0.00	50.0	44.7	89.4	50.0	43.1	86.2	3.64	75-125	<20
Surrogates										
Bromofluorobenzene	0.00	50.0	50.5	101	50.0	50.0	99.9	1.09	75-125	<20
Dibromofluoromethane	0.00	50.0	47.0	93.9	50.0	48.3	96.6	2.88	75-125	<20
Toluene-d8	0.00	50.0	48.3	96.5	50.0	48.1	96.1	<1	75-125	<20

QC Batch No: 1222162A1; Dup or Spiked Sample: 85915.01; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/22/2016; Units: ug/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Benzene	50.0	52.0	104	50.0	57.8	116	10.9	75-125	<20	
Chlorobenzene	50.0	55.3	111	50.0	59.7	119	6.96	75-125	<20	
1,1-Dichloroethene	50.0	61.0	122	50.0	57.3	115	5.91	75-125	<20	
Methyl-tert-butyl ether (MTBE)	50.0	50.3	101	50.0	48.0	96.0	5.08	75-125	<20	
Toluene (Methyl benzene)	50.0	54.8	110	50.0	60.0	120	8.70	75-125	<20	
Trichloroethene	50.0	59.8	120	50.0	56.7	113	6.01	75-125	<20	
LCS										
Chloroform (Trichloromethane)	50.0	56.4	113	50.0	59.6	119	5.17	75-125	<20	
Ethylbenzene	50.0	57.9	116	50.0	61.2	122	5.04	75-125	<20	
1,1,1-Trichloroethane	50.0	62.5	125	50.0	54.4	109	13.7	75-125	<20	
o-Xylene	50.0	53.4	107	50.0	59.4	119	10.6	75-125	<20	
m,p-Xylenes	100	111	111	100	125	125	11.9	75-125	<20	
Surrogates										
Bromofluorobenzene	50.0	49.7	99.3	50.0	48.5	97.0	2.32	75-125	<20	
Dibromofluoromethane	50.0	47.5	95.1	50.0	44.0	88.0	7.47	75-125	<20	
Toluene-d8	50.0	48.0	96.1	50.0	46.7	93.4	2.81	75-125	<20	

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QUALITY CONTROL RESULTS

Ordered By

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016-

Telephone: (626)930-1200
Attn: Michael Van Fleet
Page: **24**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (9060), Total Organic Carbon (SW-846)

QC Batch No: H0103TOCL1; Dup or Spiked Sample: 85893.17; LCS: Clean Sand; QC Prepared: 01/03/2017; QC Analyzed: 01/03/2017; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Carbon, Total Organic (TOC)	0.00	30,000	31,800	106	30,000	33,300	111	4.6	80-120	<20

QC Batch No: H0103TOCL1; Dup or Spiked Sample: 85893.17; LCS: Clean Sand; QC Prepared: 01/03/2017; QC Analyzed: 01/03/2017; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Carbon, Total Organic (TOC)	6,000	6,540	109	6,000	6,780	113	3.6	80-120	<20	

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Monrovia, CA 91016-

Telephone: (626)930-1200
Attn: Michael Van Fleet
Page: **25**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 122116PB1; Dup or Spiked Sample: 85893.12; LCS: Clean Sand; QC Prepared: 12/21/2016; QC Analyzed: 12/21/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
TPH as Diesel (C13-C22)	0.00	500	508	102	500	500	100	1.98	75-125	<20
Surrogates										
Chlorobenzene	0.00	100	103	103	100	103	103	<1	75-125	<20

QC Batch No: 122116PB1; Dup or Spiked Sample: 85893.12; LCS: Clean Sand; QC Prepared: 12/21/2016; QC Analyzed: 12/21/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
TPH as Diesel (C13-C22)	500	497	99.4	500	496	99.2	<1	75-125	<20	
Surrogates										
Chlorobenzene	100	98.3	98.3	100	98.1	98.1	<1	75-125	<20	

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QUALITY CONTROL RESULTS

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Monrovia, CA 91016-

Telephone: (626)930-1200
Attn: Michael Van Fleet
Page: **26**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85893	12/20/2016	CONVRS

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 122116OB1; Dup or Spiked Sample: 85893.17CGA; LCS: Clean Sand; QC Prepared: 12/21/2016; QC Analyzed: 12/21/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
TPH as Gasoline and Light HC. (C4-C12)	0.00	1.00	0.860	86.3	1.00	0.880	87.5	1.38	75-125	<20
Surrogates										
Bromofluorobenzene	0.00	0.0500	0.0469	93.8	0.0500	0.0484	96.8	3.20	75-125	<20

QC Batch No: 122116OB1; Dup or Spiked Sample: 85893.17CGA; LCS: Clean Sand; QC Prepared: 12/21/2016; QC Analyzed: 12/21/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
TPH as Gasoline and Light HC. (C4-C12)	1.00	1.00	100	1.00	1.01	101	<1	75-125	<20	
Surrogates										
Bromofluorobenzene	0.0500	0.0479	95.8	0.0500	0.0468	93.6	2.30	75-125	<20	

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WORK ORDER NUMBER: 16-12-2390

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For
Client: AETL
Client Project Name: 85893
Attention: Jim Lin
2834 North Naomi Street
Burbank, CA 91504-2023

Approved for release on 01/04/2017 by:
Don Burley
Project Manager

ResultLink ▸

Email your PM ▸

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Work Order Number: 16-12-2390

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Work Order Narrative

Work Order: 16-12-2390

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 12/23/16. They were assigned to Work Order 16-12-2390.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Sample Summary

Client:	AETL	Work Order:	16-12-2390
	2834 North Naomi Street	Project Name:	85893
	Burbank, CA 91504-2023	PO Number:	21807-sub
		Date/Time Received:	12/23/16 11:55
		Number of Containers:	15
Attn:	Jim Lin		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
85893.17	16-12-2390-1	12/19/16 00:00	1	Solid
85893.18	16-12-2390-2	12/19/16 09:11	1	Solid
85893.26	16-12-2390-3	12/19/16 13:00	1	Solid
85893.27	16-12-2390-4	12/19/16 13:01	1	Solid
85893.29	16-12-2390-5	12/19/16 09:07	1	Solid
85893.30	16-12-2390-6	12/19/16 09:10	1	Solid
85893.31	16-12-2390-7	12/19/16 09:12	1	Solid
85893.33	16-12-2390-8	12/19/16 13:00	1	Solid
85893.34	16-12-2390-9	12/19/16 13:10	1	Solid
85893.35	16-12-2390-10	12/19/16 13:15	1	Solid
85893.37	16-12-2390-11	12/19/16 15:02	1	Solid
85893.38	16-12-2390-12	12/19/16 15:05	1	Solid
85893.39	16-12-2390-13	12/19/16 15:10	1	Solid
85893.41	16-12-2390-14	12/19/16 15:25	1	Solid
85893.42	16-12-2390-15	12/19/16 15:27	1	Solid

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Analytical Report

AETL
2834 North Naomi Street
Burbank, CA 91504-2023

Date Received: 12/23/16
Work Order: 16-12-2390
Preparation: N/A
Method: ASTM D-2216 (M)
Units: %

Project: 85893

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.17	16-12-2390-1-A	12/19/16 00:00	Solid	N/A	12/28/16	12/28/16 18:00	G1228MOIB2

Parameter	Result	RL	DF	Qualifiers
Moisture	3.3	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.18	16-12-2390-2-A	12/19/16 09:11	Solid	N/A	12/28/16	12/28/16 18:00	G1228MOIB2

Parameter	Result	RL	DF	Qualifiers
Moisture	4.1	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.26	16-12-2390-3-A	12/19/16 13:00	Solid	N/A	12/28/16	12/28/16 18:00	G1228MOIB2

Parameter	Result	RL	DF	Qualifiers
Moisture	4.7	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.27	16-12-2390-4-A	12/19/16 13:01	Solid	N/A	12/28/16	12/28/16 18:00	G1228MOIB2

Parameter	Result	RL	DF	Qualifiers
Moisture	5.2	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.29	16-12-2390-5-A	12/19/16 09:07	Solid	N/A	12/28/16	12/28/16 18:00	G1228MOIB2

Parameter	Result	RL	DF	Qualifiers
Moisture	2.6	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.30	16-12-2390-6-A	12/19/16 09:10	Solid	N/A	12/28/16	12/28/16 18:00	G1228MOIB2

Parameter	Result	RL	DF	Qualifiers
Moisture	2.1	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.31	16-12-2390-7-A	12/19/16 09:12	Solid	N/A	12/28/16	12/28/16 18:00	G1228MOIB2

Parameter	Result	RL	DF	Qualifiers
Moisture	5.0	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.33	16-12-2390-8-A	12/19/16 13:00	Solid	N/A	12/28/16	12/28/16 18:00	G1228MOIB2

Parameter	Result	RL	DF	Qualifiers
Moisture	4.6	0.10	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AETL
2834 North Naomi Street
Burbank, CA 91504-2023

Project: 85893

Date Received: 12/23/16
Work Order: 16-12-2390
Preparation: N/A
Method: ASTM D-2216 (M)
Units: %

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.34	**16-12-2390-9-A**	**12/19/16 13:10**	**Solid**	**N/A**	**12/28/16**	**12/28/16 18:00**	**G1228MOIB2**

Parameter	Result	RL	DF	Qualifiers
Moisture	3.7	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.35	**16-12-2390-10-A**	**12/19/16 13:15**	**Solid**	**N/A**	**12/28/16**	**12/28/16 18:00**	**G1228MOIB2**

Parameter	Result	RL	DF	Qualifiers
Moisture	11	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.37	**16-12-2390-11-A**	**12/19/16 15:02**	**Solid**	**N/A**	**12/28/16**	**12/28/16 18:00**	**G1228MOIB2**

Parameter	Result	RL	DF	Qualifiers
Moisture	4.5	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.38	**16-12-2390-12-A**	**12/19/16 15:05**	**Solid**	**N/A**	**12/28/16**	**12/28/16 18:00**	**G1228MOIB2**

Parameter	Result	RL	DF	Qualifiers
Moisture	6.1	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.39	**16-12-2390-13-A**	**12/19/16 15:10**	**Solid**	**N/A**	**12/28/16**	**12/28/16 18:00**	**G1228MOIB2**

Parameter	Result	RL	DF	Qualifiers
Moisture	4.7	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.41	**16-12-2390-14-A**	**12/19/16 15:25**	**Solid**	**N/A**	**12/28/16**	**12/28/16 18:00**	**G1228MOIB2**

Parameter	Result	RL	DF	Qualifiers
Moisture	5.2	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.42	**16-12-2390-15-A**	**12/19/16 15:27**	**Solid**	**N/A**	**12/28/16**	**12/28/16 18:00**	**G1228MOIB2**

Parameter	Result	RL	DF	Qualifiers
Moisture	5.6	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-014-6594**	**N/A**	**Solid**	**N/A**	**12/28/16**	**12/28/16 18:00**	**G1228MOIB2**

Parameter	Result	RL	DF	Qualifiers
Moisture	ND	0.10	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AETL
2834 North Naomi Street
Burbank, CA 91504-2023

Project: 85893

Date Received: 12/23/16
Work Order: 16-12-2390
Preparation: N/A
Method: EPA 9060A
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.17	16-12-2390-1-A	12/19/16 00:00	Solid	TOC 9	01/03/17	01/03/17 16:11	H0103TOCL1

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.18	16-12-2390-2-A	12/19/16 09:11	Solid	TOC 9	01/03/17	01/03/17 16:11	H0103TOCL1

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.26	16-12-2390-3-A	12/19/16 13:00	Solid	TOC 9	01/03/17	01/03/17 16:11	H0103TOCL1

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.27	16-12-2390-4-A	12/19/16 13:01	Solid	TOC 9	01/03/17	01/03/17 16:11	H0103TOCL1

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.29	16-12-2390-5-A	12/19/16 09:07	Solid	TOC 9	01/03/17	01/03/17 16:11	H0103TOCL1

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.30	16-12-2390-6-A	12/19/16 09:10	Solid	TOC 9	01/03/17	01/03/17 16:11	H0103TOCL1

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.31	16-12-2390-7-A	12/19/16 09:12	Solid	TOC 9	01/03/17	01/03/17 16:11	H0103TOCL1

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.33	16-12-2390-8-A	12/19/16 13:00	Solid	TOC 9	01/03/17	01/03/17 16:11	H0103TOCL1

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AETL	Date Received:	12/23/16
2834 North Naomi Street	Work Order:	16-12-2390
Burbank, CA 91504-2023	Preparation:	N/A
	Method:	EPA 9060A
	Units:	mg/kg
Project: 85893		Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.34	**16-12-2390-9-A**	**12/19/16 13:10**	**Solid**	**TOC 9**	**01/03/17**	**01/03/17 16:11**	**H0103TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.35	**16-12-2390-10-A**	**12/19/16 13:15**	**Solid**	**TOC 9**	**01/03/17**	**01/03/17 16:11**	**H0103TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.37	**16-12-2390-11-A**	**12/19/16 15:02**	**Solid**	**TOC 9**	**01/03/17**	**01/03/17 16:11**	**H0103TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.38	**16-12-2390-12-A**	**12/19/16 15:05**	**Solid**	**TOC 9**	**01/03/17**	**01/03/17 16:11**	**H0103TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.39	**16-12-2390-13-A**	**12/19/16 15:10**	**Solid**	**TOC 9**	**01/03/17**	**01/03/17 16:11**	**H0103TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.41	**16-12-2390-14-A**	**12/19/16 15:25**	**Solid**	**TOC 9**	**01/03/17**	**01/03/17 16:11**	**H0103TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85893.42	**16-12-2390-15-A**	**12/19/16 15:27**	**Solid**	**TOC 9**	**01/03/17**	**01/03/17 16:11**	**H0103TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-06-013-1652**	**N/A**	**Solid**	**TOC 9**	**01/03/17**	**01/03/17 16:11**	**H0103TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

AETL		Date Received:	12/23/16
2834 North Naomi Street		Work Order:	16-12-2390
Burbank, CA 91504-2023		Preparation:	N/A
		Method:	EPA 9060A
Project: 85893			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
85893.17	**Sample**	**Solid**	**TOC 9**	**01/03/17**	**01/03/17 16:11**	**H0103TOCS1**
85893.17	**Matrix Spike**	**Solid**	**TOC 9**	**01/03/17**	**01/03/17 16:11**	**H0103TOCS1**
85893.17	**Matrix Spike Duplicate**	**Solid**	**TOC 9**	**01/03/17**	**01/03/17 16:11**	**H0103TOCS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	ND	30000	31770	106	33360	111	75-125	5	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

AETL		Date Received:	12/23/16
2834 North Naomi Street		Work Order:	16-12-2390
Burbank, CA 91504-2023		Preparation:	N/A
		Method:	ASTM D-2216 (M)
Project: 85893			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
85893.17	**Sample**	**Solid**	**N/A**	**12/28/16 00:00**	**12/28/16 18:00**	**G1228MOID2**
85893.17	**Sample Duplicate**	**Solid**	**N/A**	**12/28/16 00:00**	**12/28/16 18:00**	**G1228MOID2**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Moisture	3.300	3.400	3	0-10	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

AETL
2834 North Naomi Street
Burbank, CA 91504-2023

Project: 85893

Date Received: 12/23/16
Work Order: 16-12-2390
Preparation: N/A
Method: EPA 9060A

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-06-013-1652	LCS	Solid	TOC 9	01/03/17	01/03/17 16:11	H0103TOCL1
099-06-013-1652	LCSD	Solid	TOC 9	01/03/17	01/03/17 16:11	H0103TOCL1

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	6000	6519	109	6792	113	80-120	4	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 16-12-2390 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
ASTM D-2216 (M)	N/A	1009	N/A	1
EPA 9060A	N/A	735	TOC 9	1

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Glossary of Terms and Qualifiers

Work Order: 16-12-2390 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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CHAIN-OF-CUSTODY RECORD

WO NO. / LAB USE ONLY: 16-12-2390

DATE: _____

PAGE: 1 OF 2

LABORATORY CLIENT: ACTL

ADDRESS: 2834 N. Naomi st,

CITY: Burbank STATE: CA ZIP: 91504

TEL: (818)845-8200 E-MAIL:

CLIENT PROJECT NAME / NO.: 855893

P.O. NO.: 21807 -Sub

PROJECT CONTACT: Jim Lin

LAB CONTACT OR QUOTE NO.:

GLOBAL ID: LOG CODE:

SAMPLER(S): (PRINT) CLIENT

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ STANDARD

EDD:
☐ COELT EDF ☐ OTHER

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH _____	BTEX / MTBE ☐ 8260 ☐ _____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	TOC (9060)			
1	855893 - 17	12/19/16		Soil	1x4oz jar																		X			
2	- 18		9:11																				X			
3	- 26		13:00																				X			
4	- 27		13:01																				X			
5	- 29		09:07																				X			
6	- 30		09:10																				X			
7	- 31		09:12																				X			
8	- 33		13:00																				X			
9	- 34		13:10																				X			
10	- 35		13:15																				X			

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 12/23/16	Time: 1135
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

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CHAIN-OF-CUSTODY RECORD

WO NO.: / LAB USE ONLY: 2390

DATE: _____

PAGE: 2 OF 2

LABORATORY CLIENT: AETL

ADDRESS: 2834 N. Naomi st,

CITY: Burbank STATE: CA ZIP: 91504

TEL: (818)845-85200 E-MAIL:

CLIENT PROJECT NAME / NO.: 85893

P.O. NO.: 21807 - Sub

PROJECT CONTACT: Jim Lin

LAB CONTACT OR QUOTE NO.:

GLOBAL ID: LOG CODE: SAMPLER(S): (PRINT)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ STANDARD

EDD:

☐ COELT EDF ☐ OTHER

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH _____	BTEX / MTBE ☐ 8260 ☐ _____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	TOC (9060)			
11	85893 .37	12/19/16	15:02	Soil	1x4oz jar																		X			
12	.38		15:05																				X			
13	.39		15:10																				X			
14	.41		15:25																				X			
15	.42		15:27																				X			

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 12/23/16	Time: 1155
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

2014-07-01 Revision

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WORK ORDER NUMBER: 16-12-0239 (Page 16 of 23)

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: American Environmental Testing laboratory

DATE: 12 / 23 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): 2.5 °C (w/ CF): 2.5 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 1017

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1017

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 426

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☐	☑	☐
☐ Sampling date ☑ Sampling time (-1) ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna_2 ☐ 100PJ ☐ 100PJna_2 ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB ☐ 125PBznna ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 250PB ☐ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☐ 500PB ☑ 1AGB ☐ 1AGBna_2 ☐ 1AGBs ☐ 1PB ☐ 1PBna ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☑ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na_2** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **x** = Na_2SO_3+$NaHSO_4.H_2O$, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 426

Reviewed by: 1052

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Data Qualifiers and Descriptors

Data Qualifier:

#:	Recovery is not within acceptable control limits.
*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

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Ordered By

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016-

Telephone: (626)930-1200
Attention: Michael Van Fleet

Number of Pages	**29**
Date Received	**12/20/2016**
Date Reported	**01/09/2017**

Job Number	Order Date	Client
85894	12/20/2016	CONVRS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

Enclosed please find results of analyses of 13 soil samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Attachment: 13 pages

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.

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CHAIN OF CUSTODY RECORD

COMPANY: Converse Consultants | PHONE: (626) 930-1200
PROJECT MANAGER: Michael Van Fleet | FAX: (626) 930-1212
PROJECT NAME: Pardee - Meadowood | PROJECT #: 02-41-220-05
SITE NAME AND ADDRESS:

AETL JOB No. 85894 | Page 11 of 12

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	Arsenic - 6010	PCBs - 8082	OCPs - 8081	TOC - 9060	TPH - 8015	PAHs - 8310	Lead - 6010	Metals - 6010/7471	VOCs - 8260	TEST INSTRUCTIONS & COMMENTS
	F4-12	85894.01	12-19-16	15:28	Soil	1 sleeve	Ice				X						
2	S1-2	85894.02		15:52		1 sleeve/2 Encore						X			X	X	
3	-4	85894.03		15:53								X			X	X	
4	-6	85894.04		15:54													
5	-8	85894.05		15:55													
6	S2-2	85894.06		16:01								X			X	X	
7	-4	85894.07		16:02								X			X	X	
8	-6	85894.08		16:04													
9	-8	85894.09		16:05													
10	S3-2	85894.10		16:16								X			X	X	
11	-4	85894.11		16:17								X			X	X	
12	-6	85894.12		16:18													
13	-8	85894.13		16:19													
14	S4-2	85894.14		16:22								X			X	X	
15	-4	85894.15	↓	16:23	↓	↓	↓					X			X	X	

ANALYSIS REQUESTED

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	15	PROPERLY COOLED Y / N / NA	
CUSTODY SEALS Y / N / NA		SAMPLES INTACT Y / N / NA	
RECEIVED IN GOOD COND. Y / N		SAMPLES ACCEPTED Y / N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ 24 HRS. ☐ 48 HRS. ☐ 72 HRS.

	1.	2.	3.
RELINQUISHED BY SAMPLER:	Signature:	Signature:	Signature:
	Printed Name: JOHN ZIELKER	Printed Name:	Printed Name: Sarah's P
	Date: 12/20/16 Time: 0915	Date: Time:	Date: 12-20-16 Time: 1022
RECEIVED BY:	Signature:	Signature:	RECEIVED BY LABORATORY: Signature:
	Printed Name: Sarah's P	Printed Name:	Printed Name:
	Date: 12-20-16 Time: 0915	Date: Time:	Date: Time:

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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CHAIN OF CUSTODY RECORD

AETL JOB No. 85894

COMPANY: Converse Consultants
PHONE: (626) 930-1200
PROJECT MANAGER: Michael Van Fleet
FAX: (626) 930-1212
PROJECT NAME: Pardee - Meadowood
PROJECT #: 02-41-220-05
SITE NAME AND ADDRESS:

SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	Arsenic - 6010	PCBs - 8082	OCPs - 8081	TOC - 9060	TPH - 8015	PAHs - 8310	Lead - 6010	Metals - 6010/7471	VOCs - 8260	TEST INSTRUCTIONS & COMMENTS
S4-6	85894.16	12/19/16	16:24	SOIL	1 SLEEVE ENCORE	ICE										
-8	85894.17	"	16:25	"	"	"										
S5-2	85894.18	"	16:30	"	"	"					X			X	X	
S5-4	85894.19	"	16:31	"	"	"					X			X	X	
S5-6	85894.20	"	16:32	"	"	"										
S5-8	85894.21	"	16:33	"	"	"										
S6-2	85894.22	"	16:41	"	"	"					X			X	X	
S6-4	85894.23	"	16:42	"	"	"					X			X	X	
S6-6	85894.24	"	16:43	"	"	"										
S6-8	85894.25	"	16:44	"	"	"										

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	10	PROPERLY COOLED (Y) / N / NA	
CUSTODY SEALS Y / (N) / NA		SAMPLES INTACT (Y) / N / NA	
RECEIVED IN GOOD COND. (Y) / N		SAMPLES ACCEPTED (Y) / N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ 24 HRS. ☐ 48 HRS. ☐ 72 HRS.

	1.	2.	3.
RELINQUISHED BY SAMPLER:	Signature:	RELINQUISHED BY: Signature:	RELINQUISHED BY: Signature:
	Printed Name: JOHN ZIEGLER	Printed Name:	Printed Name: Sarayas P
	Date: 12/20/16 Time: 0915	Date: Time:	Date: 12-20-16 Time: 1055
RECEIVED BY:	Signature:	RECEIVED BY: Signature:	RECEIVED BY LABORATORY: ACTL Signature:
	Printed Name: Sarayas P	Printed Name:	Printed Name:
	Date: 12-20-16 Time: 0915	Date: Time:	Date: 12/20/16 Time: 1030

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Ordered By

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016-

Telephone: (626)930-1200
Attention: Michael Van Fleet

Project ID: 02-41-220-05
Date Received 12/20/2016
Date Reported 01/09/2017

Job Number	Order Date	Client
85894	12/20/2016	CONVRS

CERTIFICATE OF ANALYSIS
CASE NARRATIVE

AETL received 25 samples with the following specification on 12/20/2016.

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
85894.01	F4-12	12/19/2016	Soil	1

Method ^ Submethod	Req Date	Priority	TAT	Units
(9060)	12/27/2016	2	Normal	mg/Kg

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
85894.02	S1-2	12/19/2016	Soil	3
85894.03	S1-4	12/19/2016	Soil	3
85894.06	S2-2	12/19/2016	Soil	3
85894.07	S2-4	12/19/2016	Soil	3
85894.10	S3-2	12/19/2016	Soil	3
85894.11	S3-4	12/19/2016	Soil	3
85894.14	S4-2	12/19/2016	Soil	3
85894.15	S4-4	12/19/2016	Soil	3
85894.18	S5-2	12/19/2016	Soil	3
85894.19	S5-4	12/19/2016	Soil	3
85894.22	S6-2	12/19/2016	Soil	3
85894.23	S6-4	12/19/2016	Soil	3

Method ^ Submethod	Req Date	Priority	TAT	Units
(6010B/7000CAM)	12/27/2016	2	Normal	mg/Kg
(8260B)	12/27/2016	2	Normal	ug/Kg
(M8015D) ^ C13-C40	12/27/2016	2	Normal	mg/Kg
(M8015G)	12/27/2016	2	Normal	mg/Kg

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
85894.04	S1-6	12/19/2016	Soil	3
85894.05	S1-8	12/19/2016	Soil	3
85894.08	S2-6	12/19/2016	Soil	3
85894.09	S2-8	12/19/2016	Soil	3
85894.12	S3-6	12/19/2016	Soil	3

Continued

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Ordered By

Converse Consultants 717 S Myrtle Ave Monrovia, CA 91016-	Project ID: 02-41-220-05 Date Received 12/20/2016 Date Reported 01/09/2017

Telephone: (626)930-1200
Attention: Michael Van Fleet

Job Number	Order Date	Client
85894	12/20/2016	CONVRS

CERTIFICATE OF ANALYSIS

CASE NARRATIVE

85894.13	S3-8	12/19/2016	Soil	3
85894.16	S4-6	12/19/2016	Soil	3
85894.17	S4-8	12/19/2016	Soil	3
85894.20	S5-6	12/19/2016	Soil	3
85894.21	S5-8	12/19/2016	Soil	3
85894.24	S6-6	12/19/2016	Soil	3
85894.25	S6-8	12/19/2016	Soil	3

Method ^ Submethod	Req Date	Priority	TAT	Units
ARCHIVE	12/27/2016	2	Normal	--

The samples were analyzed as specified on the enclosed chain of custody. Analytical non-conformances have been noted on the report.

Unless otherwise noted, all results of soil and solid samples are based on wet weight.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

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ANALYTICAL RESULTS

Ordered By

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Attn: Michael Van Fleet
Page: **2**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (9060), Total Organic Carbon (SW-846)

QC Batch No: G1228TOCL1

Our Lab I.D.			Method Blank	85894.01			
Client Sample I.D.				F4-12			
Date Sampled				12/19/2016			
Date Prepared			12/28/2016	12/28/2016			
Preparation Method			9060	9060			
Date Analyzed			12/28/2016	12/28/2016			
Matrix			Soil	Soil			
Units			mg/Kg	mg/Kg			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Carbon, Total Organic (TOC)	500	500	ND	ND			

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ANALYTICAL RESULTS

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Page: **3**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1221162A1

Our Lab I.D.			Method Blank	85894.02	85894.03	85894.06	85894.07
Client Sample I.D.				S1-2	S1-4	S2-2	S2-4
Date Sampled				12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			12/21/2016	12/19/2016	12/19/2016	12/19/2016	12/19/2016
Preparation Method			5030	5035A	5035A	5035A	5035A
Date Analyzed			12/21/2016	12/21/2016	12/21/2016	12/21/2016	12/21/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Acetone	25	50	ND	ND	ND	ND	ND
Benzene	1.0	10.0	ND	ND	ND	ND	ND
Bromobenzene (Phenyl bromide)	5.0	10.0	ND	ND	ND	ND	ND
Bromochloromethane	5.0	10.0	ND	ND	ND	ND	ND
Bromodichloromethane	5.0	10.0	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	25	50	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	15	30	ND	ND	ND	ND	ND
2-Butanone (MEK)	25	50	ND	ND	ND	ND	ND
n-Butylbenzene	5.0	10.0	ND	ND	ND	ND	ND
sec-Butylbenzene	5.0	10.0	ND	ND	ND	ND	ND
tert-Butylbenzene	5.0	10.0	ND	ND	ND	ND	ND
Carbon Disulfide	25	50	ND	ND	ND	ND	ND
Carbon tetrachloride	5.0	10.0	ND	ND	ND	ND	ND
Chlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
Chloroethane	15	30	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	50	50	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	5.0	10.0	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	15	30	ND	ND	ND	ND	ND
2-Chlorotoluene	5.0	10.0	ND	ND	ND	ND	ND
4-Chlorotoluene	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	25	50	ND	ND	ND	ND	ND
Dibromochloromethane	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	5.0	10.0	ND	ND	ND	ND	ND
Dibromomethane	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	15	30	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1221162A1

Our Lab I.D.			Method Blank	85894.02	85894.03	85894.06	85894.07
Client Sample I.D.				S1-2	S1-4	S2-2	S2-4
Date Sampled				12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			12/21/2016	12/19/2016	12/19/2016	12/19/2016	12/19/2016
Preparation Method			5030	5035A	5035A	5035A	5035A
Date Analyzed			12/21/2016	12/21/2016	12/21/2016	12/21/2016	12/21/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,1-Dichloroethane	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	5.0	10.0	ND	ND	ND	ND	ND
1,1-Dichloroethene	5.0	10.0	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5.0	10.0	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dichloropropane	5.0	10.0	ND	ND	ND	ND	ND
1,3-Dichloropropane	5.0	10.0	ND	ND	ND	ND	ND
2,2-Dichloropropane	5.0	10.0	ND	ND	ND	ND	ND
1,1-Dichloropropene	5.0	10.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5.0	10.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	5.0	10.0	ND	ND	ND	ND	ND
Ethylbenzene	1.0	10.0	ND	ND	ND	ND	ND
Hexachlorobutadiene	15	30	ND	ND	ND	ND	ND
2-Hexanone	25	50	ND	ND	ND	ND	ND
Iodomethane	5.0	10.0	ND	ND	ND	ND	ND
Isopropylbenzene	5.0	10.0	ND	ND	ND	ND	ND
p-Isopropyltoluene	5.0	10.0	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	25	50	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	2.0	10.0	ND	ND	ND	ND	ND
Methylene chloride (DCM)	25	50	ND	ND	ND	ND	ND
Naphthalene	5.0	10.0	ND	ND	ND	ND	ND
n-Propylbenzene	5.0	10.0	ND	ND	ND	ND	ND
Styrene	5.0	10.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	5.0	10.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5.0	10.0	ND	ND	ND	ND	ND
Tetrachloroethene	2.0	10.0	ND	ND	ND	ND	ND
Toluene (Methyl benzene)	1.0	10.0	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5.0	10.0	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5.0	10.0	ND	ND	ND	ND	ND
Trichloroethene	1.5	10.0	ND	ND	ND	ND	ND
Trichlorofluoromethane	5.0	10.0	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5.0	10.0	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1221162A1

Our Lab I.D.			Method Blank	85894.02	85894.03	85894.06	85894.07
Client Sample I.D.				S1-2	S1-4	S2-2	S2-4
Date Sampled				12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			12/21/2016	12/19/2016	12/19/2016	12/19/2016	12/19/2016
Preparation Method			5030	5035A	5035A	5035A	5035A
Date Analyzed			12/21/2016	12/21/2016	12/21/2016	12/21/2016	12/21/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,2,4-Trimethylbenzene	5.0	10.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5.0	10.0	ND	ND	ND	ND	ND
Vinyl Acetate	25	50	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	5.0	10.0	ND	ND	ND	ND	ND
o-Xylene	1.0	10.0	ND	ND	ND	ND	ND
m,p-Xylenes	1.0	20.0	ND	ND	ND	ND	ND
Our Lab I.D.			Method Blank	85894.02	85894.03	85894.06	85894.07
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Bromofluorobenzene	75-125		108	105	102	101	101
Dibromofluoromethane	75-125		119	119	119	120	110
Toluene-d8	75-125		103	101	100	98.3	95.4

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ANALYTICAL RESULTS

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Page: 6

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1221162A1

Our Lab I.D.			85894.10	85894.11	85894.14	85894.15	85894.18
Client Sample I.D.			S3-2	S3-4	S4-2	S4-4	S5-2
Date Sampled			12/19/2016	12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			12/19/2016	12/19/2016	12/19/2016	12/19/2016	12/19/2016
Preparation Method			5035A	5035A	5035A	5035A	5035A
Date Analyzed			12/21/2016	12/22/2016	12/22/2016	12/22/2016	12/22/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Acetone	25	50	ND	ND	ND	ND	ND
Benzene	1.0	10.0	ND	ND	ND	ND	ND
Bromobenzene (Phenyl bromide)	5.0	10.0	ND	ND	ND	ND	ND
Bromochloromethane	5.0	10.0	ND	ND	ND	ND	ND
Bromodichloromethane	5.0	10.0	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	25	50	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	15	30	ND	ND	ND	ND	ND
2-Butanone (MEK)	25	50	ND	ND	ND	ND	ND
n-Butylbenzene	5.0	10.0	ND	ND	ND	ND	ND
sec-Butylbenzene	5.0	10.0	ND	ND	ND	ND	ND
tert-Butylbenzene	5.0	10.0	ND	ND	ND	ND	ND
Carbon Disulfide	25	50	ND	ND	ND	ND	ND
Carbon tetrachloride	5.0	10.0	ND	ND	ND	ND	ND
Chlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
Chloroethane	15	30	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	50	50	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	5.0	10.0	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	15	30	ND	ND	ND	ND	ND
2-Chlorotoluene	5.0	10.0	ND	ND	ND	ND	ND
4-Chlorotoluene	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	25	50	ND	ND	ND	ND	ND
Dibromochloromethane	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	5.0	10.0	ND	ND	ND	ND	ND
Dibromomethane	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	15	30	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1221162A1

Our Lab I.D.			85894.10	85894.11	85894.14	85894.15	85894.18
Client Sample I.D.			S3-2	S3-4	S4-2	S4-4	S5-2
Date Sampled			12/19/2016	12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			12/19/2016	12/19/2016	12/19/2016	12/19/2016	12/19/2016
Preparation Method			5035A	5035A	5035A	5035A	5035A
Date Analyzed			12/21/2016	12/22/2016	12/22/2016	12/22/2016	12/22/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,1-Dichloroethane	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	5.0	10.0	ND	ND	ND	ND	ND
1,1-Dichloroethene	5.0	10.0	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5.0	10.0	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5.0	10.0	ND	ND	ND	ND	ND
1,2-Dichloropropane	5.0	10.0	ND	ND	ND	ND	ND
1,3-Dichloropropane	5.0	10.0	ND	ND	ND	ND	ND
2,2-Dichloropropane	5.0	10.0	ND	ND	ND	ND	ND
1,1-Dichloropropene	5.0	10.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5.0	10.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	5.0	10.0	ND	ND	ND	ND	ND
Ethylbenzene	1.0	10.0	ND	ND	ND	ND	ND
Hexachlorobutadiene	15	30	ND	ND	ND	ND	ND
2-Hexanone	25	50	ND	ND	ND	ND	ND
Iodomethane	5.0	10.0	ND	ND	ND	ND	ND
Isopropylbenzene	5.0	10.0	ND	ND	ND	ND	ND
p-Isopropyltoluene	5.0	10.0	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	25	50	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	2.0	10.0	ND	ND	ND	ND	ND
Methylene chloride (DCM)	25	50	ND	ND	ND	ND	ND
Naphthalene	5.0	10.0	ND	ND	ND	ND	ND
n-Propylbenzene	5.0	10.0	ND	ND	ND	ND	ND
Styrene	5.0	10.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	5.0	10.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5.0	10.0	ND	ND	ND	ND	ND
Tetrachloroethene	2.0	10.0	ND	ND	ND	ND	ND
Toluene (Methyl benzene)	1.0	10.0	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5.0	10.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5.0	10.0	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5.0	10.0	ND	ND	ND	ND	ND
Trichloroethene	1.5	10.0	ND	ND	ND	ND	ND
Trichlorofluoromethane	5.0	10.0	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5.0	10.0	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1221162A1

Our Lab I.D.			85894.10	85894.11	85894.14	85894.15	85894.18
Client Sample I.D.			S3-2	S3-4	S4-2	S4-4	S5-2
Date Sampled			12/19/2016	12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			12/19/2016	12/19/2016	12/19/2016	12/19/2016	12/19/2016
Preparation Method			5035A	5035A	5035A	5035A	5035A
Date Analyzed			12/21/2016	12/22/2016	12/22/2016	12/22/2016	12/22/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
1,2,4-Trimethylbenzene	5.0	10.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5.0	10.0	ND	ND	ND	ND	ND
Vinyl Acetate	25	50	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	5.0	10.0	ND	ND	ND	ND	ND
o-Xylene	1.0	10.0	ND	ND	ND	ND	ND
m,p-Xylenes	1.0	20.0	ND	ND	ND	ND	ND
Our Lab I.D.			85894.10	85894.11	85894.14	85894.15	85894.18
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Bromofluorobenzene	75-125		107	105	103	87.6	105
Dibromofluoromethane	75-125		114	104	115	117	115
Toluene-d8	75-125		98.2	98.6	99.8	101	100

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1221162A1

Our Lab I.D.			85894.19	85894.22	85894.23		
Client Sample I.D.			S5-4	S6-2	S6-4		
Date Sampled			12/19/2016	12/19/2016	12/19/2016		
Date Prepared			12/19/2016	12/19/2016	12/19/2016		
Preparation Method			5035A	5035A	5035A		
Date Analyzed			12/22/2016	12/22/2016	12/22/2016		
Matrix			Soil	Soil	Soil		
Units			ug/Kg	ug/Kg	ug/Kg		
Dilution Factor			1	1	1		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
Acetone	25	50	ND	ND	ND		
Benzene	1.0	10.0	ND	ND	ND		
Bromobenzene (Phenyl bromide)	5.0	10.0	ND	ND	ND		
Bromochloromethane	5.0	10.0	ND	ND	ND		
Bromodichloromethane	5.0	10.0	ND	ND	ND		
Bromoform (Tribromomethane)	25	50	ND	ND	ND		
Bromomethane (Methyl bromide)	15	30	ND	ND	ND		
2-Butanone (MEK)	25	50	ND	ND	ND		
n-Butylbenzene	5.0	10.0	ND	ND	ND		
sec-Butylbenzene	5.0	10.0	ND	ND	ND		
tert-Butylbenzene	5.0	10.0	ND	ND	ND		
Carbon Disulfide	25	50	ND	ND	ND		
Carbon tetrachloride	5.0	10.0	ND	ND	ND		
Chlorobenzene	5.0	10.0	ND	ND	ND		
Chloroethane	15	30	ND	ND	ND		
2-Chloroethyl vinyl ether	50	50	ND	ND	ND		
Chloroform (Trichloromethane)	5.0	10.0	ND	ND	ND		
Chloromethane (Methyl chloride)	15	30	ND	ND	ND		
2-Chlorotoluene	5.0	10.0	ND	ND	ND		
4-Chlorotoluene	5.0	10.0	ND	ND	ND		
1,2-Dibromo-3-chloropropane (DBCP)	25	50	ND	ND	ND		
Dibromochloromethane	5.0	10.0	ND	ND	ND		
1,2-Dibromoethane (EDB)	5.0	10.0	ND	ND	ND		
Dibromomethane	5.0	10.0	ND	ND	ND		
1,2-Dichlorobenzene	5.0	10.0	ND	ND	ND		
1,3-Dichlorobenzene	5.0	10.0	ND	ND	ND		
1,4-Dichlorobenzene	5.0	10.0	ND	ND	ND		
Dichlorodifluoromethane	15	30	ND	ND	ND		

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ANALYTICAL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1221162A1

Our Lab I.D.			85894.19	85894.22	85894.23		
Client Sample I.D.			S5-4	S6-2	S6-4		
Date Sampled			12/19/2016	12/19/2016	12/19/2016		
Date Prepared			12/19/2016	12/19/2016	12/19/2016		
Preparation Method			5035A	5035A	5035A		
Date Analyzed			12/22/2016	12/22/2016	12/22/2016		
Matrix			Soil	Soil	Soil		
Units			ug/Kg	ug/Kg	ug/Kg		
Dilution Factor			1	1	1		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
1,1-Dichloroethane	5.0	10.0	ND	ND	ND		
1,2-Dichloroethane (EDC)	5.0	10.0	ND	ND	ND		
1,1-Dichloroethene	5.0	10.0	ND	ND	ND		
cis-1,2-Dichloroethene	5.0	10.0	ND	ND	ND		
trans-1,2-Dichloroethene	5.0	10.0	ND	ND	ND		
1,2-Dichloropropane	5.0	10.0	ND	ND	ND		
1,3-Dichloropropane	5.0	10.0	ND	ND	ND		
2,2-Dichloropropane	5.0	10.0	ND	ND	ND		
1,1-Dichloropropene	5.0	10.0	ND	ND	ND		
cis-1,3-Dichloropropene	5.0	10.0	ND	ND	ND		
trans-1,3-Dichloropropene	5.0	10.0	ND	ND	ND		
Ethylbenzene	1.0	10.0	ND	ND	ND		
Hexachlorobutadiene	15	30	ND	ND	ND		
2-Hexanone	25	50	ND	ND	ND		
Iodomethane	5.0	10.0	ND	ND	ND		
Isopropylbenzene	5.0	10.0	ND	ND	ND		
p-Isopropyltoluene	5.0	10.0	ND	ND	ND		
4-Methyl-2-pentanone (MIBK)	25	50	ND	ND	ND		
Methyl-tert-butyl ether (MTBE)	2.0	10.0	ND	ND	ND		
Methylene chloride (DCM)	25	50	ND	ND	ND		
Naphthalene	5.0	10.0	ND	ND	ND		
n-Propylbenzene	5.0	10.0	ND	ND	ND		
Styrene	5.0	10.0	ND	ND	ND		
1,1,1,2-Tetrachloroethane	5.0	10.0	ND	ND	ND		
1,1,2,2-Tetrachloroethane	5.0	10.0	ND	ND	ND		
Tetrachloroethene	2.0	10.0	ND	ND	ND		
Toluene (Methyl benzene)	1.0	10.0	ND	ND	ND		
1,2,3-Trichlorobenzene	5.0	10.0	ND	ND	ND		
1,2,4-Trichlorobenzene	5.0	10.0	ND	ND	ND		
1,1,1-Trichloroethane	5.0	10.0	ND	ND	ND		
1,1,2-Trichloroethane	5.0	10.0	ND	ND	ND		
Trichloroethene	1.5	10.0	ND	ND	ND		
Trichlorofluoromethane	5.0	10.0	ND	ND	ND		
1,2,3-Trichloropropane	5.0	10.0	ND	ND	ND		

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1221162A1

Our Lab I.D.			85894.19	85894.22	85894.23		
Client Sample I.D.			S5-4	S6-2	S6-4		
Date Sampled			12/19/2016	12/19/2016	12/19/2016		
Date Prepared			12/19/2016	12/19/2016	12/19/2016		
Preparation Method			5035A	5035A	5035A		
Date Analyzed			12/22/2016	12/22/2016	12/22/2016		
Matrix			Soil	Soil	Soil		
Units			ug/Kg	ug/Kg	ug/Kg		
Dilution Factor			1	1	1		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
1,2,4-Trimethylbenzene	5.0	10.0	ND	ND	ND		
1,3,5-Trimethylbenzene	5.0	10.0	ND	ND	ND		
Vinyl Acetate	25	50	ND	ND	ND		
Vinyl chloride (Chloroethene)	5.0	10.0	ND	ND	ND		
o-Xylene	1.0	10.0	ND	ND	ND		
m,p-Xylenes	1.0	20.0	ND	ND	ND		
Our Lab I.D.			85894.19	85894.22	85894.23		
Surrogates	%Rec.Limit		% Rec.	% Rec.	% Rec.		
Bromofluorobenzene	75-125		102	85.2	104		
Dibromofluoromethane	75-125		117	114	118		
Toluene-d8	75-125		101	99.3	99.2		

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 122116OB2

Our Lab I.D.			Method Blank	85894.02	85894.03	85894.06	85894.07
Client Sample I.D.				S1-2	S1-4	S2-2	S2-4
Date Sampled				12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			12/21/2016	12/19/2016	12/19/2016	12/19/2016	12/19/2016
Preparation Method			5030	5035A	5035A	5035A	5035A
Date Analyzed			12/21/2016	12/22/2016	12/22/2016	12/22/2016	12/22/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
TPH as Gasoline and Light HC. (C4-C12)	0.100	1.000	ND	ND	ND	ND	ND
Our Lab I.D.			Method Blank	85894.02	85894.03	85894.06	85894.07
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Bromofluorobenzene	75-125		96.0	92.8	95.0	98.2	94.8

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 122116OB2

Our Lab I.D.			85894.10	85894.11	85894.14	85894.15	85894.18
Client Sample I.D.			S3-2	S3-4	S4-2	S4-4	S5-2
Date Sampled			12/19/2016	12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			12/19/2016	12/19/2016	12/19/2016	12/19/2016	12/19/2016
Preparation Method			5035A	5035A	5035A	5035A	5035A
Date Analyzed			12/22/2016	12/22/2016	12/22/2016	12/22/2016	12/22/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
TPH as Gasoline and Light HC. (C4-C12)	0.100	1.000	ND	ND	ND	ND	ND
Our Lab I.D.			**85894.10**	**85894.11**	**85894.14**	**85894.15**	**85894.18**
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Bromofluorobenzene	75-125		98.0	96.2	98.6	98.8	97.2

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 122116OB2

Our Lab I.D.			85894.19	85894.22	85894.23		
Client Sample I.D.			S5-4	S6-2	S6-4		
Date Sampled			12/19/2016	12/19/2016	12/19/2016		
Date Prepared			12/19/2016	12/19/2016	12/19/2016		
Preparation Method			5035A	5035A	5035A		
Date Analyzed			12/22/2016	12/22/2016	12/22/2016		
Matrix			Soil	Soil	Soil		
Units			mg/Kg	mg/Kg	mg/Kg		
Dilution Factor			1	1	1		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
TPH as Gasoline and Light HC. (C4-C12)	0.100	1.000	ND	ND	ND		
Our Lab I.D.			85894.19	85894.22	85894.23		
Surrogates	%Rec.Limit		% Rec.	% Rec.	% Rec.		
Bromofluorobenzene	75-125		100	100	98.4		

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 122116PB1

Our Lab I.D.			Method Blank	85894.02	85894.03	85894.06	85894.07
Client Sample I.D.				S1-2	S1-4	S2-2	S2-4
Date Sampled				12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			12/21/2016	12/21/2016	12/21/2016	12/21/2016	12/21/2016
Preparation Method			3550B	3550B	3550B	3550B	3550B
Date Analyzed			12/21/2016	12/21/2016	12/21/2016	12/21/2016	12/21/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
TPH as Diesel (C13-C22)	1.0	5.0	ND	ND	ND	ND	ND
TPH as Heavy Hydrocarbons (C23-C40)	1.0	5.0	ND	ND	ND	ND	ND
TPH Total as Diesel and Heavy HC.C13-C40	1.0	5.0	ND	ND	ND	ND	ND
Our Lab I.D.			Method Blank	85894.02	85894.03	85894.06	85894.07
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Chlorobenzene	75-125		104	91.8	103	103	108

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 122116PB1

Our Lab I.D.			85894.10	85894.11	85894.14	85894.15	85894.18
Client Sample I.D.			S3-2	S3-4	S4-2	S4-4	S5-2
Date Sampled			12/19/2016	12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			12/21/2016	12/21/2016	12/21/2016	12/21/2016	12/21/2016
Preparation Method			3550B	3550B	3550B	3550B	3550B
Date Analyzed			12/21/2016	12/21/2016	12/21/2016	12/22/2016	12/22/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
TPH as Diesel (C13-C22)	1.0	5.0	ND	ND	ND	ND	ND
TPH as Heavy Hydrocarbons (C23-C40)	1.0	5.0	ND	ND	ND	ND	52.2
TPH Total as Diesel and Heavy HC.C13-C40	1.0	5.0	ND	ND	ND	ND	52.2
Our Lab I.D.			85894.10	85894.11	85894.14	85894.15	85894.18
Surrogates	%Rec.Limit		% Rec.	% Rec.	% Rec.	% Rec.	% Rec.
Chlorobenzene	75-125		108	107	102	103	101

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 122116PB1

Our Lab I.D.			85894.19	85894.22	85894.23		
Client Sample I.D.			S5-4	S6-2	S6-4		
Date Sampled			12/19/2016	12/19/2016	12/19/2016		
Date Prepared			12/21/2016	12/21/2016	12/21/2016		
Preparation Method			3550B	3550B	3550B		
Date Analyzed			12/22/2016	12/22/2016	12/22/2016		
Matrix			Soil	Soil	Soil		
Units			mg/Kg	mg/Kg	mg/Kg		
Dilution Factor			1	1	1		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
TPH as Diesel (C13-C22)	1.0	5.0	ND	ND	ND		
TPH as Heavy Hydrocarbons (C23-C40)	1.0	5.0	ND	ND	ND		
TPH Total as Diesel and Heavy HC.C13-C40	1.0	5.0	ND	ND	ND		
Our Lab I.D.			85894.19	85894.22	85894.23		
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**		
Chlorobenzene	75-125		102	101	95.0		

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1222162C3

Our Lab I.D.			Method Blank	85894.02	85894.03	85894.06	85894.07
Client Sample I.D.				S1-2	S1-4	S2-2	S2-4
Date Sampled				12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			12/22/2016	12/22/2016	12/22/2016	12/22/2016	12/22/2016
Preparation Method			3050B	3050B	3050B	3050B	3050B
Date Analyzed			12/23/2016	12/23/2016	12/23/2016	12/23/2016	12/23/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Antimony	1.0	5.0	ND	ND	ND	ND	ND
Arsenic	1.0	5.0	ND	2.00J	2.26J	2.15J	1.42J
Barium	2.5	5.0	ND	85.7	83.9	84.3	90.4
Beryllium	1.3	2.5	ND	ND	ND	ND	ND
Cadmium	1.3	2.5	ND	ND	ND	ND	ND
Chromium	2.5	5.0	ND	5.97	6.94	6.46	4.32J
Cobalt	2.5	5.0	ND	6.51	5.60	6.35	7.00
Copper	2.5	5.0	ND	8.18	5.77	7.31	5.19
Lead	2.5	5.0	ND	ND	ND	ND	ND
Mercury (By EPA 7471)	0.1	0.2	ND	ND	ND	ND	ND
Molybdenum	2.5	5.0	ND	ND	ND	ND	ND
Nickel	2.5	5.0	ND	2.52J	ND	ND	ND
Selenium	1.0	5.0	ND	ND	ND	ND	ND
Silver	2.5	5.0	ND	ND	ND	ND	ND
Thallium	1.0	5.0	ND	ND	ND	ND	ND
Vanadium	2.5	5.0	ND	41.9	39.5	45.9	43.4
Zinc	2.5	5.0	ND	36.5	32.4	33.8	35.8

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1222162C3

Our Lab I.D.			85894.10	85894.11	85894.14	85894.15	85894.18
Client Sample I.D.			S3-2	S3-4	S4-2	S4-4	S5-2
Date Sampled			12/19/2016	12/19/2016	12/19/2016	12/19/2016	12/19/2016
Date Prepared			12/22/2016	12/22/2016	12/22/2016	12/22/2016	12/22/2016
Preparation Method			3050B	3050B	3050B	3050B	3050B
Date Analyzed			12/23/2016	12/23/2016	12/23/2016	12/23/2016	12/23/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Antimony	1.0	5.0	ND	ND	ND	ND	ND
Arsenic	1.0	5.0	2.10J	2.18J	2.02J	1.83J	1.82J
Barium	2.5	5.0	142	79.7	89.1	64.2	81.5
Beryllium	1.3	2.5	ND	ND	ND	ND	ND
Cadmium	1.3	2.5	ND	ND	ND	ND	ND
Chromium	2.5	5.0	7.87	6.33	7.46	10.0	8.59
Cobalt	2.5	5.0	6.28	6.93	6.28	5.57	6.54
Copper	2.5	5.0	7.57	7.37	7.78	8.85	8.46
Lead	2.5	5.0	ND	ND	ND	ND	ND
Mercury (By EPA 7471)	0.1	0.2	ND	ND	ND	ND	ND
Molybdenum	2.5	5.0	ND	ND	ND	ND	ND
Nickel	2.5	5.0	2.64J	2.69J	2.75J	2.97J	3.10J
Selenium	1.0	5.0	ND	ND	ND	ND	ND
Silver	2.5	5.0	ND	ND	ND	ND	ND
Thallium	1.0	5.0	ND	ND	ND	ND	ND
Vanadium	2.5	5.0	45.3	45.4	42.6	39.6	41.5
Zinc	2.5	5.0	33.6	35.5	35.2	26.4	33.8

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1222162C3

Our Lab I.D.			85894.19				
Client Sample I.D.			S5-4				
Date Sampled			12/19/2016				
Date Prepared			12/22/2016				
Preparation Method			3050B				
Date Analyzed			12/23/2016				
Matrix			Soil				
Units			mg/Kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Antimony	1.0	5.0	ND				
Arsenic	1.0	5.0	1.39J				
Barium	2.5	5.0	52.9				
Beryllium	1.3	2.5	ND				
Cadmium	1.3	2.5	ND				
Chromium	2.5	5.0	8.52				
Cobalt	2.5	5.0	5.27				
Copper	2.5	5.0	8.12				
Lead	2.5	5.0	ND				
Mercury (By EPA 7471)	0.1	0.2	ND				
Molybdenum	2.5	5.0	ND				
Nickel	2.5	5.0	2.88J				
Selenium	1.0	5.0	ND				
Silver	2.5	5.0	ND				
Thallium	1.0	5.0	ND				
Vanadium	2.5	5.0	35.9				
Zinc	2.5	5.0	25.0				

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1222162C4

Our Lab I.D.			Method Blank	85894.22	85894.23		
Client Sample I.D.				S6-2	S6-4		
Date Sampled				12/19/2016	12/19/2016		
Date Prepared			12/22/2016	12/22/2016	12/22/2016		
Preparation Method			3050B	3050B	3050B		
Date Analyzed			12/23/2016	12/23/2016	12/23/2016		
Matrix			Soil	Soil	Soil		
Units			mg/Kg	mg/Kg	mg/Kg		
Dilution Factor			1	1	1		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
Antimony	1.0	5.0	ND	ND	ND		
Arsenic	1.0	5.0	ND	1.53J	ND		
Barium	2.5	5.0	ND	100	82.5		
Beryllium	1.3	2.5	ND	ND	ND		
Cadmium	1.3	2.5	ND	ND	ND		
Chromium	2.5	5.0	ND	5.46	11.2		
Cobalt	2.5	5.0	ND	6.48	7.08		
Copper	2.5	5.0	ND	6.11	14.4		
Lead	2.5	5.0	ND	ND	ND		
Mercury (By EPA 7471)	0.1	0.2	ND	ND	ND		
Molybdenum	2.5	5.0	ND	ND	ND		
Nickel	2.5	5.0	ND	ND	3.97J		
Selenium	1.0	5.0	ND	ND	ND		
Silver	2.5	5.0	ND	ND	ND		
Thallium	1.0	5.0	ND	ND	ND		
Vanadium	2.5	5.0	ND	43.3	43.9		
Zinc	2.5	5.0	ND	39.4	31.9		

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1222162C3; Dup or Spiked Sample: 85894.02; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/23/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Antimony	0.00	50.0	40.3	80.6	50.0	39.9	79.8	<1	75-125	<15
Arsenic	2.00	50.0	43.8	83.6	50.0	44.1	84.2	<1	75-125	<15
Barium	85.7	50.0	127	82.6	50.0	125	78.6	4.96	75-125	<15
Beryllium	0.00	50.0	46.4	92.8	50.0	46.4	92.8	<1	75-125	<15
Cadmium	0.00	50.0	40.6	81.2	50.0	40.1	80.2	1.24	75-125	<15
Chromium	5.97	50.0	47.5	83.1	50.0	47.5	83.1	<1	75-125	<15
Cobalt	6.51	50.0	45.6	78.2	50.0	45.6	78.2	<1	75-125	<15
Copper	8.18	50.0	52.6	88.8	50.0	51.7	87.0	2.05	75-125	<15
Lead	0.00	50.0	37.0 M	74.0	50.0	37.3 M	74.6	<1	75-125	<15
Mercury (By EPA 7471)	0.00	0.500	0.530	106	0.500	0.530	106	<1	75-125	<15
Molybdenum	0.00	50.0	41.9	83.8	50.0	42.1	84.2	<1	75-125	<15
Nickel	2.52	50.0	41.5	78.0	50.0	41.5	78.0	<1	75-125	<15
Selenium	0.00	50.0	34.8 M	69.6	50.0	34.1 M	68.2	2.03	75-125	<15
Silver	0.00	50.0	40.5	81.0	50.0	39.9	79.8	1.49	75-125	<15
Thallium	0.00	50.0	31.0 M	62.0	50.0	31.1 M	62.2	<1	75-125	<15
Vanadium	41.9	50.0	83.5	83.2	50.0	82.6	81.4	2.19	75-125	<15
Zinc	36.5	50.0	78.5	84.0	50.0	77.4	81.8	2.65	75-125	<15

QC Batch No: 1222162C3; Dup or Spiked Sample: 85894.02; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/23/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Antimony	50.0	43.6	87.2	50.0	44.6	89.2	2.27	75-125	<15	
Arsenic	50.0	46.9	93.8	50.0	47.4	94.8	1.06	75-125	<15	
Barium	50.0	46.4	92.8	50.0	46.6	93.2	<1	75-125	<15	
Beryllium	50.0	50.8	102	50.0	51.5	103	<1	75-125	<15	
Cadmium	50.0	45.0	90.0	50.0	45.3	90.6	<1	75-125	<15	
Chromium	50.0	44.7	89.4	50.0	45.0	90.0	<1	75-125	<15	
Cobalt	50.0	43.0	86.0	50.0	43.1	86.2	<1	75-125	<15	
Copper	50.0	43.4	86.8	50.0	43.6	87.2	<1	75-125	<15	
Lead	50.0	43.3	86.6	50.0	43.2	86.4	<1	75-125	<15	
Mercury (By EPA 7471)	0.500	0.520	104	0.500	0.530	106	1.9	75-125	<15	

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QUALITY CONTROL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1222162C3; Dup or Spiked Sample: 85894.02; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/23/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Molybdenum	50.0	46.3	92.6	50.0	46.1	92.2	<1	75-125	<15	
Nickel	50.0	42.8	85.6	50.0	42.9	85.8	<1	75-125	<15	
Selenium	50.0	47.1	94.2	50.0	47.1	94.2	<1	75-125	<15	
Silver	50.0	43.7	87.4	50.0	43.3	86.6	<1	75-125	<15	
Thallium	50.0	41.3	82.6	50.0	41.1	82.2	<1	75-125	<15	
Vanadium	50.0	46.3	92.6	50.0	46.5	93.0	<1	75-125	<15	
Zinc	50.0	48.0	96.0	50.0	48.3	96.6	<1	75-125	<15	

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1222162C4; Dup or Spiked Sample: 85894.22; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/23/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Antimony	0.00	50.0	40.9	81.8	50.0	40.4	80.8	1.23	75-125	<15
Arsenic	1.53	50.0	44.8	86.5	50.0	43.7	84.3	2.58	75-125	<15
Barium	100	50.0	129 M	58.0	50.0	131 M	62.0	6.67	75-125	<15
Beryllium	0.00	50.0	46.9	93.8	50.0	46.8	93.6	<1	75-125	<15
Cadmium	0.00	50.0	40.8	81.6	50.0	41.2	82.4	<1	75-125	<15
Chromium	5.46	50.0	47.9	84.9	50.0	47.7	84.5	<1	75-125	<15
Cobalt	6.48	50.0	46.2	79.4	50.0	46.2	79.4	<1	75-125	<15
Copper	6.11	50.0	51.1	90.0	50.0	51.6	91.0	1.10	75-125	<15
Lead	0.00	50.0	38.0	76.0	50.0	37.7	75.4	<1	75-125	<15
Mercury (By EPA 7471)	0.00	0.500	0.520	104	0.500	0.545	109	4.7	75-125	<15
Molybdenum	0.00	50.0	42.8	85.6	50.0	42.3	84.6	1.18	75-125	<15
Nickel	0.00	50.0	41.4	82.8	50.0	41.5	83.0	<1	75-125	<15
Selenium	0.00	50.0	34.9 M	69.8	50.0	34.1 M	68.2	2.32	75-125	<15
Silver	0.00	50.0	40.5	81.0	50.0	40.9	81.8	<1	75-125	<15
Thallium	0.00	50.0	31.6 M	63.2	50.0	31.4 M	62.8	<1	75-125	<15
Vanadium	43.3	50.0	85.5	84.4	50.0	86.4	86.2	2.11	75-125	<15
Zinc	39.4	50.0	78.7	78.6	50.0	79.5	80.2	2.02	75-125	<15

QC Batch No: 1222162C4; Dup or Spiked Sample: 85894.22; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/23/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Antimony	50.0	42.6	85.2	50.0	43.3	86.6	1.63	75-125	<15	
Arsenic	50.0	46.0	92.0	50.0	46.6	93.2	1.30	75-125	<15	
Barium	50.0	45.8	91.6	50.0	45.8	91.6	<1	75-125	<15	
Beryllium	50.0	50.9	102	50.0	50.6	101	<1	75-125	<15	
Cadmium	50.0	44.2	88.4	50.0	44.2	88.4	<1	75-125	<15	
Chromium	50.0	44.3	88.6	50.0	44.1	88.2	<1	75-125	<15	
Cobalt	50.0	42.3	84.6	50.0	42.4	84.8	<1	75-125	<15	
Copper	50.0	42.9	85.8	50.0	42.8	85.6	<1	75-125	<15	
Lead	50.0	42.4	84.8	50.0	42.4	84.8	<1	75-125	<15	
Mercury (By EPA 7471)	0.500	0.520	104	0.500	0.530	106	1.9	75-125	<15	

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QUALITY CONTROL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1222162C4; Dup or Spiked Sample: 85894.22; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/23/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Molybdenum	50.0	45.5	91.0	50.0	45.5	91.0	<1	75-125	<15	
Nickel	50.0	42.3	84.6	50.0	42.3	84.6	<1	75-125	<15	
Selenium	50.0	45.8	91.6	50.0	46.0	92.0	<1	75-125	<15	
Silver	50.0	42.4	84.8	50.0	42.7	85.4	<1	75-125	<15	
Thallium	50.0	40.5	81.0	50.0	40.6	81.2	<1	75-125	<15	
Vanadium	50.0	45.6	91.2	50.0	45.6	91.2	<1	75-125	<15	
Zinc	50.0	47.5	95.0	50.0	47.5	95.0	<1	75-125	<15	

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (8260B), Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1221162A1; Dup or Spiked Sample: 85894.02; LCS: Clean Sand; QC Prepared: 12/21/2016;MS Analyzed: 12/22/2016; LCS Analyzed: 12/21/2016; Units: ug/Kg

Analytes	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit	
Benzene	50.0	43.0	86.0	50.0	44.4	88.8	3.20	75-125	<20	
Chlorobenzene	50.0	46.1	92.2	50.0	48.3	96.6	4.66	75-125	<20	
1,1-Dichloroethene	50.0	47.3	94.6	50.0	49.1	98.2	3.73	75-125	<20	
Methyl-tert-butyl ether (MTBE)	50.0	45.0	90.0	50.0	47.8	95.6	6.03	75-125	<20	
Toluene (Methyl benzene)	50.0	44.3	88.6	50.0	46.0	92.0	3.77	75-125	<20	
Trichloroethene	50.0	47.5	95.0	50.0	48.2	96.4	1.46	75-125	<20	
Surrogates										
Bromofluorobenzene	50.0	48.9	97.8	50.0	50.0	100	2.25	75-125	<20	
Dibromofluoromethane	50.0	48.8	97.5	50.0	48.1	96.1	1.44	75-125	<20	
Toluene-d8	50.0	47.4	94.8	50.0	47.6	95.3	<1	75-125	<20	

QC Batch No: 1221162A1; Dup or Spiked Sample: 85894.02; LCS: Clean Sand; QC Prepared: 12/21/2016;MS Analyzed: 12/22/2016; LCS Analyzed: 12/21/2016; Units: ug/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Benzene	50.0	43.0	86.0	50.0	52.0	104	18.9	75-125	<20	
Chlorobenzene	50.0	46.0	92.0	50.0	52.4	105	13.2	75-125	<20	
1,1-Dichloroethene	50.0	47.6	95.2	50.0	52.1	104	8.84	75-125	<20	
Methyl-tert-butyl ether (MTBE)	50.0	49.1	98.2	50.0	54.0	108	9.51	75-125	<20	
Toluene (Methyl benzene)	50.0	51.8	104	50.0	51.0	102	1.94	75-125	<20	
Trichloroethene	50.0	45.9	91.7	50.0	49.5	99.1	7.76	75-125	<20	
LCS										
Chloroform (Trichloromethane)	50.0	52.9	106	50.0	55.6	111	4.61	75-125	<20	
Ethylbenzene	50.0	48.1	96.1	50.0	58.5	117	19.6	75-125	<20	
1,1,1-Trichloroethane	50.0	46.3	92.7	50.0	52.8	106	13.4	75-125	<20	
o-Xylene	50.0	48.0	95.9	50.0	54.9	110	13.7	75-125	<20	
m,p-Xylenes	100	106	106	100	113	113	6.39	75-125	<20	
Surrogates										
Bromofluorobenzene	50.0	56.5	113	50.0	49.6	99.1	12.3	75-125	<20	
Dibromofluoromethane	50.0	46.6	93.1	50.0	47.3	94.7	1.72	75-125	<20	
Toluene-d8	50.0	52.7	105	50.0	47.8	95.5	9.05	75-125	<20	

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QUALITY CONTROL RESULTS

Ordered By

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016-

Telephone: (626)930-1200
Attn: Michael Van Fleet
Page: **27**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (9060), Total Organic Carbon (SW-846)

QC Batch No: G1228TOCL1; Dup or Spiked Sample: 85891.20; LCS: Clean Sand; QC Prepared: 12/28/2016; QC Analyzed: 12/28/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Carbon, Total Organic (TOC)	2,670	30,000	29,400	98.0	30,000	27,900	93.0	5.2	75-125	<25

QC Batch No: G1228TOCL1; Dup or Spiked Sample: 85891.20; LCS: Clean Sand; QC Prepared: 12/28/2016; QC Analyzed: 12/28/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Carbon, Total Organic (TOC)	6,000	6,240	104	6,000	6,180	103	<1	80-120	<20	

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Monrovia, CA 91016-

Telephone: (626)930-1200
Attn: Michael Van Fleet
Page: **28**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 122116PB1; Dup or Spiked Sample: 85893.12; LCS: Clean Sand; QC Prepared: 12/21/2016; QC Analyzed: 12/21/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
TPH as Diesel (C13-C22)	0.00	500	508	102	500	500	100	1.98	75-125	<20
Surrogates										
Chlorobenzene	0.00	100	103	103	100	103	103	<1	75-125	<20

QC Batch No: 122116PB1; Dup or Spiked Sample: 85893.12; LCS: Clean Sand; QC Prepared: 12/21/2016; QC Analyzed: 12/21/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
TPH as Diesel (C13-C22)	500	497	99.4	500	496	99.2	<1	75-125	<20	
Surrogates										
Chlorobenzene	100	98.3	98.3	100	98.1	98.1	<1	75-125	<20	

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QUALITY CONTROL RESULTS

Ordered By

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016-

Telephone: (626)930-1200
Attn: Michael Van Fleet
Page: **29**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85894	12/20/2016	CONVRS

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 122116OB2; Dup or Spiked Sample: 85894.02AGA; LCS: Clean Sand; QC Prepared: 12/21/2016;MS Analyzed: 12/22/2016; LCS Analyzed: 12/21/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
TPH as Gasoline and Light HC. (C4-C12)	0.00	1.00	0.810	80.6	1.00	0.820	81.6	1.23	75-125	<20
Surrogates										
Bromofluorobenzene	0.00	0.0500	0.0472	94.4	0.0500	0.0487	97.4	3.18	75-125	<20

QC Batch No: 122116OB2; Dup or Spiked Sample: 85894.02AGA; LCS: Clean Sand; QC Prepared: 12/21/2016;MS Analyzed: 12/22/2016; LCS Analyzed: 12/21/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
TPH as Gasoline and Light HC. (C4-C12)	1.00	0.820	81.8	1.00	0.870	87.3	6.51	75-125	<20	
Surrogates										
Bromofluorobenzene	0.0500	0.0480	96.0	0.0500	0.0476	95.2	<1	75-125	<20	

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WORK ORDER NUMBER: 16-12-2389

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For
Client: AETL
Client Project Name: 85894
Attention: Jim Lin
2834 North Naomi Street
Burbank, CA 91504-2023

Approved for release on 01/04/2017 by:
Don Burley
Project Manager

ResultLink ▸

Email your PM ▸

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Work Order Number: 16-12-2389

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Work Order Narrative

Work Order: 16-12-2389 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 12/23/16. They were assigned to Work Order 16-12-2389.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Sample Summary

Client:	AETL	Work Order:	16-12-2389
	2834 North Naomi Street	Project Name:	85894
	Burbank, CA 91504-2023	PO Number:	21808-sub
		Date/Time Received:	12/23/16 11:55
		Number of Containers:	1
Attn:	Jim Lin		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
85894.01	16-12-2389-1	12/19/16 15:28	1	Solid

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Analytical Report

AETL		Date Received:	12/23/16
2834 North Naomi Street		Work Order:	16-12-2389
Burbank, CA 91504-2023		Preparation:	N/A
		Method:	ASTM D-2216 (M)
		Units:	%
Project: 85894			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85894.01	**16-12-2389-1-A**	**12/19/16 15:28**	**Solid**	**N/A**	**12/27/16**	**12/27/16 18:00**	**G1227MOIB2**

Parameter	Result	RL	DF	Qualifiers
Moisture	3.8	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-014-6592**	**N/A**	**Solid**	**N/A**	**12/27/16**	**12/27/16 18:00**	**G1227MOIB2**

Parameter	Result	RL	DF	Qualifiers
Moisture	ND	0.10	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AETL		Date Received:	12/23/16
2834 North Naomi Street		Work Order:	16-12-2389
Burbank, CA 91504-2023		Preparation:	N/A
		Method:	EPA 9060A
		Units:	mg/kg
Project: 85894			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85894.01	**16-12-2389-1-A**	**12/19/16 15:28**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-06-013-1650**	**N/A**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

AETL		Date Received:	12/23/16
2834 North Naomi Street		Work Order:	16-12-2389
Burbank, CA 91504-2023		Preparation:	N/A
		Method:	EPA 9060A
Project: 85894			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-12-2387-4	**Sample**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCS1**
16-12-2387-4	**Matrix Spike**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCS1**
16-12-2387-4	**Matrix Spike Duplicate**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	2670	30000	32090	98	30480	93	75-125	5	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

AETL		Date Received:	12/23/16
2834 North Naomi Street		Work Order:	16-12-2389
Burbank, CA 91504-2023		Preparation:	N/A
		Method:	ASTM D-2216 (M)
Project: 85894			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-12-2387-3	**Sample**	**Solid**	**N/A**	**12/27/16 00:00**	**12/27/16 18:00**	**G1227MOID2**
16-12-2387-3	**Sample Duplicate**	**Solid**	**N/A**	**12/27/16 00:00**	**12/27/16 18:00**	**G1227MOID2**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Moisture	5.200	5.100	2	0-10	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

AETL	Date Received: 12/23/16
2834 North Naomi Street	Work Order: 16-12-2389
Burbank, CA 91504-2023	Preparation: N/A
	Method: EPA 9060A
Project: 85894	Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-06-013-1650	LCS	Solid	TOC 9	12/28/16	12/28/16 13:33	G1228TOCL1
099-06-013-1650	LCSD	Solid	TOC 9	12/28/16	12/28/16 13:33	G1228TOCL1

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	6000	6261	104	6191	103	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 16-12-2389 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
ASTM D-2216 (M)	N/A	1009	N/A	1
EPA 9060A	N/A	735	TOC 9	1

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Glossary of Terms and Qualifiers

Work Order: 16-12-2389 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN-OF-CUSTODY RECORD

WO NO. / LAB USE ONLY: 16-12-2389

DATE: _____

PAGE: 1 OF 1

LABORATORY CLIENT: AETC

ADDRESS: 2834 N. Naomi St,

CITY: Burbank STATE: CA ZIP: 91504

TEL: (818)845-8520 E-MAIL:

CLIENT PROJECT NAME / NO.: 85894

P.O. NO.: 2808 -Sub

PROJECT CONTACT: Jim Lin

LAB CONTACT OR QUOTE NO.:

GLOBAL ID: LOG CODE: SAMPLER(S): (PRINT)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ STANDARD

EDD:

☐ COELT EDF ☐ OTHER

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH _____	BTEX / MTBE ☐ 8260 ☐ _____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	XTOC (9060)			
1	85894.01	12/19/16	15:28	Soil	1x4oz jar																		X			

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 12/23/16	Time: 1155
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

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WORK ORDER NUMBER: 16-12-2389

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: American Environmental Testing laboratory

DATE: 12 / 23 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): 2.5 °C (w/ CF): 2.5 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 107

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 107

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 426

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☐	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☐	☑	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☐

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna_2 ☐ 100PJ ☐ 100PJna_2 ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB

☐ 125PBznna ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 250PB ☐ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs

☐ 500PB ☑ 1AGB ☐ 1AGBna_2 ☐ 1AGBs ☐ 1PB ☐ 1PBna ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☑ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na_2** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **x** = Na_2SO_3+$NaHSO_4.H_2O$, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: AM6

Reviewed by: 1053

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Data Qualifiers and Descriptors

Data Qualifier:

#:	Recovery is not within acceptable control limits.
*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

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Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016-

Telephone: (626)930-1200
Attention: Michael Van Fleet

Number of Pages	**23**
Date Received	**12/21/2016**
Date Reported	**01/10/2017**

Job Number	Order Date	Client
85921	12/21/2016	CONVRS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

Enclosed please find results of analyses of 20 soil samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Attachment: 13 pages

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

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CHAIN OF CUSTODY RECORD

COMPANY: Converse Consultants | PHONE: (626) 930-1200
PROJECT MANAGER: Michael Van Fleet | FAX: (626) 930-1212
PROJECT NAME: Pardee - Meadowood | PROJECT #: 02-41-220-05
SITE NAME AND ADDRESS:

AETL JOB No. 85921 | Page 1 of 12

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	Arsenic - 6010	PCBs - 8082	OCPs - 8081	TOC - 9060	TPH - 8015	PAHs - 8310	Lead - 6010	Metals - 6010/7471	VOCs - 8260	TEST INSTRUCTIONS & COMMENTS
1	A17-1.5	85921.01	12-20-16	11:50	Soil	1 Sleeve	Icc	X									Prepared Composite Sample
2	A18-1.5	85921.02		12:05													AC-5-1.5 from Samples
3	AC-5-1.5	8592.03		—						X	X	X	X				A17-1.5, A18-1.5
4	A19-1.5	85921.04		8:20				X									
5	A20-1.5	85921.05		14:25													
6	A21-1.5	85921.06		15:00													Prep Comp. Sample AC-6-1.5
7	A22-1.5	85921.07		15:30													from Samples A19-1.5,
8	AC-6-1.5	85921.08		—						X	X	X	X				A20-1.5, A21-1.5, A22-1.5
9	A23-1.5	85921.09		14:15				X	X								
10	A24-1.5	85921.10		8:40													
11	A25-1.5	85921.11		14:05													
12	A26-1.5	85921.12		15:00													Prep Comp. Sample AC-7-1.5
13	AC-7-1.5	85921.13		—													from A23-1.5, A24-1.5
14	A27-1.5	85921.14		14:45						X	X	X	X				A25-1.5, A26-1.5
15	A28-1.5	85921.15		12:15				X									

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	12	PROPERLY COOLED (Y) / N / NA	
CUSTODY SEALS Y / (N) / NA		SAMPLES INTACT (Y) / N / NA	
RECEIVED IN GOOD COND. (Y) / N		SAMPLES ACCEPTED (Y) / N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ 24 HRS. ☐ 48 HRS. ☐ 72 HRS.

	RELINQUISHED BY SAMPLER: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature			
Printed Name	Spencer Wagner		
Date / Time	12/21/16 1200		12-22-16 1430
	RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY LABORATORY: AETL 3.**
Signature			
Printed Name	Thomas Baca		Jessica Sandoval
Date / Time	12-21-16 1200		12/21/16 1430

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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CHAIN OF CUSTODY RECORD

AETL JOB No. 85921

COMPANY: Converse Consultants
PHONE: (626) 930-1200
PROJECT MANAGER: Michael Van Fleet
FAX: (626) 930-1212
PROJECT NAME: Pardee - Meadowood
PROJECT #: 02-41-220-05
SITE NAME AND ADDRESS:

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.
1	A29-1.5	85921.16	12/20/16	13:55	So:1	1 Sleeve	Ice
2	A30-1.5	85921.17		12:35			
3	AC-8-1.5	85921.18		—		—	
4	L1-1.5	85921.19		9:45			
5	L2-1.5	85921.20		9:55			
6	L3-1.5	85921.21		10:05			
7	L4-1.5	85921.22		10:15			
8	LC1-1.5	85921.23		—		—	
9	L5-1.5	85921.24		10:25			
10	L6-1.5	85921.25		10:35			
11	L7-1.5	85921.26		10:45			
12	LC2-1.5	85921.27		—		—	
13	L8-1.5	85921.28		10:55			
14	L9-1.5	85921.29		11:05			
15	L10-1.5	85921.30		11:15			

ANALYSIS REQUESTED

	Arsenic - 6010	PCBs - 8082	OCPs - 8081	TOC - 9060	TPH - 8015	PAHs - 8310	Lead - 6010	Metals - 6010/7471	VOCs - 8260
1									
2									
3			X	X	X	X			
4							X		
5							X		
6							X		
7							X		
8			X						
9							X		
10							X		
11							X		
12			X						
13							X		
14							X		
15							X		

TEST INSTRUCTIONS & COMMENTS

Preg Comp. Sample AC-8-1.5 from Samples A27-1.5, A28-1.5 A29-1.5, A30-1.5

Preg. Comp. Sample LC1-1.5 from L1, L2, L3, L4-1.5

Preg. Comp. Sample LC2-1.5 from L5, L6, L7-1.5

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	12	PROPERLY COOLED (Y) N / NA	
CUSTODY SEALS Y / (N) / NA		SAMPLES INTACT (Y) N / NA	
RECEIVED IN GOOD COND. (Y) N		SAMPLES ACCEPTED (Y) N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ 24 HRS. ☐ 48 HRS. ☐ 72 HRS.

	1.	2.	3.
RELINQUISHED BY SAMPLER:	Signature:	RELINQUISHED BY: Signature:	RELINQUISHED BY: Signature:
	Printed Name: Spencer Wagner	Printed Name:	Printed Name: Thomas Lobasso
	Date: 12/21/16 Time: 1200	Date: Time:	Date: 12/21/16 Time: 1430
RECEIVED BY:	Signature:	RECEIVED BY: Signature:	RECEIVED BY LABORATORY: AETL Signature:
	Printed Name: Thomas Lobasso	Printed Name:	Printed Name: Jean Sandoval
	Date: 12/21/16 Time: 1200	Date: Time:	Date: 12/21/16 Time: 1430

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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Attention: Michael Van Fleet

Project ID: 02-41-220-05
Date Received 12/21/2016
Date Reported 01/10/2017

Job Number	Order Date	Client
85921	12/21/2016	CONVRS

CERTIFICATE OF ANALYSIS
CASE NARRATIVE

AETL received 30 samples with the following specification on 12/21/2016.

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
85921.01	A17-1.5	12/20/2016	Soil	1
85921.04	A19-1.5	12/20/2016	Soil	1
85921.14	A27-1.5	12/20/2016	Soil	1

Method ^ Submethod	Req Date	Priority	TAT	Units
(6010BSCAN) ^ AS	12/28/2016	2	Normal	mg/Kg

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
85921.02	A18-1.5	12/20/2016	Soil	1
85921.05	A20-1.5	12/20/2016	Soil	1
85921.06	A21-1.5	12/20/2016	Soil	1
85921.07	A22-1.5	12/20/2016	Soil	1
85921.10	A24-1.5	12/20/2016	Soil	1
85921.11	A25-1.5	12/20/2016	Soil	1
85921.12	A26-1.5	12/20/2016	Soil	1
85921.15	A28-1.5	12/20/2016	Soil	1
85921.16	A29-1.5	12/20/2016	Soil	1
85921.17	A30-1.5	12/20/2016	Soil	1

Method ^ Submethod	Req Date	Priority	TAT	Units
ARCHIVE	12/28/2016	2	Normal	--

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
85921.03	AC-5-1.5	12/20/2016	Soil	1
85921.08	AC-6-1.5	12/20/2016	Soil	1
85921.13	AC-7-1.5	12/20/2016	Soil	1
85921.18	AC-8-1.5	12/20/2016	Soil	1

Method ^ Submethod	Req Date	Priority	TAT	Units
(8081A)	12/28/2016	2	Normal	ug/Kg
(8310)	12/28/2016	2	Normal	mg/Kg
(9060)	12/28/2016	2	Normal	mg/Kg
(M8015D) ^ C13-C40	12/28/2016	2	Normal	mg/Kg

Continued

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Project ID: 02-41-220-05
Date Received 12/21/2016
Date Reported 01/10/2017

Job Number	Order Date	Client
85921	12/21/2016	CONVRS

CERTIFICATE OF ANALYSIS

CASE NARRATIVE

85921.18	AC-8-1.5	12/20/2016	Soil			1
	Method ^ Submethod	***Req Date***	***Priority***	***TAT***	***Units***	
	(M8015G)	12/28/2016	2	Normal	mg/Kg	
85921.09	A23-1.5	12/20/2016	Soil			1
	Method ^ Submethod	***Req Date***	***Priority***	***TAT***	***Units***	
	(6010BSCAN) ^ AS	12/28/2016	2	Normal	mg/Kg	
	(8082)	12/28/2016	2	Normal	ug/Kg	
85921.19	L1-1.5	12/20/2016	Soil			1
85921.20	L2-1.5	12/20/2016	Soil			1
85921.21	L3-1.5	12/20/2016	Soil			1
85921.22	L4-1.5	12/20/2016	Soil			1
85921.24	L5-1.5	12/20/2016	Soil			1
85921.25	L6-1.5	12/20/2016	Soil			1
85921.26	L7-1.5	12/20/2016	Soil			1
85921.28	L8-1.5	12/20/2016	Soil			1
85921.29	L9-1.5	12/20/2016	Soil			1
85921.30	L10-1.5	12/20/2016	Soil			1
	Method ^ Submethod	***Req Date***	***Priority***	***TAT***	***Units***	
	(6010B.LEAD)	12/28/2016	2	Normal	mg/Kg	
85921.23	LC1-1.5	12/20/2016	Soil			1
85921.27	LC2-1.5	12/20/2016	Soil			1
	Method ^ Submethod	***Req Date***	***Priority***	***TAT***	***Units***	
	(8081A)	12/28/2016	2	Normal	ug/Kg	

The samples were analyzed as specified on the enclosed chain of custody.
No analytical non-conformances were encountered.

Unless otherwise noted, all results of soil and solid samples are based on wet weight.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

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ANALYTICAL RESULTS

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Page: **2**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (6010BSCAN), Arsenic by ICP

QC Batch No: 1227162C2

Our Lab I.D.			Method Blank	85921.01	85921.04	85921.09	85921.14
Client Sample I.D.				A17-1.5	A19-1.5	A23-1.5	A27-1.5
Date Sampled				12/20/2016	12/20/2016	12/20/2016	12/20/2016
Date Prepared			12/27/2016	12/27/2016	12/27/2016	12/27/2016	12/27/2016
Preparation Method			3050B	3050B	3050B	3050B	3050B
Date Analyzed			12/28/2016	12/28/2016	12/28/2016	12/28/2016	12/28/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Arsenic	2.5	5.0	ND	2.71J	ND	ND	ND

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Page: **3**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 122216OB1

Our Lab I.D.			Method Blank	85921.03	85921.08	85921.13	85921.18
Client Sample I.D.				AC-5-1.5	AC-6-1.5	AC-7-1.5	AC-8-1.5
Date Sampled				12/20/2016	12/20/2016	12/20/2016	12/20/2016
Date Prepared			12/22/2016	12/22/2016	12/22/2016	12/22/2016	12/22/2016
Preparation Method			5030	5030	5030	5030	5030
Date Analyzed			12/22/2016	12/22/2016	12/22/2016	12/22/2016	12/22/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
TPH as Gasoline and Light HC. (C4-C12)	0.100	1.000	ND	ND	ND	ND	ND
Our Lab I.D.			Method Blank	85921.03	85921.08	85921.13	85921.18
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Bromofluorobenzene	75-125		96.6	95.6	98.4	99.0	98.8

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Page: **4**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 122216PB1

Our Lab I.D.			Method Blank	85921.03	85921.08	85921.13	85921.18
Client Sample I.D.				AC-5-1.5	AC-6-1.5	AC-7-1.5	AC-8-1.5
Date Sampled				12/20/2016	12/20/2016	12/20/2016	12/20/2016
Date Prepared			12/22/2016	12/22/2016	12/22/2016	12/22/2016	12/22/2016
Preparation Method			3550B	3550B	3550B	3550B	3550B
Date Analyzed			12/22/2016	12/22/2016	12/22/2016	12/22/2016	12/22/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
TPH as Diesel (C13-C22)	1.0	5.0	ND	ND	ND	ND	ND
TPH as Heavy Hydrocarbons (C23-C40)	1.0	5.0	ND	ND	ND	ND	ND
TPH Total as Diesel and Heavy HC.C13-C40	1.0	5.0	ND	ND	ND	ND	ND
Our Lab I.D.			Method Blank	85921.03	85921.08	85921.13	85921.18
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Chlorobenzene	75-125		103	99.3	102	102	102

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ANALYTICAL RESULTS

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Attn: Michael Van Fleet
Page: 5

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (8310), Polynuclear Aromatic Hydrocarbons (SW-846)

QC Batch No: 122216IB1

Our Lab I.D.			Method Blank	85921.03	85921.08	85921.13	85921.18
Client Sample I.D.				AC-5-1.5	AC-6-1.5	AC-7-1.5	AC-8-1.5
Date Sampled				12/20/2016	12/20/2016	12/20/2016	12/20/2016
Date Prepared			12/22/2016	12/22/2016	12/22/2016	12/22/2016	12/22/2016
Preparation Method			3550B	3550B	3550B	3550B	3550B
Date Analyzed			12/22/2016	12/22/2016	12/22/2016	12/22/2016	12/22/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Benzo(a)anthracene	0.010	0.020	ND	ND	ND	ND	ND
Benzo(a)pyrene	0.010	0.020	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	0.010	0.020	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.010	0.020	ND	ND	ND	ND	ND
Chrysene	0.010	0.020	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.010	0.020	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.010	0.020	ND	ND	ND	ND	ND
Acenaphthene	0.010	0.020	ND	ND	ND	ND	ND
Acenaphthylene	0.010	0.020	ND	ND	ND	ND	ND
Anthracene	0.010	0.020	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	0.010	0.020	ND	ND	ND	ND	ND
Fluoranthene	0.010	0.020	ND	ND	ND	ND	ND
Fluorene	0.010	0.020	ND	ND	ND	ND	ND
Naphthalene	0.010	0.020	ND	ND	ND	ND	ND
Phenanthrene	0.010	0.020	ND	ND	ND	ND	ND
Pyrene	0.010	0.020	ND	ND	ND	ND	ND
Our Lab I.D.			Method Blank	85921.03	85921.08	85921.13	85921.18
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
p-Terphenyl-D14	75-125		111	116	114	115	109

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ANALYTICAL RESULTS

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Attn: Michael Van Fleet
Page: 6

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (9060), Total Organic Carbon (SW-846)

QC Batch No: G1228TOCL1

Our Lab I.D.			Method Blank	85921.03	85921.08	85921.13	85921.18
Client Sample I.D.				AC-5-1.5	AC-6-1.5	AC-7-1.5	AC-8-1.5
Date Sampled				12/20/2016	12/20/2016	12/20/2016	12/20/2016
Date Prepared			12/28/2016	12/28/2016	12/28/2016	12/28/2016	12/28/2016
Preparation Method			9060	9060	9060	9060	9060
Date Analyzed			12/28/2016	12/28/2016	12/28/2016	12/28/2016	12/28/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Carbon, Total Organic (TOC)	500	500	ND	1,300	540	1,200	ND

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ANALYTICAL RESULTS

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (8081A), Organochlorine Pesticides by GC

QC Batch No: 122716EB1

Our Lab I.D.			Method Blank	85921.03	85921.08	85921.13	85921.18
Client Sample I.D.				AC-5-1.5	AC-6-1.5	AC-7-1.5	AC-8-1.5
Date Sampled				12/20/2016	12/20/2016	12/20/2016	12/20/2016
Date Prepared			12/27/2016	12/27/2016	12/27/2016	12/27/2016	12/27/2016
Preparation Method			3550B	3550B	3550B	3550B	3550B
Date Analyzed			12/28/2016	12/28/2016	12/28/2016	12/28/2016	12/28/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Aldrin	1.0	2.0	ND	ND	ND	ND	ND
Chlordane (Total)	1.0	2.0	ND	ND	ND	ND	ND
Chlordane (alpha)	1.0	2.0	ND	ND	ND	ND	ND
4,4'-DDD (DDD)	1.0	2.0	ND	ND	ND	ND	ND
4,4'-DDE (DDE)	1.0	2.0	ND	ND	1.38J	ND	ND
4,4'-DDT (DDT)	1.0	2.0	ND	ND	ND	ND	ND
Dieldrin	1.0	2.0	ND	ND	ND	ND	ND
Endosulfan 1	1.0	2.0	ND	ND	ND	ND	ND
Endosulfan 11	1.0	2.0	ND	ND	ND	ND	ND
Endosulfan sulfate	1.0	2.0	ND	ND	ND	ND	ND
Endrin	1.0	2.0	ND	ND	ND	ND	ND
Endrin aldehyde	1.0	2.0	ND	ND	ND	ND	ND
Endrin ketone	1.0	2.0	ND	ND	ND	ND	ND
Chlordane (gamma)	1.0	2.0	ND	ND	ND	ND	ND
Heptachlor	1.0	2.0	ND	ND	ND	ND	ND
Heptachlor epoxide	1.0	2.0	ND	ND	ND	ND	ND
alpha-Hexachlorocyclohexane (Alpha-BHC)	1.0	2.0	ND	ND	ND	ND	ND
beta-Hexachlorocyclohexane (Betta-BHC)	1.0	2.0	ND	ND	ND	ND	ND
delta-Hexachlorocyclohexane (Delta-BHC)	1.0	2.0	ND	ND	ND	ND	ND
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	1.0	2.0	ND	ND	ND	ND	ND
Methoxychlor	5.0	10.0	ND	ND	ND	ND	ND
Toxaphene	85.0	170.0	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (8081A), Organochlorine Pesticides by GC

Our Lab I.D.			Method Blank	85921.03	85921.08	85921.13	85921.18
Surrogates	%Rec.Limit		% Rec.	% Rec.	% Rec.	% Rec.	% Rec.
Decachlorobiphenyl	30-150		117	108	114	130	97.2
Tetrachloro-m-xylene	30-150		110	116	130	99.2	65.6

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (8081A), Organochlorine Pesticides by GC

QC Batch No: 122716EB1

Our Lab I.D.			85921.23	85921.27			
Client Sample I.D.			LC1-1.5	LC2-1.5			
Date Sampled			12/20/2016	12/20/2016			
Date Prepared			12/27/2016	12/27/2016			
Preparation Method			3550B	3550B			
Date Analyzed			12/28/2016	12/28/2016			
Matrix			Soil	Soil			
Units			ug/Kg	ug/Kg			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Aldrin	1.0	2.0	ND	ND			
Chlordane (Total)	1.0	2.0	1.32J	ND			
Chlordane (alpha)	1.0	2.0	ND	ND			
4,4'-DDD (DDD)	1.0	2.0	ND	ND			
4,4'-DDE (DDE)	1.0	2.0	ND	ND			
4,4'-DDT (DDT)	1.0	2.0	ND	ND			
Dieldrin	1.0	2.0	ND	ND			
Endosulfan 1	1.0	2.0	ND	ND			
Endosulfan 11	1.0	2.0	ND	ND			
Endosulfan sulfate	1.0	2.0	ND	ND			
Endrin	1.0	2.0	ND	ND			
Endrin aldehyde	1.0	2.0	ND	ND			
Endrin ketone	1.0	2.0	ND	ND			
Chlordane (gamma)	1.0	2.0	ND	ND			
Heptachlor	1.0	2.0	ND	ND			
Heptachlor epoxide	1.0	2.0	ND	ND			
alpha-Hexachlorocyclohexane (Alpha-BHC)	1.0	2.0	ND	ND			
beta-Hexachlorocyclohexane (Betta-BHC)	1.0	2.0	ND	ND			
delta-Hexachlorocyclohexane (Delta-BHC)	1.0	2.0	ND	ND			
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	1.0	2.0	ND	ND			
Methoxychlor	5.0	10.0	ND	ND			
Toxaphene	85.0	170.0	ND	ND			

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ANALYTICAL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (8081A), Organochlorine Pesticides by GC

Our Lab I.D.			85921.23	85921.27			
Surrogates	%Rec.Limit		% Rec.	% Rec.			
Decachlorobiphenyl	30-150		97.4	138			
Tetrachloro-m-xylene	30-150		78.4	103			

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (8082), Polychlorinated Biphenyls (PCBs) by GC

QC Batch No: 122716

Our Lab I.D.			Method Blank	**85921.09**			
Client Sample I.D.				A23-1.5			
Date Sampled				12/20/2016			
Date Prepared			12/27/2016	12/27/2016			
Preparation Method			3550B	3550B			
Date Analyzed			12/28/2016	12/28/2016			
Matrix			Soil	Soil			
Units			ug/Kg	ug/Kg			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Aroclor-1016 (PCB-1016)	25.0	50.0	ND	ND			
Aroclor-1221 (PCB-1221)	25.0	50.0	ND	ND			
Aroclor-1232 (PCB-1232)	25.0	50.0	ND	ND			
Aroclor-1242 (PCB-1242)	25.0	50.0	ND	ND			
Aroclor-1248 (PCB-1248)	25.0	50.0	ND	ND			
Aroclor-1254 (PCB-1254)	25.0	50.0	ND	ND			
Aroclor-1260 (PCB-1260)	25.0	50.0	ND	ND			
Aroclor-1262 (PCB-1262)	25.0	50.0	ND	ND			
Aroclor-1268 (PCB-1268)	25.0	50.0	ND	ND			
Our Lab I.D.			Method Blank	**85921.09**			
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**			
Decachlorobiphenyl	30-150		94.6	129			
Tetrachloro-m-xylene	30-150		60.0	69.5			

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (6010B.LEAD), Lead, ICP

QC Batch No: 1227162C2

Our Lab I.D.			Method Blank	85921.19	85921.20	85921.21	85921.22
Client Sample I.D.				L1-1.5	L2-1.5	L3-1.5	L4-1.5
Date Sampled				12/20/2016	12/20/2016	12/20/2016	12/20/2016
Date Prepared			12/27/2016	12/27/2016	12/27/2016	12/27/2016	12/27/2016
Preparation Method			3050B	3050B	3050B	3050B	3050B
Date Analyzed			12/28/2016	12/28/2016	12/28/2016	12/28/2016	12/28/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Lead	2.5	5.0	ND	ND	ND	ND	ND

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (6010B.LEAD), Lead, ICP

QC Batch No: 1227162C2

Our Lab I.D.			85921.24	85921.25			
Client Sample I.D.			L5-1.5	L6-1.5			
Date Sampled			12/20/2016	12/20/2016			
Date Prepared			12/27/2016	12/27/2016			
Preparation Method			3050B	3050B			
Date Analyzed			12/28/2016	12/28/2016			
Matrix			Soil	Soil			
Units			mg/Kg	mg/Kg			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Lead	2.5	5.0	ND	ND			

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (6010B.LEAD), Lead, ICP

QC Batch No: 1227162C3

Our Lab I.D.			Method Blank	85921.26	85921.28	85921.29	85921.30
Client Sample I.D.				L7-1.5	L8-1.5	L9-1.5	L10-1.5
Date Sampled				12/20/2016	12/20/2016	12/20/2016	12/20/2016
Date Prepared			12/27/2016	12/27/2016	12/27/2016	12/27/2016	12/27/2016
Preparation Method			3050B	3050B	3050B	3050B	3050B
Date Analyzed			12/28/2016	12/28/2016	12/28/2016	12/28/2016	12/28/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Lead	2.5	5.0	ND	ND	ND	ND	ND

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (6010B.LEAD), Lead, ICP

QC Batch No: 1227162C2; Dup or Spiked Sample: 85921.01; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Lead	0.00	50.0	39.8	79.6	50.0	39.5	79.0	<1	75-125	<15

QC Batch No: 1227162C2; Dup or Spiked Sample: 85921.01; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Lead	50.0	51.0	102	50.0	51.0	102	<1	75-125	<15	

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (6010B.LEAD), Lead, ICP

QC Batch No: 1227162C3; Dup or Spiked Sample: 85921.26; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Lead	0.00	50.0	38.8	77.6	50.0	38.5	77.0	<1	75-125	<15

QC Batch No: 1227162C3; Dup or Spiked Sample: 85921.26; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Lead	50.0	48.0	96.0	50.0	48.0	96.0	<1	75-125	<15	

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (6010BSCAN), Arsenic by ICP

QC Batch No: 1227162C2; Dup or Spiked Sample: 85921.01; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Arsenic	2.71	50.0	45.0	84.6	50.0	44.8	84.2	<1	75-125	<15

QC Batch No: 1227162C2; Dup or Spiked Sample: 85921.01; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Arsenic	50.0	50.5	101	50.0	50.5	101	<1	75-125	<15	

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (8081A), Organochlorine Pesticides by GC

QC Batch No: 122716EB1; Dup or Spiked Sample: 85921.08; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: ug/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Aldrin	0.00	20.0	14.4	72.0	20.0	13.2	66.0	8.7	40-150	<40
4,4'-DDT (DDT)	0.00	50.0	51.5	103	50.0	43.0	86.0	18.0	40-150	<40
Dieldrin	0.00	50.0	57.0	114	50.0	38.4	76.8	39.0	40-150	<40
Endrin	0.00	50.0	37.1	74.2	50.0	32.3	64.6	13.8	40-150	<40
Heptachlor	0.00	20.0	21.4	107	20.0	17.6	88.0	19.5	40-150	<40
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	0.00	20.0	18.9	94.5	20.0	15.6	78.0	19.1	40-150	<40
Surrogates										
Decachlorobiphenyl	0.00	50.0	72.5	145	50.0	71.5	143	1.38	30-150	<40
Tetrachloro-m-xylene	0.00	50.0	46.2	92.4	50.0	29.1	58.2	37.0	30-150	<40

QC Batch No: 122716EB1; Dup or Spiked Sample: 85921.08; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: ug/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS/LCSD % Limit						
Aldrin	20.0	13.6	68.0	50-150						
4,4'-DDT (DDT)	50.0	47.5	95.0	50-150						
Dieldrin	50.0	47.0	94.0	50-150						
Endrin	50.0	29.6	59.2	50-150						
Heptachlor	20.0	17.5	87.5	50-150						
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	20.0	15.7	78.5	50-150						
Surrogates										
Decachlorobiphenyl	50.0	58.0	116	30-150						
Tetrachloro-m-xylene	50.0	41.8	83.6	30-150						

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (8082), Polychlorinated Biphenyls (PCBs) by GC

QC Batch No: 122716; Dup or Spiked Sample: 85921.09; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: ug/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Aroclor-1016 (PCB-1016)	0.00	500	410	82.0	500	391	78.2	4.7	50-150	<50
Aroclor-1260 (PCB-1260)	0.00	500	441	88.2	500	481	96.2	8.7	50-150	<50
Surrogates										
Decachlorobiphenyl	0.00	50.0	53.0	106	50.0	54.5	109	2.8	30-150	<50
Tetrachloro-m-xylene	0.00	50.0	48.9	97.8	50.0	47.0	94.0	4.0	30-150	<50

QC Batch No: 122716; Dup or Spiked Sample: 85921.09; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: ug/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS/LCSD % Limit						
Aroclor-1016 (PCB-1016)	500	257	51.4	50-150						
Aroclor-1260 (PCB-1260)	500	424	84.8	50-150						
Surrogates										
Decachlorobiphenyl	50.0	50.5	101	30-150						
Tetrachloro-m-xylene	50.0	30.1	60.2	30-150						

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (8310), Polynuclear Aromatic Hydrocarbons (SW-846)

QC Batch No: 122216IB1; Dup or Spiked Sample: 85932.02; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/22/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Benzo(a)anthracene	0.00	0.0500	0.0487	97.4	0.0500	0.0481	96.2	1.2	75-125	<20
Benzo(a)pyrene	0.00	0.0500	0.0483	96.6	0.0500	0.0475	95.0	1.7	75-125	<20
Naphthalene	0.00	0.500	0.464	92.8	0.500	0.457	91.4	1.5	75-125	<20
Surrogates										
p-Terphenyl-D14	0.00	0.400	0.468	117	0.400	0.456	114	2.6	75-125	<20

QC Batch No: 122216IB1; Dup or Spiked Sample: 85932.02; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/22/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS/LCSD % Limit						
Benzo(a)anthracene	0.0500	0.0490	98.0	75-125						
Benzo(a)pyrene	0.0500	0.0482	96.4	75-125						
Naphthalene	0.500	0.467	93.4	75-125						
LCS										
Acenaphthene	0.500	0.469	93.8	75-125						
Acenaphthylene	1.00	0.929	92.9	75-125						
Anthracene	0.0500	0.0478	95.6	75-125						
Benzo(b)fluoranthene	0.100	0.0970	97.0	75-125						
Benzo(g,h,i)perylene	0.100	0.0959	95.9	75-125						
Benzo(k)fluoranthene	0.0500	0.0485	97.0	75-125						
Chrysene	0.0500	0.0500	100	75-125						
Dibenzo(a,h)anthracene	0.100	0.0967	96.7	75-125						
Fluoranthene	0.100	0.0931	93.1	75-125						
Fluorene	0.100	0.0952	95.2	75-125						
Indeno(1,2,3-cd)pyrene	0.0500	0.0498	99.6	75-125						
Phenanthrene	0.0500	0.0477	95.4	75-125						
Pyrene	0.0500	0.0495	99.0	75-125						
Surrogates										
p-Terphenyl-D14	0.400	0.464	116	75-125						

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QUALITY CONTROL RESULTS

Ordered By

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016-

Telephone: (626)930-1200
Attn: Michael Van Fleet
Page: **21**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (9060), Total Organic Carbon (SW-846)

QC Batch No: G1228TOCL1; Dup or Spiked Sample: 85891.20; LCS: Clean Sand; QC Prepared: 12/28/2016; QC Analyzed: 12/28/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Carbon, Total Organic (TOC)	2,670	30,000	32,100	98.0	30,000	30,600	93.0	5.2	75-125	<25

QC Batch No: G1228TOCL1; Dup or Spiked Sample: 85891.20; LCS: Clean Sand; QC Prepared: 12/28/2016; QC Analyzed: 12/28/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Carbon, Total Organic (TOC)	6,000	6,240	104	6,000	6,180	103	<1	80-120	<20	

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Telephone: (626)930-1200
Attn: Michael Van Fleet
Page: **22**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (M8015D), TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 122216PB1; Dup or Spiked Sample: 85925.01; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/22/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
TPH as Diesel (C13-C22)	0.00	500	515	103	500	510	102	<1	75-125	<20
Surrogates										
Chlorobenzene	0.00	100	102	102	100	102	102	<1	75-125	<20

QC Batch No: 122216PB1; Dup or Spiked Sample: 85925.01; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/22/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
TPH as Diesel (C13-C22)	500	505	101	500	498	99.6	1.4	75-125	<20	
Surrogates										
Chlorobenzene	100	98.5	98.5	100	96.9	96.9	1.6	75-125	<20	

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Telephone: (626)930-1200
Attn: Michael Van Fleet
Page: **23**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85921	12/21/2016	CONVRS

Method: (M8015G), TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 122216OB1; Dup or Spiked Sample: 85947.01AGA; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/22/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
TPH as Gasoline and Light HC. (C4-C12)	0.00	1.00	0.844	84.4	1.00	0.914	91.4	7.96	75-125	<20
Surrogates										
Bromofluorobenzene	0.00	0.0500	0.0485	97.0	0.0500	0.0510	102	5.15	75-125	<20

QC Batch No: 122216OB1; Dup or Spiked Sample: 85947.01AGA; LCS: Clean Sand; QC Prepared: 12/22/2016; QC Analyzed: 12/22/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
TPH as Gasoline and Light HC. (C4-C12)	1.00	0.965	96.5	1.00	0.925	92.5	4.23	75-125	<20	
Surrogates										
Bromofluorobenzene	0.0500	0.0477	95.4	0.0500	0.0464	92.8	2.73	75-125	<20	

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WORK ORDER NUMBER: 16-12-2388

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For
Client: AETL
Client Project Name: 85921
Attention: Jim Lin
2834 North Naomi Street
Burbank, CA 91504-2023

Approved for release on 01/04/2017 by:
Don Burley
Project Manager

ResultLink ▸

Email your PM ▸

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Work Order Number: 16-12-2388

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Work Order Narrative

Work Order: 16-12-2388 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 12/23/16. They were assigned to Work Order 16-12-2388.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Sample Summary

Client:	AETL	Work Order:	16-12-2388
	2834 North Naomi Street	Project Name:	85921
	Burbank, CA 91504-2023	PO Number:	21809-sub
		Date/Time Received:	12/23/16 11:55
		Number of Containers:	4
Attn:	Jim Lin		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
85921-03	16-12-2388-1	12/20/16 00:00	1	Solid
85921-08	16-12-2388-2	12/20/16 00:00	1	Solid
85921-13	16-12-2388-3	12/20/16 00:00	1	Solid
85921-18	16-12-2388-4	12/20/16 00:00	1	Solid

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Analytical Report

AETL
2834 North Naomi Street
Burbank, CA 91504-2023

Project: 85921

Date Received: 12/23/16
Work Order: 16-12-2388
Preparation: N/A
Method: ASTM D-2216 (M)
Units: %

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85921-03	**16-12-2388-1-A**	**12/20/16 00:00**	**Solid**	**N/A**	**12/27/16**	**12/27/16 18:00**	**G1227MOIB2**
Parameter		Result		RL	DF	Qualifiers	
Moisture		13		0.10	1.00		
85921-08	**16-12-2388-2-A**	**12/20/16 00:00**	**Solid**	**N/A**	**12/27/16**	**12/27/16 18:00**	**G1227MOIB2**
Parameter		Result		RL	DF	Qualifiers	
Moisture		13		0.10	1.00		
85921-13	**16-12-2388-3-A**	**12/20/16 00:00**	**Solid**	**N/A**	**12/27/16**	**12/27/16 18:00**	**G1227MOIB2**
Parameter		Result		RL	DF	Qualifiers	
Moisture		14		0.10	1.00		
85921-18	**16-12-2388-4-A**	**12/20/16 00:00**	**Solid**	**N/A**	**12/27/16**	**12/27/16 18:00**	**G1227MOIB2**
Parameter		Result		RL	DF	Qualifiers	
Moisture		9.0		0.10	1.00		
Method Blank	**099-05-014-6592**	**N/A**	**Solid**	**N/A**	**12/27/16**	**12/27/16 18:00**	**G1227MOIB2**
Parameter		Result		RL	DF	Qualifiers	
Moisture		ND		0.10	1.00		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AETL	Date Received:	12/23/16
2834 North Naomi Street	Work Order:	16-12-2388
Burbank, CA 91504-2023	Preparation:	N/A
	Method:	EPA 9060A
	Units:	mg/kg
Project: 85921		Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85921-03	**16-12-2388-1-A**	**12/20/16 00:00**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	1300	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85921-08	**16-12-2388-2-A**	**12/20/16 00:00**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	540	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85921-13	**16-12-2388-3-A**	**12/20/16 00:00**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	1200	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85921-18	**16-12-2388-4-A**	**12/20/16 00:00**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-06-013-1650**	**N/A**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

AETL		Date Received:	12/23/16
2834 North Naomi Street		Work Order:	16-12-2388
Burbank, CA 91504-2023		Preparation:	N/A
		Method:	EPA 9060A
Project: 85921			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-12-2387-4	**Sample**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCS1**
16-12-2387-4	**Matrix Spike**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCS1**
16-12-2387-4	**Matrix Spike Duplicate**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	2670	30000	32090	98	30480	93	75-125	5	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

AETL		Date Received:	12/23/16
2834 North Naomi Street		Work Order:	16-12-2388
Burbank, CA 91504-2023		Preparation:	N/A
		Method:	ASTM D-2216 (M)
Project: 85921			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-12-2387-3	**Sample**	**Solid**	**N/A**	**12/27/16 00:00**	**12/27/16 18:00**	**G1227MOID2**
16-12-2387-3	**Sample Duplicate**	**Solid**	**N/A**	**12/27/16 00:00**	**12/27/16 18:00**	**G1227MOID2**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Moisture	5.200	5.100	2	0-10	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

AETL		Date Received:	12/23/16
2834 North Naomi Street		Work Order:	16-12-2388
Burbank, CA 91504-2023		Preparation:	N/A
		Method:	EPA 9060A
Project: 85921			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-06-013-1650	**LCS**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCL1**
099-06-013-1650	**LCSD**	**Solid**	**TOC 9**	**12/28/16**	**12/28/16 13:33**	**G1228TOCL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	6000	6261	104	6191	103	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 16-12-2388 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
ASTM D-2216 (M)	N/A	1009	N/A	1
EPA 9060A	N/A	735	TOC 9	1

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Glossary of Terms and Qualifiers

Work Order: 16-12-2388 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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CHAIN OF CUSTODY RECORD

№ 99472

AETL JOB No. **16-12-2388** Page 1 of 1

COMPANY	AETC
PROJECT MANAGER	Jim Liu
COMPANY ADDRESS	2834 N. Naomi St, Burbank CA 91504
PHONE	818-845-8200
FAX	818-845-8840
PROJECT NAME	
PROJECT #	85921
SITE NAME AND ADDRESS	
PO #	21809-SUB

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	TOC									TEST INSTRUCTIONS & COMMENTS
1	85921.03		12/20/16		Soil	4oz Jar	Ice	X									
2	.08							X									
3	.13							X									
4	.18							X									
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

ANALYSIS REQUESTED

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS		PROPERLY COOLED Y / N / NA	
CUSTODY SEALS Y / N / NA		SAMPLES INTACT Y/ N / NA	
RECEIVED IN GOOD COND. Y / N		SAMPLES ACCEPTED Y / N	

TURN AROUND TIME

☐ NORMAL ☐ RUSH ☐ SAME DAY ☐ NEXT DAY ☐ 2 DAYS ☐ 3 DAYS

DATA DELIVERABLE REQUIRED

☐ HARD COPY
☐ PDF
☐ GEOTRACKER (GLOBAL ID) _____
☐ OTHER (PLEASE SPECIFY) _____

	1.	2.	3.
RELINQUISHED BY SAMPLER: / RELINQUISHED BY: / RELINQUISHED BY:			
Signature:			
Printed Name:	Brandon P.		
Date: / Time:	12/23/16 1155		
RECEIVED BY: / RECEIVED BY: / RECEIVED BY LABORATORY:			
Signature:			
Printed Name:	Paul Liao		
Date: / Time:	12/23/16 1155		

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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WORK ORDER NUMBER: 16-12-2388

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: American Environmental Testing Laboratory

DATE: 12 / 23 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): 2.5 °C (w/ CF): 2.5 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 1017

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1017

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: AU6

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☐	☑	☐
☐ Sampling date ☑ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOAh ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 250PB ☐ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs

☐ 500PB ☑ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGBs ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☑ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® (____) ☐ TerraCores® (____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **x** = Na_2SO_3+$NaHSO_4.H_2O$, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: AU6

Reviewed by: 1053

Return to Contents

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Data Qualifiers and Descriptors

Data Qualifier:

#:	Recovery is not within acceptable control limits.
*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

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Ordered By

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016-

Telephone: (626)930-1200
Attention: Michael Van Fleet

Number of Pages	**11**
Date Received	**12/21/2016**
Date Reported	**01/10/2017**

Job Number	Order Date	Client
85922	12/21/2016	CONVRS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

Enclosed please find results of analyses of 17 soil samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Attachment: 15 pages

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.

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CHAIN OF CUSTODY RECORD

AETL JOB No. 85922

COMPANY: Converse Consultants
PHONE: (626) 930-1200
PROJECT MANAGER: Michael Van Fleet
FAX: (626) 930-1212
PROJECT NAME: Pardee - Meadowood
PROJECT #: 02-41-220-05
SITE NAME AND ADDRESS:

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	Arsenic - 6010	PCBs - 8082	OCPs - 8081	TOC - 9060	TPH - 8015	PAHs - 8310	Lead - 6010	Metals - 6010/7471	VOCs - 8260	Hold	TEST INSTRUCTIONS & COMMENTS
	LC3-1.5	85922.01	12/20/16	—	Soil	—	Ice			X								Proj Comp Sample LC3-1.5
2	FS-2	85922.02		1520		1 Sleeve									X			From LB-1.5, L9-1.5, L10-1.5
3	-4	85922.03		1521							X						X	
4	-8	85922.04		1522							X				X			
5	-12	85922.05		1523							X						X	
6	F6-2	85922.06		14:35											X			
7	-4	85922.07		14:36							X						X	
8	-8	85922.08		14:37							X				X			
9	-12	85922.09		14:38							X						X	
10	F7-2	85922.10		14:40											X			
11	-4	85922.11		14:41							X						X	
12	-8	85922.12		14:42							X				X			
13	-12	85922.13		14:43							X						X	
14	F8-2	85922.14		12:25											X			
15	-4	85922.15	↓	12:26	↓	↓	↓				X						X	

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	14	PROPERLY COOLED Y / N / NA	
CUSTODY SEALS Y / N / NA		SAMPLES INTACT Y / N / NA	
RECEIVED IN GOOD COND. Y / N		SAMPLES ACCEPTED Y / N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ 24 HRS. ☐ 48 HRS. ☐ 72 HRS.

	1.	2.	3.
RELINQUISHED BY SAMPLER:	Signature:	Signature:	Signature:
	Printed Name: Spencer Wagner	Printed Name:	Printed Name: Thomas LeBlanc
	Date: 12/21/16 Time: 1200	Date: Time:	Date: 12/21/16 Time: 1430
RECEIVED BY:	Signature:	Signature:	Signature:
	Printed Name: Thomas LeBlanc	Printed Name:	Printed Name: Logan Lauck
	Date: 12-21-16 Time: 1200	Date: Time:	Date: 12/21/16 Time: 1430

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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CHAIN OF CUSTODY RECORD

AETL JOB No 85922

COMPANY: Converse Consultants
PHONE: (626) 930-1200
PROJECT MANAGER: Michael Van Fleet
FAX: (626) 930-1212
PROJECT NAME: Pardee - Meadowood
PROJECT #: 02-41-220-05
SITE NAME AND ADDRESS:

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.
1	F8-8	85922.16	12/20/16	12:27	Soil	1 Sleeve	Ice
2	-12	85922.17	12/20/16	12:28			
3	A17-2	85922.18	12/20/16	11:51			
4	-2.5	85922.19		11:52			
5	-3	85922.20		11:53			
6	-3.5	85922.21		11:54			
7	-4	85922.22		11:55			
8	A18-2	85922.23		12:06			
9	-2.5	85922.24		12:07			
10	-3	85922.25		12:08			
11	-3.5	85922.26		12:09			
12	-4	85922.27		12:10			
13	A19-2	85922.28		8:21			
14	-2.5	85922.29		8:22			
15	-3	85922.30		8:23			

ANALYSIS REQUESTED

Arsenic - 6010	PCBs - 8082	OCPs - 8081	TOC - 9060	TPH - 8015	PAHs - 8310	Lead - 6010	Metals - 6010/7471	VOCs - 8260	Hold
			X				X		
			X						X
									X
									X
									X
									X
									X
									X
									X
									X
									X
									X
									X
									X
									X

TEST INSTRUCTIONS & COMMENTS:

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS: 15
CUSTODY SEALS Y / N / NA
RECEIVED IN GOOD COND. Y / N
PROPERLY COOLED Y / N / NA
SAMPLES INTACT Y / N / NA
SAMPLES ACCEPTED Y / N

TURN AROUND TIME

☑ NORMAL ☐ RUSH ☐ SAME DAY ☐ 24 HRS. ☐ 48 HRS. ☐ 72 HRS.

RELINQUISHED BY SAMPLER: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature:	Signature:	Signature:
Printed Name: Spencer Wagner	Printed Name:	Printed Name: Thomas LeBlanc
Date: 12/21/16 Time: 1200	Date: Time:	Date: 12-21-16 Time: 1430
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY LABORATORY / AETL 3.**
Signature:	Signature:	Signature:
Printed Name: Thomas LeBlanc	Printed Name:	Printed Name: Jean Lauda
Date: 12-21-16 Time: 1200	Date: Time:	Date: 12/21/16 Time: 1430

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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CHAIN OF CUSTODY RECORD

AETL JOB No. 85922 Page 5 of 12

COMPANY	Converse Consultants
PHONE	(626) 930-1200
PROJECT MANAGER	Michael Van Fleet
FAX	(626) 930-1212
PROJECT NAME	Pardee - Meadowood
PROJECT #	02-41-220-05
SITE NAME AND ADDRESS	

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	Arsenic - 6010	PCBs - 8082	OCPs - 8081	TOC - 9060	TPH - 8015	PAHs - 8310	Lead - 6010	Metals - 6010/7471	VOCs - 8260	Hold	TEST INSTRUCTIONS & COMMENTS
1	A19-3.5	85922.31	12/20/16	8:24	So:1	1 Sleeve	Ice										X	
2	-4	85922.32		8:25													X	
3	A20-2	85922.33		14:26													X	
4	-2.5	85922.34		14:27													X	
5	-3	85922.35		14:28													X	
6	-3.5	85922.36		14:29													X	
7	-4	85922.37		14:30													X	
8	A21-2	85922.38		15:01													X	
9	-2.5	85922.39		15:02													X	
10	-3	85922.40		15:03													X	
11	-3.5	85922.41		15:04													X	
12	-4	85922.42		15:05													X	
13	A22-2	85922.43		15:30													X	
14	-2.5	85922.44		15:32													X	
15	-3	85922.45		15:33													X	

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	15	PROPERLY COOLED Y / N / NA	
CUSTODY SEALS Y / N / NA		SAMPLES INTACT Y / N / NA	
RECEIVED IN GOOD COND. Y / N		SAMPLES ACCEPTED Y / N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ 24 HRS. ☐ 48 HRS. ☐ 72 HRS.

	1.	2.	3.
RELINQUISHED BY SAMPLER: / RELINQUISHED BY:	Signature:	Signature:	Signature:
	Printed Name: Spencer Wagner	Printed Name:	Printed Name:
	Date: 12/21/16 Time: 1200	Date: Time:	Date: 12-24-16 Time: 1430
RECEIVED BY: / RECEIVED BY LABORATORY:	Signature:	Signature:	Signature:
	Printed Name:	Printed Name:	Printed Name:
	Date: 12-24-16 Time: 1200	Date: Time:	Date: 12/24/16 Time: 1430

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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Ordered By

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016-

Telephone: (626)930-1200
Attention: Michael Van Fleet

Project ID: 02-41-220-05
Date Received 12/21/2016
Date Reported 01/10/2017

Job Number	Order Date	Client
85922	12/21/2016	CONVRS

CERTIFICATE OF ANALYSIS
CASE NARRATIVE

AETL received 45 samples with the following specification on 12/21/2016.

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
85922.01	LC3-1.5	12/20/2016	Soil	1
85922.02	F5-2	12/20/2016	Soil	1
85922.06	F6-2	12/20/2016	Soil	1
85922.10	F7-2	12/20/2016	Soil	1
85922.14	F8-2	12/20/2016	Soil	1
85922.03	F5-4	12/20/2016	Soil	1
85922.05	F5-12	12/20/2016	Soil	1
85922.07	F6-4	12/20/2016	Soil	1
85922.09	F6-12	12/20/2016	Soil	1
85922.11	F7-4	12/20/2016	Soil	1
85922.13	F7-12	12/20/2016	Soil	1
85922.15	F8-4	12/20/2016	Soil	1
85922.17	F8-12	12/20/2016	Soil	1
85922.04	F5-8	12/20/2016	Soil	1
85922.08	F6-8	12/20/2016	Soil	1
85922.12	F7-8	12/20/2016	Soil	1
85922.16	F8-8	12/20/2016	Soil	1

Method ^ Submethod	Req Date	Priority	TAT	Units
(8081A)	12/28/2016	2	Normal	ug/Kg
(6010B/7000CAM)	12/28/2016	2	Normal	mg/Kg
(9060)	12/28/2016	2	Normal	mg/Kg
(6010B/7000CAM)	12/28/2016	2	Normal	mg/Kg
(9060)	12/28/2016	2	Normal	mg/Kg

Continued

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Monrovia, CA 91016-

Telephone: (626)930-1200
Attention: Michael Van Fleet

Project ID: 02-41-220-05
Date Received 12/21/2016
Date Reported 01/10/2017

Job Number	Order Date	Client
85922	12/21/2016	CONVRS

CERTIFICATE OF ANALYSIS

CASE NARRATIVE

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
85922.18	A17-2	12/20/2016	Soil	1
85922.19	A17-2.5	12/20/2016	Soil	1
85922.20	A17-3	12/20/2016	Soil	1
85922.21	A17-3.5	12/20/2016	Soil	1
85922.22	A17-4	12/20/2016	Soil	1
85922.23	A18-2	12/20/2016	Soil	1
85922.24	A18-2.5	12/20/2016	Soil	1
85922.25	A18-3	12/20/2016	Soil	1
85922.26	A18-3.5	12/20/2016	Soil	1
85922.27	A18-4	12/20/2016	Soil	1
85922.28	A19-2	12/20/2016	Soil	1
85922.29	A19-2.5	12/20/2016	Soil	1
85922.30	A19-3	12/20/2016	Soil	1
85922.31	A19-3.5	12/20/2016	Soil	1
85922.32	A19-4	12/20/2016	Soil	1
85922.33	A20-2	12/20/2016	Soil	1
85922.34	A20-2.5	12/20/2016	Soil	1
85922.35	A20-3	12/20/2016	Soil	1
85922.36	A20-3.5	12/20/2016	Soil	1
85922.37	A20-4	12/20/2016	Soil	1
85922.38	A21-2	12/20/2016	Soil	1
85922.39	A21-2.5	12/20/2016	Soil	1
85922.40	A21-3	12/20/2016	Soil	1
85922.41	A21-3.5	12/20/2016	Soil	1
85922.42	A21-4	12/20/2016	Soil	1
85922.43	A22-2	12/20/2016	Soil	1
85922.44	A22-2.5	12/20/2016	Soil	1
85922.45	A22-3	12/20/2016	Soil	1

Method ^ Submethod	*Req Date*	*Priority*	*TAT*	*Units*

Continued

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Ordered By

Converse Consultants 717 S Myrtle Ave Monrovia, CA 91016-

Project ID: 02-41-220-05 Date Received 12/21/2016 Date Reported 01/10/2017

Telephone: (626)930-1200
Attention: Michael Van Fleet

Job Number	Order Date	Client
85922	12/21/2016	CONVRS

CERTIFICATE OF ANALYSIS

CASE NARRATIVE

85922.45 A22-3 12/20/2016 Soil 1

Method ^ Submethod	Req Date	Priority	TAT	Units
ARCHIVE	12/28/2016	2	Normal	--

The samples were analyzed as specified on the enclosed chain of custody. Analytical non-conformances have been noted on the report.

Unless otherwise noted, all results of soil and solid samples are based on wet weight.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

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ANALYTICAL RESULTS

Ordered By

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016-

Telephone: (626)930-1200
Attn: Michael Van Fleet
Page: **2**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85922	12/21/2016	CONVRS

Method: (8081A), Organochlorine Pesticides by GC

QC Batch No: 122716EB1

Our Lab I.D.			Method Blank	**85922.01**			
Client Sample I.D.				LC3-1.5			
Date Sampled				12/20/2016			
Date Prepared			12/27/2016	12/27/2016			
Preparation Method			3550B	3550B			
Date Analyzed			12/28/2016	12/28/2016			
Matrix			Soil	Soil			
Units			ug/Kg	ug/Kg			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Aldrin	1.0	2.0	ND	ND			
Chlordane (Total)	1.0	2.0	ND	ND			
Chlordane (alpha)	1.0	2.0	ND	ND			
4,4'-DDD (DDD)	1.0	2.0	ND	ND			
4,4'-DDE (DDE)	1.0	2.0	ND	ND			
4,4'-DDT (DDT)	1.0	2.0	ND	ND			
Dieldrin	1.0	2.0	ND	ND			
Endosulfan 1	1.0	2.0	ND	ND			
Endosulfan 11	1.0	2.0	ND	ND			
Endosulfan sulfate	1.0	2.0	ND	ND			
Endrin	1.0	2.0	ND	ND			
Endrin aldehyde	1.0	2.0	ND	ND			
Endrin ketone	1.0	2.0	ND	ND			
Chlordane (gamma)	1.0	2.0	ND	ND			
Heptachlor	1.0	2.0	ND	ND			
Heptachlor epoxide	1.0	2.0	ND	ND			
alpha-Hexachlorocyclohexane (Alpha-BHC)	1.0	2.0	ND	ND			
beta-Hexachlorocyclohexane (Betta-BHC)	1.0	2.0	ND	ND			
delta-Hexachlorocyclohexane (Delta-BHC)	1.0	2.0	ND	ND			
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	1.0	2.0	ND	ND			
Methoxychlor	5.0	10.0	ND	ND			
Toxaphene	85.0	170.0	ND	ND			

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ANALYTICAL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85922	12/21/2016	CONVRS

Method: (8081A), Organochlorine Pesticides by GC

Our Lab I.D.			Method Blank	**85922.01**			
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**			
Decachlorobiphenyl	30-150		117	115			
Tetrachloro-m-xylene	30-150		110	129			

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85922	12/21/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1227162C4

Our Lab I.D.			Method Blank	85922.02	85922.04	85922.06	85922.08
Client Sample I.D.				F5-2	F5-8	F6-2	F6-8
Date Sampled				12/20/2016	12/20/2016	12/20/2016	12/20/2016
Date Prepared			12/27/2016	12/27/2016	12/27/2016	12/27/2016	12/27/2016
Preparation Method			3050B	3050B	3050B	3050B	3050B
Date Analyzed			12/28/2016	12/28/2016	12/28/2016	12/28/2016	12/28/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Antimony	1.0	5.0	ND	ND	ND	ND	ND
Arsenic	1.0	5.0	ND	ND	ND	ND	ND
Barium	2.5	5.0	ND	107	94.0	76.4	101
Beryllium	1.3	2.5	ND	ND	ND	ND	ND
Cadmium	1.3	2.5	ND	ND	ND	ND	ND
Chromium	2.5	5.0	ND	5.56	7.97	7.90	14.2
Cobalt	2.5	5.0	ND	6.19	7.30	5.45	6.94
Copper	2.5	5.0	ND	6.41	6.91	5.81	7.37
Lead	2.5	5.0	ND	ND	ND	ND	ND
Mercury (By EPA 7471)	0.1	0.2	ND	ND	ND	ND	ND
Molybdenum	2.5	5.0	ND	ND	ND	ND	ND
Nickel	2.5	5.0	ND	ND	2.89J	3.22J	3.80J
Selenium	1.0	5.0	ND	ND	ND	ND	ND
Silver	2.5	5.0	ND	ND	ND	ND	ND
Thallium	1.0	5.0	ND	ND	ND	ND	ND
Vanadium	2.5	5.0	ND	48.2	48.7	40.9	63.8
Zinc	2.5	5.0	ND	46.9	45.8	28.5	43.6

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85922	12/21/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1227162C4

Our Lab I.D.			85922.10	85922.12	85922.14	85922.16	
Client Sample I.D.			F7-2	F7-8	F8-2	F8-8	
Date Sampled			12/20/2016	12/20/2016	12/20/2016	12/20/2016	
Date Prepared			12/27/2016	12/27/2016	12/27/2016	12/27/2016	
Preparation Method			3050B	3050B	3050B	3050B	
Date Analyzed			12/28/2016	12/28/2016	12/28/2016	12/28/2016	
Matrix			Soil	Soil	Soil	Soil	
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	
Dilution Factor			1	1	1	1	
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	
Antimony	1.0	5.0	ND	ND	ND	ND	
Arsenic	1.0	5.0	ND	ND	ND	ND	
Barium	2.5	5.0	6.63	117	103	103	
Beryllium	1.3	2.5	ND	ND	ND	ND	
Cadmium	1.3	2.5	ND	ND	ND	ND	
Chromium	2.5	5.0	ND	6.50	14.8	11.1	
Cobalt	2.5	5.0	ND	8.35	11.1	7.44	
Copper	2.5	5.0	ND	5.52	7.89	9.60	
Lead	2.5	5.0	ND	ND	ND	ND	
Mercury (By EPA 7471)	0.1	0.2	ND	ND	ND	ND	
Molybdenum	2.5	5.0	ND	ND	ND	ND	
Nickel	2.5	5.0	ND	ND	4.68J	4.11J	
Selenium	1.0	5.0	ND	ND	ND	ND	
Silver	2.5	5.0	ND	ND	ND	ND	
Thallium	1.0	5.0	ND	ND	ND	ND	
Vanadium	2.5	5.0	4.10J	63.9	67.6	63.5	
Zinc	2.5	5.0	2.71J	44.0	40.7	50.4	

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85922	12/21/2016	CONVRS

Method: (9060), Total Organic Carbon (SW-846)

QC Batch No: G1230TOCL1

Our Lab I.D.			Method Blank	85922.03	85922.04	85922.05	85922.07
Client Sample I.D.				F5-4	F5-8	F5-12	F6-4
Date Sampled				12/20/2016	12/20/2016	12/20/2016	12/20/2016
Date Prepared			12/30/2016	12/30/2016	12/30/2016	12/30/2016	12/30/2016
Preparation Method			9060	9060	9060	9060	9060
Date Analyzed			12/30/2016	12/30/2016	12/30/2016	12/30/2016	12/30/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Carbon, Total Organic (TOC)	500	500	ND	ND	ND	ND	ND

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85922	12/21/2016	CONVRS

Method: (9060), Total Organic Carbon (SW-846)

QC Batch No: G1230TOCL1

Our Lab I.D.			85922.08	85922.09	85922.11	85922.12	85922.13
Client Sample I.D.			F6-8	F6-12	F7-4	F7-8	F7-12
Date Sampled			12/20/2016	12/20/2016	12/20/2016	12/20/2016	12/20/2016
Date Prepared			12/30/2016	12/30/2016	12/30/2016	12/30/2016	12/30/2016
Preparation Method			9060	9060	9060	9060	9060
Date Analyzed			12/30/2016	12/30/2016	12/30/2016	12/30/2016	12/30/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Carbon, Total Organic (TOC)	500	500	ND	ND	ND	ND	710

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85922	12/21/2016	CONVRS

Method: (9060), Total Organic Carbon (SW-846)

QC Batch No: G1230TOCL1

Our Lab I.D.			85922.15	85922.16	85922.17		
Client Sample I.D.			F8-4	F8-8	F8-12		
Date Sampled			12/20/2016	12/20/2016	12/20/2016		
Date Prepared			12/30/2016	12/30/2016	12/30/2016		
Preparation Method			9060	9060	9060		
Date Analyzed			12/30/2016	12/30/2016	12/30/2016		
Matrix			Soil	Soil	Soil		
Units			mg/Kg	mg/Kg	mg/Kg		
Dilution Factor			1	1	1		
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**		
Carbon, Total Organic (TOC)	500	500	ND	ND	ND		

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85922	12/21/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1227162C4; Dup or Spiked Sample: 85922.02; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Antimony	0.00	50.0	47.0	94.0	50.0	46.7	93.4	<1	75-125	<15
Arsenic	0.00	50.0	50.4	101	50.0	50.2	100	<1	75-125	<15
Barium	107	50.0	136 M	58.0	50.0	137 M	60.0	3.39	75-125	<15
Beryllium	0.00	50.0	53.5	107	50.0	53.9	108	<1	75-125	<15
Cadmium	2.51	50.0	47.3	89.6	50.0	47.7	90.4	<1	75-125	<15
Chromium	5.56	50.0	56.1	101	50.0	55.6	100	<1	75-125	<15
Cobalt	6.19	50.0	53.9	95.4	50.0	53.5	94.6	<1	75-125	<15
Copper	6.41	50.0	56.5	100	50.0	57.1	101	<1	75-125	<15
Lead	0.00	50.0	44.1	88.2	50.0	43.8	87.6	<1	75-125	<15
Mercury (By EPA 7471)	0.00	0.500	0.565	113	0.500	0.545	109	3.6	75-125	<15
Molybdenum	0.00	50.0	48.8	97.6	50.0	48.3	96.6	1.03	75-125	<15
Nickel	0.00	50.0	48.8	97.6	50.0	48.3	96.6	1.03	75-125	<15
Selenium	0.00	50.0	40.9	81.8	50.0	38.8	77.6	5.27	75-125	<15
Silver	0.00	50.0	45.7	91.4	50.0	46.1	92.2	<1	75-125	<15
Thallium	0.00	50.0	39.4	78.8	50.0	39.3	78.6	<1	75-125	<15
Vanadium	48.2	50.0	97.6	98.8	50.0	98.5	101	2.20	75-125	<15
Zinc	46.9	50.0	87.0	80.2	50.0	87.7	81.6	1.73	75-125	<15

QC Batch No: 1227162C4; Dup or Spiked Sample: 85922.02; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Antimony	50.0	47.5	95.0	50.0	47.6	95.2	<1	75-125	<15	
Arsenic	50.0	47.2	94.4	50.0	47.6	95.2	<1	75-125	<15	
Barium	50.0	48.1	96.2	50.0	48.4	96.8	<1	75-125	<15	
Beryllium	50.0	52.5	105	50.0	53.6	107	1.89	75-125	<15	
Cadmium	50.0	49.2	98.4	50.0	49.5	99.0	<1	75-125	<15	
Chromium	50.0	48.1	96.2	50.0	48.4	96.8	<1	75-125	<15	
Cobalt	50.0	48.6	97.2	50.0	48.8	97.6	<1	75-125	<15	
Copper	50.0	48.0	96.0	50.0	48.2	96.4	<1	75-125	<15	
Lead	50.0	47.7	95.4	50.0	48.0	96.0	<1	75-125	<15	
Mercury (By EPA 7471)	0.500	0.492	98.4	0.500	0.449	89.8	9.1	75-125	<15	

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QUALITY CONTROL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85922	12/21/2016	CONVRS

Method: (6010B/7000CAM), Title 22 Metals (SW-846)

QC Batch No: 1227162C4; Dup or Spiked Sample: 85922.02; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Molybdenum	50.0	47.0	94.0	50.0	47.4	94.8	<1	75-125	<15	
Nickel	50.0	48.3	96.6	50.0	48.6	97.2	<1	75-125	<15	
Selenium	50.0	47.8	95.6	50.0	48.7	97.4	1.87	75-125	<15	
Silver	50.0	48.2	96.4	50.0	48.4	96.8	<1	75-125	<15	
Thallium	50.0	48.7	97.4	50.0	48.9	97.8	<1	75-125	<15	
Vanadium	50.0	48.4	96.8	50.0	48.7	97.4	<1	75-125	<15	
Zinc	50.0	50.7	101	50.0	50.9	102	<1	75-125	<15	

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85922	12/21/2016	CONVRS

Method: (8081A), Organochlorine Pesticides by GC

QC Batch No: 122716EB1; Dup or Spiked Sample: 85921.08; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: ug/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Aldrin	0.00	20.0	14.4	72.0	20.0	13.2	66.0	8.7	40-150	<40
4,4'-DDT (DDT)	0.00	50.0	51.5	103	50.0	43.0	86.0	18.0	40-150	<40
Dieldrin	0.00	50.0	57.0	114	50.0	38.4	76.8	39.0	40-150	<40
Endrin	0.00	50.0	37.1	74.2	50.0	32.3	64.6	13.8	40-150	<40
Heptachlor	0.00	20.0	21.4	107	20.0	17.6	88.0	19.5	40-150	<40
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	0.00	20.0	18.9	94.5	20.0	15.6	78.0	19.1	40-150	<40
Surrogates										
Decachlorobiphenyl	0.00	50.0	72.5	145	50.0	71.5	143	1.38	30-150	<40
Tetrachloro-m-xylene	0.00	50.0	46.2	92.4	50.0	29.1	58.2	37.0	30-150	<40

QC Batch No: 122716EB1; Dup or Spiked Sample: 85921.08; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: ug/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS/LCSD % Limit						
Aldrin	20.0	13.6	68.0	50-150						
4,4'-DDT (DDT)	50.0	47.5	95.0	50-150						
Dieldrin	50.0	47.0	94.0	50-150						
Endrin	50.0	29.6	59.2	50-150						
Heptachlor	20.0	17.5	87.5	50-150						
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	20.0	15.7	78.5	50-150						
Surrogates										
Decachlorobiphenyl	50.0	57.9	116	30-150						
Tetrachloro-m-xylene	50.0	41.8	83.6	30-150						

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85922	12/21/2016	CONVRS

Method: (9060), Total Organic Carbon (SW-846)

QC Batch No: G1230TOCL1; Dup or Spiked Sample: 85922.03; LCS: Clean Sand; QC Prepared: 12/30/2016; QC Analyzed: 12/30/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Carbon, Total Organic (TOC)	0.00	30,000	29,400	98.0	30,000	31,200	104	5.9	75-125	<25

QC Batch No: G1230TOCL1; Dup or Spiked Sample: 85922.03; LCS: Clean Sand; QC Prepared: 12/30/2016; QC Analyzed: 12/30/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Carbon, Total Organic (TOC)	6,000	6,720	112	6,000	6,600	110	1.8	80-120	<20	

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WORK ORDER NUMBER: 16-12-2391

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Analytical Report For
Client: AETL
Client Project Name: 85922
Attention: Jim Lin
2834 North Naomi Street
Burbank, CA 91504-2023

Approved for release on 01/04/2017 by:
Don Burley
Project Manager

ResultLink ▸

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Work Order Number: 16-12-2391

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Work Order Narrative

Work Order: 16-12-2391 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 12/23/16. They were assigned to Work Order 16-12-2391.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Sample Summary

Client:	AETL	Work Order:	16-12-2391
	2834 North Naomi Street	Project Name:	85922
	Burbank, CA 91504-2023	PO Number:	21810-sub
		Date/Time Received:	12/23/16 11:55
		Number of Containers:	12
Attn:	Jim Lin		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
85922.03	16-12-2391-1	12/20/16 15:21	1	Solid
85922.04	16-12-2391-2	12/20/16 15:22	1	Solid
85922.05	16-12-2391-3	12/20/16 15:23	1	Solid
85922.07	16-12-2391-4	12/20/16 14:36	1	Solid
85922.08	16-12-2391-5	12/20/16 14:37	1	Solid
85922.09	16-12-2391-6	12/20/16 14:38	1	Solid
85922.11	16-12-2391-7	12/20/16 14:41	1	Solid
85922.12	16-12-2391-8	12/20/16 14:42	1	Solid
85922.13	16-12-2391-9	12/20/16 14:43	1	Solid
85922.15	16-12-2391-10	12/20/16 12:26	1	Solid
85922.16	16-12-2391-11	12/20/16 12:27	1	Solid
85922.17	16-12-2391-12	12/20/16 12:28	1	Solid

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Analytical Report

AETL
2834 North Naomi Street
Burbank, CA 91504-2023

Project: 85922

Date Received: 12/23/16
Work Order: 16-12-2391
Preparation: N/A
Method: ASTM D-2216 (M)
Units: %

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.03	16-12-2391-1-A	12/20/16 15:21	Solid	N/A	12/28/16	12/28/16 18:00	G1228MOIB1

Parameter	Result	RL	DF	Qualifiers
Moisture	12	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.04	16-12-2391-2-A	12/20/16 15:22	Solid	N/A	12/28/16	12/28/16 18:00	G1228MOIB1

Parameter	Result	RL	DF	Qualifiers
Moisture	10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.05	16-12-2391-3-A	12/20/16 15:23	Solid	N/A	12/28/16	12/28/16 18:00	G1228MOIB1

Parameter	Result	RL	DF	Qualifiers
Moisture	9.4	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.07	16-12-2391-4-A	12/20/16 14:36	Solid	N/A	12/28/16	12/28/16 18:00	G1228MOIB1

Parameter	Result	RL	DF	Qualifiers
Moisture	9.8	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.08	16-12-2391-5-A	12/20/16 14:37	Solid	N/A	12/28/16	12/28/16 18:00	G1228MOIB1

Parameter	Result	RL	DF	Qualifiers
Moisture	11	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.09	16-12-2391-6-A	12/20/16 14:38	Solid	N/A	12/28/16	12/28/16 18:00	G1228MOIB1

Parameter	Result	RL	DF	Qualifiers
Moisture	10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.11	16-12-2391-7-A	12/20/16 14:41	Solid	N/A	12/28/16	12/28/16 18:00	G1228MOIB1

Parameter	Result	RL	DF	Qualifiers
Moisture	11	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.12	16-12-2391-8-A	12/20/16 14:42	Solid	N/A	12/28/16	12/28/16 18:00	G1228MOIB1

Parameter	Result	RL	DF	Qualifiers
Moisture	10	0.10	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AETL		Date Received:	12/23/16
2834 North Naomi Street		Work Order:	16-12-2391
Burbank, CA 91504-2023		Preparation:	N/A
		Method:	ASTM D-2216 (M)
		Units:	%
Project: 85922			Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.13	**16-12-2391-9-A**	**12/20/16 14:43**	**Solid**	**N/A**	**12/28/16**	**12/28/16 18:00**	**G1228MOIB1**

Parameter	Result	RL	DF	Qualifiers
Moisture	10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.15	**16-12-2391-10-A**	**12/20/16 12:26**	**Solid**	**N/A**	**12/28/16**	**12/28/16 18:00**	**G1228MOIB1**

Parameter	Result	RL	DF	Qualifiers
Moisture	6.2	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.16	**16-12-2391-11-A**	**12/20/16 12:27**	**Solid**	**N/A**	**12/28/16**	**12/28/16 18:00**	**G1228MOIB1**

Parameter	Result	RL	DF	Qualifiers
Moisture	12	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.17	**16-12-2391-12-A**	**12/20/16 12:28**	**Solid**	**N/A**	**12/28/16**	**12/28/16 18:00**	**G1228MOIB1**

Parameter	Result	RL	DF	Qualifiers
Moisture	8.9	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-014-6593**	**N/A**	**Solid**	**N/A**	**12/28/16**	**12/28/16 18:00**	**G1228MOIB1**

Parameter	Result	RL	DF	Qualifiers
Moisture	ND	0.10	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AETL	Date Received:	12/23/16
2834 North Naomi Street	Work Order:	16-12-2391
Burbank, CA 91504-2023	Preparation:	N/A
	Method:	EPA 9060A
	Units:	mg/kg
Project: 85922		Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.03	**16-12-2391-1-A**	**12/20/16 15:21**	**Solid**	**TOC 9**	**12/30/16**	**12/30/16 16:52**	**G1230TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.04	**16-12-2391-2-A**	**12/20/16 15:22**	**Solid**	**TOC 9**	**12/30/16**	**12/30/16 16:52**	**G1230TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.05	**16-12-2391-3-A**	**12/20/16 15:23**	**Solid**	**TOC 9**	**12/30/16**	**12/30/16 16:52**	**G1230TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.07	**16-12-2391-4-A**	**12/20/16 14:36**	**Solid**	**TOC 9**	**12/30/16**	**12/30/16 16:52**	**G1230TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.08	**16-12-2391-5-A**	**12/20/16 14:37**	**Solid**	**TOC 9**	**12/30/16**	**12/30/16 16:52**	**G1230TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.09	**16-12-2391-6-A**	**12/20/16 14:38**	**Solid**	**TOC 9**	**12/30/16**	**12/30/16 16:52**	**G1230TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.11	**16-12-2391-7-A**	**12/20/16 14:41**	**Solid**	**TOC 9**	**12/30/16**	**12/30/16 16:52**	**G1230TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.12	**16-12-2391-8-A**	**12/20/16 14:42**	**Solid**	**TOC 9**	**12/30/16**	**12/30/16 16:52**	**G1230TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AETL	Date Received:	12/23/16
2834 North Naomi Street	Work Order:	16-12-2391
Burbank, CA 91504-2023	Preparation:	N/A
	Method:	EPA 9060A
	Units:	mg/kg
Project: 85922		Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.13	**16-12-2391-9-A**	**12/20/16 14:43**	**Solid**	**TOC 9**	**12/30/16**	**12/30/16 16:52**	**G1230TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	710	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.15	**16-12-2391-10-A**	**12/20/16 12:26**	**Solid**	**TOC 9**	**12/30/16**	**12/30/16 16:52**	**G1230TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.16	**16-12-2391-11-A**	**12/20/16 12:27**	**Solid**	**TOC 9**	**12/30/16**	**12/30/16 16:52**	**G1230TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
85922.17	**16-12-2391-12-A**	**12/20/16 12:28**	**Solid**	**TOC 9**	**12/30/16**	**12/30/16 16:52**	**G1230TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-06-013-1651**	**N/A**	**Solid**	**TOC 9**	**12/30/16**	**12/30/16 16:52**	**G1230TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	500	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

AETL		Date Received:	12/23/16
2834 North Naomi Street		Work Order:	16-12-2391
Burbank, CA 91504-2023		Preparation:	N/A
		Method:	EPA 9060A
Project: 85922			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
85922.03	**Sample**	**Solid**	**TOC 9**	**12/30/16**	**12/30/16 16:52**	**G1230TOCS1**
85922.03	**Matrix Spike**	**Solid**	**TOC 9**	**12/30/16**	**12/30/16 16:52**	**G1230TOCS1**
85922.03	**Matrix Spike Duplicate**	**Solid**	**TOC 9**	**12/30/16**	**12/30/16 16:52**	**G1230TOCS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	ND	30000	29450	98	31220	104	75-125	6	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

AETL		Date Received:	12/23/16
2834 North Naomi Street		Work Order:	16-12-2391
Burbank, CA 91504-2023		Preparation:	N/A
		Method:	ASTM D-2216 (M)
Project: 85922			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
85922.11	**Sample**	**Solid**	**N/A**	**12/28/16 00:00**	**12/28/16 18:00**	**G1228MOID1**
85922.11	**Sample Duplicate**	**Solid**	**N/A**	**12/28/16 00:00**	**12/28/16 18:00**	**G1228MOID1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Moisture	11.00	11.50	4	0-10	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

AETL	Date Received: 12/23/16
2834 North Naomi Street	Work Order: 16-12-2391
Burbank, CA 91504-2023	Preparation: N/A
	Method: EPA 9060A
Project: 85922	Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-06-013-1651	**LCS**	**Solid**	**TOC 9**	**12/30/16**	**12/30/16 16:52**	**G1230TOCL1**
099-06-013-1651	**LCSD**	**Solid**	**TOC 9**	**12/30/16**	**12/30/16 16:52**	**G1230TOCL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	6000	6722	112	6572	110	80-120	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 16-12-2391 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
ASTM D-2216 (M)	N/A	1009	N/A	1
EPA 9060A	N/A	735	TOC 9	1

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Glossary of Terms and Qualifiers

Work Order: 16-12-2391 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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~~American Environmental Testing Laboratory Inc.~~

2834 & 2908 North Naomi Street, Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
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CHAIN OF CUSTODY RECORD

№ 99471

AETL JOB No. **16-12-2391** Page 1 of 1

COMPANY	AETL
PROJECT MANAGER	Jim Liu
COMPANY ADDRESS	2834 N. Naomi St, Burbank CA 91504
PHONE	818-845-8200
FAX	818-845-8840
PROJECT NAME	
PROJECT #	85922
SITE NAME AND ADDRESS	
PO #	21810_SUB

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	TOC									TEST INSTRUCTIONS & COMMENTS
1	85922.03		12/20/16	1524	Soil	4 oz Jar	Ice	X									
2	.04			1522				X									
3	.05			1523				X									
4	.07			1436				X									
5	.08			1437				X									
6	.09			1438				X									
7	.11			1441				X									
8	.12			1442				X									
9	.13			1443				X									
10	.15			1226				X									
11	.16			1227				X									
12	.17			1228				X									
13																	
14																	
15																	

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS		PROPERLY COOLED Y / N / NA	
CUSTODY SEALS Y / N / NA		SAMPLES INTACT Y/ N / NA	
RECEIVED IN GOOD COND. Y / N		SAMPLES ACCEPTED Y / N	

TURN AROUND TIME

☐ NORMAL ☐ RUSH ☐ SAME DAY ☐ NEXT DAY ☐ 2 DAYS ☐ 3 DAYS

DATA DELIVERABLE REQUIRED

☐ HARD COPY ☐ PDF ☐ GEOTRACKER (GLOBAL ID) _____ ☐ OTHER (PLEASE SPECIFY) _____

	RELINQUISHED BY SAMPLER: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature:			
Printed Name:	[illegible] P.		
Date: / Time:	12/23/16		

	RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY LABORATORY: 3.
Signature:			
Printed Name:	Yan Liao		
Date: / Time:	12/23/16 1155		

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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WORK ORDER NUMBER: 16-12- 2391

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: American Environmental Testing Laboratory

DATE: 12 / 23 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): 2.5 °C (w/ CF): 2.5 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 107

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 107

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: AZ6

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AG**Js**

☐ 500PB ☑ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☑ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, Labeled/Checked by: AMo

s = H_2SO_4, **u** = ultra-pure, **x** = Na_2SO_3+$NaHSO_4.H_2O$, **znna** = Zn $(CH_3CO_2)_2$ + NaOH Reviewed by: 1053

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Data Qualifiers and Descriptors

Data Qualifier:

#:	Recovery is not within acceptable control limits.
*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

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Ordered By

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016-

Telephone: (626)930-1200
Attention: Michael Van Fleet

Number of Pages	**30**
Date Received	**12/21/2016**
Date Reported	**01/12/2017**

Job Number	Order Date	Client
85924	12/21/2016	CONVRS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

Enclosed please find results of analyses of 6 soil and 1 water samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Attachment: 6 pages

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.

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CHAIN OF CUSTODY RECORD

AETL JOB No. 85924

COMPANY	Converse Consultants
PHONE	(626) 930-1200
PROJECT MANAGER	Michael Van Fleet
FAX	(626) 930-1212
PROJECT NAME	Pardee - Meadowood
PROJECT #	02-41-220-05
SITE NAME AND ADDRESS	

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	Arsenic - 6010	PCBs - 8082	OCPs - 8081	TOC - 9060	TPH - 8015	PAHs - 8310	Lead - 6010	Metals - 6010/7471	VOCs - 8260	TPH
1	L4-3.5	85924.01	12-20-16	10:19	So:1	1 Sleeve	Ice										X
2	-4	85924.02		10:20													X
3	L5-2	85924.03		10:26													X
4	-2.5	85924.04		10:27													X
5	-3	85924.05		10:28													X
6	-3.5	85924.06		10:29													X
7	-4	85924.07		10:36													X
8	L6-2	85924.08		10:36													X
9	-2.5	85924.09		10:37													X
10	-3	85924.10		10:38													X
11	-3.5	85924.11		10:39													X
12	-4	85924.12		10:40													X
13	L7-2	85924.13		10:46													X
14	-2.5	85924.14		10:47													X
15	-3	85924.15		10:48													Y

ANALYSIS REQUESTED

TEST INSTRUCTIONS & COMMENTS

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	15	PROPERLY COOLED Y / N / NA	
CUSTODY SEALS Y / N / NA		SAMPLES INTACT Y / N / NA	
RECEIVED IN GOOD COND Y / N		SAMPLES ACCEPTED Y / N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ 24 HRS. ☐ 48 HRS. ☐ 72 HRS.

	1.	2.	3.
RELINQUISHED BY SAMPLER:	Signature:	RELINQUISHED BY: Signature:	RELINQUISHED BY: Signature:
	Printed Name: Reiner Wagner	Printed Name:	Printed Name: Thomas Peterson
	Date: 12/21/16 Time: 1200	Date: Time:	Date: 12-21-16 Time: 1430
RECEIVED BY:	Signature:	RECEIVED BY: Signature:	RECEIVED BY LABORATORY: AETL Signature:
	Printed Name: Thomas DeBusco	Printed Name:	Printed Name: Leah Lauda
	Date: 12-21-16 Time: 1200	Date: Time:	Date: 12/21/16 Time: 1430

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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CHAIN OF CUSTODY RECORD

AETL JOB No. 85924

COMPANY: Converse Consultants
PHONE: (626) 930-1200
PROJECT MANAGER: Michael Van Fleet
FAX: (626) 930-1212
PROJECT NAME: Pardee - Meadowood
PROJECT #: 02-41-220-05
SITE NAME AND ADDRESS:

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	Arsenic - 6010	PCBs - 8082	OCPs - 8081	TOC - 9060	TPH - 8015	PAHs - 8310	Lead - 6010	Metals - 6010/7471	VOCs - 8260	Hold	TEST INSTRUCTIONS & COMMENTS
1	L7-3.5	85924.16	12-20-16	10:49	Soil	1 sleeve	Ice										X	
2	-4	85924.17		10:50													X	
3	L8-2	85924.18		10:56													X	
4	-2.5	85924.19		10:57													X	
5	-3	85924.20		10:58													X	
6	-3.5	85924.21		10:59													X	
7	-4	85924.22		11:00													X	
8	L9-2	85924.23		11:06													X	
9	-2.5	85924.24		11:07													X	
10	-3	85924.25		11:08													X	
11	-3.5	85924.26		11:09													X	
12	-4	85924.27		11:10													X	
13	L10-2	85924.28		11:16													X	
14	-2.5	85924.29		11:17													X	
15	-3	85924.30		11:18													X	

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	15	PROPERLY COOLED (Y) N / NA	
CUSTODY SEALS Y (N) NA		SAMPLES INTACT (Y) N / NA	
RECEIVED IN GOOD COND. (Y) N		SAMPLES ACCEPTED (Y) N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY 24 HRS. ☐ 48 HRS. ☐ 72 HRS.

RELINQUISHED BY SAMPLER: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature:	Signature:	Signature:
Printed Name: Spencer Wagner	Printed Name:	Printed Name: Thomas LeBoeuf
Date: 12/21/16 Time: 1700	Date: Time:	Date: 12-21-16 Time: 1030
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY LABORATORY: 3.**
Signature:	Signature:	Signature:
Printed Name: Thomas LeBoeuf	Printed Name:	Printed Name: Ligia Conde
Date: 12-21-16 Time: 1700	Date: Time:	Date: 12/21/16 Time: 1430

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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CHAIN OF CUSTODY RECORD

AETL JOB No. 85924

COMPANY: Converse Consultants
PHONE: (626) 930-1200
PROJECT MANAGER: Michael Van Fleet
FAX: (626) 930-1212
PROJECT NAME: Pardee - Meadowood
PROJECT #: 02-41-220-05
SITE NAME AND ADDRESS:

	SAMPLE ID	LAB ID	DATE	TIME	MATRIX	CONTAINER NUMBER/SIZE	PRES.	Arsenic - 6010	PCBs - 8082	OCPs - 8081	TOC - 9060	TPH - 8015	PAHs - 8310	Lead - 6010	Metals - 6010/7471	VOCs - 8260	pH-H	TEST INSTRUCTIONS & COMMENTS
1	L10-3.5	85924.31	12-20-16	11:19	Soil	1 Sleeve	Ice										X	
2	-4	85924.32	↓	11:20	"	"	"										X	
3	EB-1	85924.33	↓	11:30	Water	11 bottles	"		X	X	X	X			X	X		
4	DA11	85924.34	↓	11:40	Soil	1 Sleeve	"	X	X									
5	~~DL1-1.5~~ DL1-1.5	85924.35	↓	9:44	↓	1 JAR	"							X				
6	DL2-1.5	85924.36	↓	9:54	↓	↓	"							X				
7	DL3-1.5	85924.37	↓	10:04	↓	↓	"							X				
8	DL4-1.5	85924.38	↓	10:14	↓	↓	"							X				
9	DLC1	83924.39	↓	—	↓	↓				X								Prepare Composite Sample DLC-1 From Discrete Samples DL1, DL2, DL3 & DL4
10																		
11																		
12																		
13																		
14																		
15																		

SAMPLE RECEIPT - TO BE FILLED BY LABORATORY

TOTAL NUMBER OF CONTAINERS	19	PROPERLY COOLED Y / N / NA	
CUSTODY SEALS Y / N / NA		SAMPLES INTACT Y / N / NA	
RECEIVED IN GOOD COND. Y / N		SAMPLES ACCEPTED Y / N	

TURN AROUND TIME

☒ NORMAL ☐ RUSH ☐ SAME DAY ☐ 24 HRS. ☐ 48 HRS. ☐ 72 HRS.

RELINQUISHED BY SAMPLER: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature:	Signature:	Signature:
Printed Name: Stanley Wong	Printed Name:	Printed Name: Thomas Lobaco
Date: 12/21/16 Time: 1200	Date: Time:	Date: 12-21-16 Time: 1430
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY LABORATORY: AETL 3.**
Signature:	Signature:	Signature:
Printed Name: Thomas Lobaco	Printed Name:	Printed Name: Jean Lando
Date: 12-21-16 Time: 1420	Date: Time:	Date: 12/21/16 Time: 1430

DISTRIBUTION: WHITE - Laboratory, CANARY - Laboratory, PINK - Project/Account Manager, YELLOW - Sampler/Originator

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Ordered By

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Monrovia, CA 91016-

Telephone: (626)930-1200
Attention: Michael Van Fleet

Project ID: 02-41-220-05
Date Received 12/21/2016
Date Reported 01/12/2017

Job Number	Order Date	Client
85924	12/21/2016	CONVRS

CERTIFICATE OF ANALYSIS
CASE NARRATIVE

AETL received 39 samples with the following specification on 12/21/2016.

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
85924.33	EB-1	12/20/2016	Aqueous	11

Method ^ Submethod	Req Date	Priority	TAT	Units
6010/7000CAM	12/28/2016	2	Normal	mg/L
8081A	12/28/2016	2	Normal	ug/L
8082	12/28/2016	2	Normal	ug/L
8260B	12/28/2016	2	Normal	ug/L
8310	12/28/2016	2	Normal	ug/L
M8015D ^ C13-C40	12/28/2016	2	Normal	mg/L
M8015G	12/28/2016	2	Normal	mg/L
SM5310B ^ TOTAL	12/28/2016	2	Normal	mg/L

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
85924.01	L4-3.5	12/20/2016	Soil	1
85924.02	L4-4	12/20/2016	Soil	1
85924.03	L5-2	12/20/2016	Soil	1
85924.04	L5-2.5	12/20/2016	Soil	1
85924.05	L5-3	12/20/2016	Soil	1
85924.06	L5-3.5	12/20/2016	Soil	1
85924.07	L5-4	12/20/2016	Soil	1
85924.08	L6-2	12/20/2016	Soil	1
85924.09	L6-2.5	12/20/2016	Soil	1
85924.10	L6-3	12/20/2016	Soil	1
85924.11	L6-3.5	12/20/2016	Soil	1
85924.12	L6-4	12/20/2016	Soil	1
85924.13	L7-2	12/20/2016	Soil	1
85924.14	L7-2.5	12/20/2016	Soil	1

Continued

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Project ID: 02-41-220-05
Date Received 12/21/2016
Date Reported 01/12/2017

Job Number	Order Date	Client
85924	12/21/2016	CONVRS

CERTIFICATE OF ANALYSIS

CASE NARRATIVE

85924.15	L7-3	12/20/2016	Soil	1
85924.16	L7-3.5	12/20/2016	Soil	1
85924.17	L7-4	12/20/2016	Soil	1
85924.18	L8-2	12/20/2016	Soil	1
85924.19	L8-2.5	12/20/2016	Soil	1
85924.20	L8-3	12/20/2016	Soil	1
85924.21	L8-3.5	12/20/2016	Soil	1
85924.22	L8-4	12/20/2016	Soil	1
85924.23	L9-2	12/20/2016	Soil	1
85924.24	L9-2.5	12/20/2016	Soil	1
85924.25	L9-3	12/20/2016	Soil	1
85924.26	L9-3.5	12/20/2016	Soil	1
85924.27	L9-4	12/20/2016	Soil	1
85924.28	L10-2	12/20/2016	Soil	1
85924.29	L10-2.5	12/20/2016	Soil	1
85924.30	L10-3	12/20/2016	Soil	1
85924.31	L10-3.5	12/20/2016	Soil	1
85924.32	L10-4	12/20/2016	Soil	1

Method ^ Submethod	Req Date	Priority	TAT	Units
ARCHIVE	12/28/2016	2	Normal	--

85924.34	DA11	12/20/2016	Soil	1

Method ^ Submethod	Req Date	Priority	TAT	Units
(6010BSCAN) ^ AS	12/28/2016	2	Normal	mg/Kg
(8082)	12/28/2016	2	Normal	ug/Kg

85924.35	DL1-1.5	12/20/2016	Soil	1
85924.36	DL2-1.5	12/20/2016	Soil	1
85924.37	DL3-1.5	12/20/2016	Soil	1
85924.38	DL4-1.5	12/20/2016	Soil	1

Method ^ Submethod	Req Date	Priority	TAT	Units
(6010B.LEAD)	12/28/2016	2	Normal	mg/Kg

Continued

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Project ID: 02-41-220-05
Date Received 12/21/2016
Date Reported 01/12/2017

Job Number	Order Date	Client
85924	12/21/2016	CONVRS

CERTIFICATE OF ANALYSIS

CASE NARRATIVE

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
85924.39	DLC1	12/20/2016	Soil	1

Method ^ Submethod	Req Date	Priority	TAT	Units
(8081A)	12/28/2016	2	Normal	ug/Kg

The samples were analyzed as specified on the enclosed chain of custody.
No analytical non-conformances were encountered.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

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ANALYTICAL RESULTS

Ordered By

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016-

Telephone: (626)930-1200
Attn: Michael Van Fleet
Page: **2**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: 8260B, Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1223161A1

Our Lab I.D.			Method Blank	**85924.33**			
Client Sample I.D.				EB-1			
Date Sampled				12/20/2016			
Date Prepared			12/23/2016	12/20/2016			
Preparation Method			5030B	5030B			
Date Analyzed			12/23/2016	12/23/2016			
Matrix			Aqueous	Aqueous			
Units			ug/L	ug/L			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Acetone	10	10	ND	ND			
Benzene	0.5	1.0	ND	ND			
Bromobenzene (Phenyl bromide)	0.5	1.0	ND	ND			
Bromochloromethane	0.5	1.0	ND	ND			
Bromodichloromethane	0.5	1.0	ND	ND			
Bromoform (Tribromomethane)	2.5	5.0	ND	ND			
Bromomethane (Methyl bromide)	1.5	3.0	ND	ND			
2-Butanone (MEK)	5.0	5.0	ND	ND			
n-Butylbenzene	0.5	1.0	ND	ND			
sec-Butylbenzene	0.5	1.0	ND	ND			
tert-Butylbenzene	0.5	1.0	ND	ND			
Carbon Disulfide	0.5	1.0	ND	ND			
Carbon tetrachloride	0.5	1.0	ND	ND			
Chlorobenzene	0.5	1.0	ND	ND			
Chloroethane	1.5	3.0	ND	ND			
2-Chloroethyl vinyl ether	2.5	5.0	ND	ND			
Chloroform (Trichloromethane)	0.5	1.0	ND	ND			
Chloromethane (Methyl chloride)	1.5	3.0	ND	ND			
2-Chlorotoluene	0.5	1.0	ND	ND			
4-Chlorotoluene	0.5	1.0	ND	ND			
1,2-Dibromo-3-chloropropane (DBCP)	2.5	5.0	ND	ND			
Dibromochloromethane	0.5	1.0	ND	ND			
1,2-Dibromoethane (EDB)	0.5	1.0	ND	ND			
Dibromomethane	0.5	1.0	ND	ND			
1,2-Dichlorobenzene	0.5	1.0	ND	ND			
1,3-Dichlorobenzene	0.5	1.0	ND	ND			
1,4-Dichlorobenzene	0.5	1.0	ND	ND			
Dichlorodifluoromethane	1.5	3.0	ND	ND			

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ANALYTICAL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: 8260B, Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1223161A1

Our Lab I.D.			Method Blank	85924.33			
Client Sample I.D.				EB-1			
Date Sampled				12/20/2016			
Date Prepared			12/23/2016	12/20/2016			
Preparation Method			5030B	5030B			
Date Analyzed			12/23/2016	12/23/2016			
Matrix			Aqueous	Aqueous			
Units			ug/L	ug/L			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
1,1-Dichloroethane	0.5	1.0	ND	ND			
1,2-Dichloroethane (EDC)	0.5	1.0	ND	ND			
1,1-Dichloroethene	0.5	1.0	ND	ND			
cis-1,2-Dichloroethene	0.5	1.0	ND	ND			
trans-1,2-Dichloroethene	0.5	1.0	ND	ND			
1,2-Dichloropropane	0.5	1.0	ND	ND			
1,3-Dichloropropane	0.5	1.0	ND	ND			
2,2-Dichloropropane	0.5	1.0	ND	ND			
1,1-Dichloropropene	0.5	1.0	ND	ND			
cis-1,3-Dichloropropene	0.5	1.0	ND	ND			
trans-1,3-Dichloropropene	0.5	1.0	ND	ND			
Ethylbenzene	0.5	1.0	ND	ND			
Hexachlorobutadiene	1.5	3.0	ND	ND			
2-Hexanone	2.5	5.0	ND	ND			
Iodomethane	0.5	1.0	ND	ND			
Isopropylbenzene	0.5	1.0	ND	ND			
p-Isopropyltoluene	0.5	1.0	ND	ND			
4-Methyl-2-pentanone (MIBK)	2.5	5.0	ND	ND			
Methyl-tert-butyl ether (MTBE)	0.5	1.0	ND	ND			
Methylene chloride (DCM)	2.0	4.0	ND	ND			
Naphthalene	0.5	1.0	ND	ND			
n-Propylbenzene	0.5	1.0	ND	ND			
Styrene	0.5	1.0	ND	ND			
1,1,1,2-Tetrachloroethane	0.5	1.0	ND	ND			
1,1,2,2-Tetrachloroethane	0.5	1.0	ND	ND			
Tetrachloroethene	0.5	1.0	ND	ND			
Toluene (Methyl benzene)	0.5	1.0	ND	ND			
1,2,3-Trichlorobenzene	0.5	1.0	ND	ND			
1,2,4-Trichlorobenzene	0.5	1.0	ND	ND			
1,1,1-Trichloroethane	0.5	1.0	ND	ND			
1,1,2-Trichloroethane	0.5	1.0	ND	ND			
Trichloroethene	0.5	1.0	ND	ND			
Trichlorofluoromethane	0.5	1.0	ND	ND			
1,2,3-Trichloropropane	0.5	1.0	ND	ND			

American Environmental Testing Laboratory Inc.
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ANALYTICAL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: 8260B, Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1223161A1

Our Lab I.D.			Method Blank	**85924.33**			
Client Sample I.D.				EB-1			
Date Sampled				12/20/2016			
Date Prepared			12/23/2016	12/20/2016			
Preparation Method			5030B	5030B			
Date Analyzed			12/23/2016	12/23/2016			
Matrix			Aqueous	Aqueous			
Units			ug/L	ug/L			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Trichlorotrifluoroethane (Freon-113)	0.5	1.0	ND	ND			
1,2,4-Trimethylbenzene	0.5	1.0	ND	ND			
1,3,5-Trimethylbenzene	0.5	1.0	ND	ND			
Vinyl Acetate	0.5	5.0	ND	ND			
Vinyl chloride (Chloroethene)	0.5	3.0	ND	ND			
o-Xylene	0.5	1.0	ND	ND			
m,p-Xylenes	1.0	2.0	ND	ND			
Our Lab I.D.			Method Blank	**85924.33**			
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**			
Bromofluorobenzene	75-125		107	103			
Dibromofluoromethane	75-125		98.8	98.0			
Toluene-d8	75-125		97.5	96.0			

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: M8015G, TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 122716NB1

Our Lab I.D.			Method Blank	**85924.33**			
Client Sample I.D.				EB-1			
Date Sampled				12/20/2016			
Date Prepared			12/27/2016	12/20/2016			
Preparation Method			5030B	5030B			
Date Analyzed			12/27/2016	12/27/2016			
Matrix			Aqueous	Aqueous			
Units			mg/L	mg/L			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
TPH as Gasoline and Light HC. (C4-C12)	0.005	0.010	ND	ND			
Our Lab I.D.			Method Blank	**85924.33**			
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**			
Bromofluorobenzene	75-125		110	107			

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: M8015D, TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 122316DB1

Our Lab I.D.			Method Blank	**85924.33**			
Client Sample I.D.				EB-1			
Date Sampled				12/20/2016			
Date Prepared			12/23/2016	12/23/2016			
Preparation Method			3510C	3510C			
Date Analyzed			12/27/2016	12/27/2016			
Matrix			Aqueous	Aqueous			
Units			mg/L	mg/L			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
TPH as Diesel (C13-C22)	0.1	0.5	ND	ND			
TPH as Heavy Hydrocarbons (C23-C40)	0.1	0.5	ND	ND			
TPH Total as Diesel and Heavy HC.C13-C40	0.1	0.5	ND	ND			
Our Lab I.D.			Method Blank	**85924.33**			
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**			
Chlorobenzene	60-125		86.5	88.0			

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: 8310, Polynuclear Aromatic Hydrocarbons (SW-846)

QC Batch No: 122316IB1

Our Lab I.D.			Method Blank	**85924.33**			
Client Sample I.D.				EB-1			
Date Sampled				12/20/2016			
Date Prepared			12/23/2016	12/23/2016			
Preparation Method			3510C	3510C			
Date Analyzed			12/27/2016	12/27/2016			
Matrix			Aqueous	Aqueous			
Units			ug/L	ug/L			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Benzo(a)anthracene	0.10	0.20	ND	ND			
Benzo(a)pyrene	0.10	0.20	ND	ND			
Benzo(b)fluoranthene	0.10	0.20	ND	ND			
Benzo(k)fluoranthene	0.10	0.20	ND	ND			
Chrysene	0.10	0.20	ND	ND			
Dibenzo(a,h)anthracene	0.10	0.20	ND	ND			
Indeno(1,2,3-cd)pyrene	0.10	0.20	ND	ND			
Acenaphthene	0.10	0.20	ND	ND			
Acenaphthylene	0.10	0.20	ND	ND			
Anthracene	0.10	0.20	ND	ND			
Benzo(g,h,i)perylene	0.10	0.20	ND	ND			
Fluoranthene	0.10	0.20	ND	ND			
Fluorene	0.10	0.20	ND	ND			
Naphthalene	0.10	0.20	ND	ND			
Phenanthrene	0.10	0.20	ND	ND			
Pyrene	0.10	0.20	ND	ND			
Our Lab I.D.			Method Blank	**85924.33**			
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**			
p-Terphenyl-D14	75-125		105	107			

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: 8081A, Organochlorine Pesticides by GC/ECD

QC Batch No: 1222216/122216

Our Lab I.D.			Method Blank	**85924.33**			
Client Sample I.D.				EB-1			
Date Sampled				12/20/2016			
Date Prepared			12/22/2016	12/22/2016			
Preparation Method			3510C	3510C			
Date Analyzed			12/22/2016	12/23/2016			
Matrix			Aqueous	Aqueous			
Units			ug/L	ug/L			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Aldrin	0.05	0.10	ND	ND			
Chlordane (Total)	0.50	1.00	ND	ND			
Chlordane (alpha)	0.05	0.10	ND	ND			
4,4'-DDD (DDD)	0.10	0.20	ND	ND			
4,4'-DDE (DDE)	0.10	0.20	ND	ND			
4,4'-DDT (DDT)	0.10	0.20	ND	ND			
Dieldrin	0.10	0.20	ND	ND			
Endosulfan 1	0.05	0.10	ND	ND			
Endosulfan 11	0.10	0.20	ND	ND			
Endosulfan sulfate	0.10	0.20	ND	ND			
Endrin	0.10	0.20	ND	ND			
Endrin aldehyde	0.10	0.20	ND	ND			
Endrin ketone	0.10	0.20	ND	ND			
Chlordane (gamma)	0.05	0.10	ND	ND			
Heptachlor	0.05	0.10	ND	ND			
Heptachlor epoxide	0.05	0.10	ND	ND			
alpha-Hexachlorocyclohexane (Alpha-BHC)	0.05	0.10	ND	ND			
beta-Hexachlorocyclohexane (Betta-BHC)	0.05	0.10	ND	ND			
delta-Hexachlorocyclohexane (Delta-BHC)	0.05	0.10	ND	ND			
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	0.05	0.10	ND	ND			
Methoxychlor	0.50	1.00	ND	ND			
Toxaphene	5.0	10.0	ND	ND			

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ANALYTICAL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: 8081A, Organochlorine Pesticides by GC/ECD

Our Lab I.D.			Method Blank	**85924.33**			
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**			
Decachlorobiphenyl	30-150		119	102			
Tetrachloro-m-xylene	30-150		82.2	96.7			

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: 8082, Polychlorinated Biphenyls (PCBs) by GC

QC Batch No: 122216

Our Lab I.D.			Method Blank	**85924.33**			
Client Sample I.D.				EB-1			
Date Sampled				12/20/2016			
Date Prepared			12/22/2016	12/22/2016			
Preparation Method			3510C	3510C			
Date Analyzed			12/22/2016	12/23/2016			
Matrix			Aqueous	Aqueous			
Units			ug/L	ug/L			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Aroclor-1016 (PCB-1016)	1.00	5.00	ND	ND			
Aroclor-1221 (PCB-1221)	2.00	10.00	ND	ND			
Aroclor-1232 (PCB-1232)	1.00	5.00	ND	ND			
Aroclor-1242 (PCB-1242)	1.00	5.00	ND	ND			
Aroclor-1248 (PCB-1248)	0.25	2.50	ND	ND			
Aroclor-1254 (PCB-1254)	1.00	5.00	ND	ND			
Aroclor-1260 (PCB-1260)	1.00	5.00	ND	ND			
Aroclor-1262 (PCB-1262)	1.00	5.00	ND	ND			
Aroclor-1268 (PCB-1268)	1.00	5.00	ND	ND			
Our Lab I.D.			Method Blank	**85924.33**			
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**			
Decachlorobiphenyl	30-150		119	102			
Tetrachloro-m-xylene	30-150		82.2	96.7			

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: 6010/7000CAM, Title 22 Metals (SW-846)

QC Batch No: 1227162C5

Our Lab I.D.			Method Blank	**85924.33**			
Client Sample I.D.				EB-1			
Date Sampled				12/20/2016			
Date Prepared			12/27/2016	12/27/2016			
Preparation Method			3005A	3005A			
Date Analyzed			12/28/2016	12/28/2016			
Matrix			Aqueous	Aqueous			
Units			mg/L	mg/L			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Antimony	0.05	0.10	ND	ND			
Arsenic	0.05	0.10	ND	ND			
Barium	0.03	0.05	ND	ND			
Beryllium	0.01	0.05	ND	ND			
Cadmium	0.01	0.05	ND	ND			
Chromium	0.01	0.05	ND	ND			
Cobalt	0.01	0.05	ND	ND			
Copper	0.01	0.05	ND	ND			
Lead	0.05	0.10	ND	ND			
Mercury (By EPA 7470)	0.001	0.002	ND	ND			
Molybdenum	0.01	0.05	ND	ND			
Nickel	0.01	0.05	ND	ND			
Selenium	0.05	0.10	ND	ND			
Silver	0.01	0.05	ND	ND			
Thallium	0.05	0.10	ND	ND			
Vanadium	0.03	0.05	ND	ND			
Zinc	0.01	0.05	ND	ND			

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: SM5310B, Total Organic Carbon

QC Batch No: B7A0075

Our Lab I.D.			Method Blank	**85924.33**			
Client Sample I.D.				EB-1			
Date Sampled				12/20/2016			
Date Prepared			01/03/2017	01/03/2017			
Preparation Method			SM5310B	SM5310B			
Date Analyzed			01/04/2017	01/04/2017			
Matrix			Aqueous	Aqueous			
Units			mg/L	mg/L			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Organic Carbon, Total	1.0	3.0	ND	ND			

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: (8082), Polychlorinated Biphenyls (PCBs) by GC

QC Batch No: 122716

Our Lab I.D.			Method Blank	**85924.34**			
Client Sample I.D.				DA11			
Date Sampled				12/20/2016			
Date Prepared			12/27/2016	12/27/2016			
Preparation Method			3550B	3550B			
Date Analyzed			12/28/2016	12/28/2016			
Matrix			Soil	Soil			
Units			ug/Kg	ug/Kg			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Aroclor-1016 (PCB-1016)	25.0	50.0	ND	ND			
Aroclor-1221 (PCB-1221)	25.0	50.0	ND	ND			
Aroclor-1232 (PCB-1232)	25.0	50.0	ND	ND			
Aroclor-1242 (PCB-1242)	25.0	50.0	ND	ND			
Aroclor-1248 (PCB-1248)	25.0	50.0	ND	ND			
Aroclor-1254 (PCB-1254)	25.0	50.0	ND	ND			
Aroclor-1260 (PCB-1260)	25.0	50.0	ND	ND			
Aroclor-1262 (PCB-1262)	25.0	50.0	ND	ND			
Aroclor-1268 (PCB-1268)	25.0	50.0	ND	ND			
Our Lab I.D.			Method Blank	**85924.34**			
Surrogates	**%Rec.Limit**		**% Rec.**	**% Rec.**			
Decachlorobiphenyl	30-150		94.6	120			
Tetrachloro-m-xylene	30-150		60.0	90.7			

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: (6010BSCAN), Arsenic by ICP

QC Batch No: 1227162C3

Our Lab I.D.			Method Blank	85924.34			
Client Sample I.D.				DA11			
Date Sampled				12/20/2016			
Date Prepared			12/27/2016	12/27/2016			
Preparation Method			3050B	3050B			
Date Analyzed			12/28/2016	12/28/2016			
Matrix			Soil	Soil			
Units			mg/Kg	mg/Kg			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Arsenic	2.5	5.0	ND	ND			

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: (6010B.LEAD), Lead, ICP

QC Batch No: 1227162C3

Our Lab I.D.			Method Blank	85924.35	85924.36	85924.37	85924.38
Client Sample I.D.				DL1-1.5	DL2-1.5	DL3-1.5	DL4-1.5
Date Sampled				12/20/2016	12/20/2016	12/20/2016	12/20/2016
Date Prepared			12/27/2016	12/27/2016	12/27/2016	12/27/2016	12/27/2016
Preparation Method			3050B	3050B	3050B	3050B	3050B
Date Analyzed			12/28/2016	12/28/2016	12/28/2016	12/28/2016	12/28/2016
Matrix			Soil	Soil	Soil	Soil	Soil
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Lead	2.5	5.0	ND	ND	ND	ND	ND

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: (8081A), Organochlorine Pesticides by GC

QC Batch No: 122716EB1

Our Lab I.D.			Method Blank	**85924.39**			
Client Sample I.D.				DLC1			
Date Sampled				12/20/2016			
Date Prepared			12/27/2016	12/27/2016			
Preparation Method			3550B	3550B			
Date Analyzed			12/28/2016	12/28/2016			
Matrix			Soil	Soil			
Units			ug/Kg	ug/Kg			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Aldrin	1.0	2.0	ND	ND			
Chlordane (Total)	1.0	2.0	ND	2.59			
Chlordane (alpha)	1.0	2.0	ND	1.28J			
4,4'-DDD (DDD)	1.0	2.0	ND	ND			
4,4'-DDE (DDE)	1.0	2.0	ND	ND			
4,4'-DDT (DDT)	1.0	2.0	ND	ND			
Dieldrin	1.0	2.0	ND	ND			
Endosulfan 1	1.0	2.0	ND	ND			
Endosulfan 11	1.0	2.0	ND	ND			
Endosulfan sulfate	1.0	2.0	ND	ND			
Endrin	1.0	2.0	ND	ND			
Endrin aldehyde	1.0	2.0	ND	ND			
Endrin ketone	1.0	2.0	ND	ND			
Chlordane (gamma)	1.0	2.0	ND	1.31J			
Heptachlor	1.0	2.0	ND	ND			
Heptachlor epoxide	1.0	2.0	ND	ND			
alpha-Hexachlorocyclohexane (Alpha-BHC)	1.0	2.0	ND	ND			
beta-Hexachlorocyclohexane (Betta-BHC)	1.0	2.0	ND	ND			
delta-Hexachlorocyclohexane (Delta-BHC)	1.0	2.0	ND	ND			
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	1.0	2.0	ND	ND			
Methoxychlor	5.0	10.0	ND	ND			
Toxaphene	85.0	170.0	ND	ND			

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ANALYTICAL RESULTS

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: (8081A), Organochlorine Pesticides by GC

Our Lab I.D.			Method Blank	85924.39			
Surrogates	%Rec.Limit		% Rec.	% Rec.			
Decachlorobiphenyl	30-150		117	117			
Tetrachloro-m-xylene	30-150		110	131			

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: 6010/7000CAM, Title 22 Metals (SW-846)

QC Batch No: 1227162C5; Dup or Spiked Sample: 85937.01; LCS: Clean Water; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: mg/L

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Antimony	0.00	1.00	0.925	92.5	1.00	0.912	91.2	1.42	75-125	<15
Arsenic	0.00	1.00	1.05	105	1.00	1.05	105	<1	75-125	<15
Barium	0.131	1.00	1.04	90.9	1.00	1.04	90.9	<1	75-125	<15
Beryllium	0.00	1.00	1.10	110	1.00	1.11	111	<1	75-125	<15
Cadmium	0.00	1.00	0.883	88.3	1.00	0.882	88.2	<1	75-125	<15
Chromium	0.0214	1.00	0.942	92.1	1.00	0.937	91.6	<1	75-125	<15
Cobalt	0.00	1.00	0.854	85.4	1.00	0.854	85.4	<1	75-125	<15
Copper	0.00	1.00	0.941	94.1	1.00	0.935	93.5	<1	75-125	<15
Lead	0.00	1.00	0.792	79.2	1.00	0.789	78.9	<1	75-125	<15
Mercury (By EPA 7470)	0.00	0.0100	0.00929	92.9	0.0100	0.00928	92.8	<1	75-125	<15
Molybdenum	0.00	1.00	0.855	85.5	1.00	0.847	84.7	<1	75-125	<15
Nickel	0.0159	1.00	0.856	84.0	1.00	0.853	83.7	<1	75-125	<15
Selenium	0.00	1.00	1.31 #	131	1.00	1.34 #	134	2.26	75-125	<15
Silver	0.00	1.00	0.892	89.2	1.00	0.886	88.6	<1	75-125	<15
Thallium	0.00	1.00	0.752	75.2	1.00	0.756	75.6	<1	75-125	<15
Vanadium	0.00	1.00	0.861	86.1	1.00	0.856	85.6	<1	75-125	<15
Zinc	0.00	1.00	0.990	99.0	1.00	0.989	98.9	<1	75-125	<15

QC Batch No: 1227162C5; Dup or Spiked Sample: 85937.01; LCS: Clean Water; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: mg/L

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Antimony	1.00	0.990	98.7	1.00	0.990	99.3	<1	75-125	<15	
Arsenic	1.00	1.03	103	1.00	1.02	102	<1	75-125	<15	
Barium	1.00	0.980	98.0	1.00	0.980	98.2	<1	75-125	<15	
Beryllium	1.00	1.09	109	1.00	1.08	108	<1	75-125	<15	
Cadmium	1.00	0.960	96.3	1.00	0.970	97.0	<1	75-125	<15	
Chromium	1.00	0.966	96.6	1.00	0.969	96.9	<1	75-125	<15	
Cobalt	1.00	0.920	92.4	1.00	0.930	92.9	<1	75-125	<15	
Copper	1.00	0.940	94.0	1.00	0.940	94.1	<1	75-125	<15	
Lead	1.00	0.910	90.9	1.00	0.910	90.8	<1	75-125	<15	
Mercury (By EPA 7470)	0.0100	0.00979	97.9	0.0100	0.00987	98.7	<1	75-125	<15	

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: 6010/7000CAM, Title 22 Metals (SW-846)

QC Batch No: 1227162C5; Dup or Spiked Sample: 85937.01; LCS: Clean Water; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: mg/L

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Molybdenum	1.00	0.970	96.8	1.00	0.970	97.0	<1	75-125	<15	
Nickel	1.00	0.909	90.9	1.00	0.915	91.5	<1	75-125	<15	
Selenium	1.00	1.04	104	1.00	1.02	102	1.94	75-125	<15	
Silver	1.00	1.00	99.8	1.00	1.00	100	<1	75-125	<15	
Thallium	1.00	0.900	90.4	1.00	0.900	89.9	<1	75-125	<15	
Vanadium	1.00	0.980	98.2	1.00	0.980	98.4	<1	75-125	<15	
Zinc	1.00	1.02	102	1.00	1.03	103	<1	75-125	<15	

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: 8081A, Organochlorine Pesticides by GC/ECD

QC Batch No: 1222216/122216; LCS: Clean Water; Units: ug/L

Analytes	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit	
Aldrin	0.400	0.301	75.3	0.400	0.260	65.0	14.7	40-140	<40	
4,4'-DDT (DDT)	1.00	1.08	108	1.00	0.702	70.2	42.4	40-140	<40	
Dieldrin	1.00	0.839	83.9	1.00	0.699	69.9	18.2	40-140	<40	
Endrin	1.00	1.01	101	1.00	0.780	78.0	25.7	40-140	<40	
Heptachlor	0.400	0.399	99.8	0.400	0.364	91.0	9.2	40-140	<40	
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	0.400	0.381	95.3	0.400	0.327	81.8	15.2	40-140	<40	
Surrogates										
Decachlorobiphenyl	1.00	1.23	123	1.00	0.936	93.6	27.1	30-150	<20	
Tetrachloro-m-xylene	1.00	0.946	94.6	1.00	0.797	79.7	17.1	30-150	<20	

QC Batch No: 1222216/122216; LCS: Clean Water; Units: ug/L

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS/LCSD % Limit						
Aldrin	0.400	0.278	69.5	40-140						
4,4'-DDT (DDT)	1.00	1.04	104	40-140						
Dieldrin	1.00	0.739	73.9	40-140						
Endrin	1.00	0.866	86.6	40-140						
Heptachlor	0.400	0.392	98.0	40-140						
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	0.400	0.340	85.0	40-140						
Surrogates										
Decachlorobiphenyl	1.00	1.04	104	30-150						
Tetrachloro-m-xylene	1.00	0.920	92.0	30-150						

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: 8082, Polychlorinated Biphenyls (PCBs) by GC

QC Batch No: 122216; LCS: Clean Water; Units: ug/L

Analytes	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit	
Aroclor-1260 (PCB-1260)	5.00	3.18	63.6	5.00	2.82	56.4	12.0	75-125	<20	
Surrogates										
Decachlorobiphenyl	1.00	0.718	71.8	1.00	0.633	63.3	12.6	30-150	<20	
Tetrachloro-m-xylene	1.00	0.728	72.8	1.00	0.744	74.4	2.2	30-150	<20	

QC Batch No: 122216; LCS: Clean Water; Units: ug/L

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS/LCSD % Limit						
Aroclor-1260 (PCB-1260)	5.00	2.59	51.8	75-125						
Surrogates										
Decachlorobiphenyl	1.00	0.652	65.2	30-150						
Tetrachloro-m-xylene	1.00	0.679	67.9	30-150						

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: 8260B, Volatile Organic Compounds by GC/MS (SW846)

QC Batch No: 1223161A1; Dup or Spiked Sample: B1223161A1; LCS: Clean Water; QC Prepared: 12/23/2016; QC Analyzed: 12/23/2016; Units: ug/L

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Benzene	0.00	50.0	56.5	113	50.0	58.5	117	3.48	75-125	<20
Chlorobenzene	0.00	50.0	51.5	103	50.0	53.0	106	2.87	75-125	<20
1,1-Dichloroethene	0.00	50.0	57.0	114	50.0	58.0	116	1.74	75-125	<20
Methyl-tert-butyl ether (MTBE)	0.00	50.0	59.0	118	50.0	62.5	125	5.76	75-125	<20
Toluene (Methyl benzene)	0.00	50.0	51.5	103	50.0	54.0	108	4.74	75-125	<20
Trichloroethene	0.00	50.0	59.0	118	50.0	61.0	122	3.33	75-125	<20
Surrogates										
Bromofluorobenzene	0.00	50.0	46.9	93.7	50.0	46.8	93.5	<1	75-125	<20
Dibromofluoromethane	0.00	50.0	48.3	96.5	50.0	48.4	96.8	<1	75-125	<20
Toluene-d8	0.00	50.0	47.6	95.1	50.0	48.0	95.9	<1	75-125	<20

QC Batch No: 1223161A1; Dup or Spiked Sample: B1223161A1; LCS: Clean Water; QC Prepared: 12/23/2016; QC Analyzed: 12/23/2016; Units: ug/L

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Benzene	50.0	61.5	123	50.0	59.5	119	3.31	75-125	<20	
Chlorobenzene	50.0	56.5	113	50.0	54.0	108	4.52	75-125	<20	
1,1-Dichloroethene	50.0	57.0	114	50.0	54.0	108	5.41	75-125	<20	
Methyl-tert-butyl ether (MTBE)	50.0	62.0	124	50.0	62.0	124	<1	75-125	<20	
Toluene (Methyl benzene)	50.0	58.0	116	50.0	54.5	109	6.22	75-125	<20	
Trichloroethene	50.0	62.5	125	50.0	62.5	125	<1	75-125	<20	
LCS										
Chloroform (Trichloromethane)	50.0	60.5	121	50.0	59.1	118	2.51	75-125	<20	
Ethylbenzene	50.0	59.6	119	50.0	56.0	112	6.06	75-125	<20	
1,1,1-Trichloroethane	50.0	62.5	125	50.0	62.5	125	<1	75-125	<20	
o-Xylene	50.0	57.2	114	50.0	54.2	108	5.41	75-125	<20	
m,p-Xylenes	100	118	118	100	110	110	7.02	75-125	<20	
Surrogates										
Bromofluorobenzene	50.0	46.4	92.7	50.0	46.0	92.0	<1	75-125	<20	
Dibromofluoromethane	50.0	48.2	96.4	50.0	48.5	97.0	<1	75-125	<20	
Toluene-d8	50.0	47.7	95.4	50.0	47.0	94.0	1.47	75-125	<20	

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: 8310, Polynuclear Aromatic Hydrocarbons (SW-846)

QC Batch No: 122316IB1; Dup or Spiked Sample: 1223; LCS: Clean Water; QC Prepared: 12/23/2016; QC Analyzed: 12/27/2016; Units: ug/L

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Benzo(a)anthracene	0.00	0.500	0.460	91.4	0.500	0.460	91.0	<1	75-125	<20
Benzo(a)pyrene	0.00	0.500	0.420	84.8	0.500	0.420	84.2	<1	75-125	<20
Naphthalene	0.00	5.00	4.41	88.2	5.00	4.43	88.6	<1	70-120	<20
Surrogates										
p-Terphenyl-D14	0.00	4.00	4.77	119	4.00	4.74	119	<1	75-125	<20

QC Batch No: 122316IB1; Dup or Spiked Sample: 1223; LCS: Clean Water; QC Prepared: 12/23/2016; QC Analyzed: 12/27/2016; Units: ug/L

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS/LCSD % Limit						
Benzo(a)anthracene	0.500	0.440	87.0	75-125						
Benzo(a)pyrene	0.500	0.400	79.2	75-125						
Naphthalene	5.00	4.21	84.2	70-120						
LCS										
Acenaphthene	5.00	4.19	83.8	75-125						
Acenaphthylene	10.0	7.71	77.1	75-125						
Anthracene	0.500	0.390	78.4	75-125						
Benzo(b)fluoranthene	1.00	0.900	89.8	75-125						
Benzo(g,h,i)perylene	1.00	0.920	92.1	75-125						
Benzo(k)fluoranthene	0.500	0.450	89.0	75-125						
Chrysene	0.500	0.470	93.2	75-125						
Dibenzo(a,h)anthracene	1.00	0.880	88.1	75-125						
Fluoranthene	1.00	0.850	84.7	75-125						
Fluorene	1.00	0.880	87.5	75-125						
Indeno(1,2,3-cd)pyrene	0.500	0.440	88.4	75-125						
Phenanthrene	0.500	0.430	86.2	75-125						
Pyrene	0.500	0.440	88.6	60-110						
Surrogates										
p-Terphenyl-D14	4.00	4.66	117	75-125						

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: M8015D, TPH as Diesel and Heavy Hydrocarbons Using GC/FID

QC Batch No: 122316DB1; Dup or Spiked Sample: 1223; LCS: Clean Water; QC Prepared: 12/23/2016; QC Analyzed: 12/27/2016; Units: mg/L

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
TPH as Diesel (C13-C22)	0.00	5.00	5.40	108	5.00	5.25	105	2.82	75-125	<20
Surrogates										
Chlorobenzene	0.00	2.00	2.08	104	2.00	2.04	102	1.92	60-125	<20

QC Batch No: 122316DB1; Dup or Spiked Sample: 1223; LCS: Clean Water; QC Prepared: 12/23/2016; QC Analyzed: 12/27/2016; Units: mg/L

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS/LCSD % Limit						
TPH as Diesel (C13-C22)	5.00	5.30	106	75-125						
Surrogates										
Chlorobenzene	2.00	2.08	104	60-125						

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: M8015G, TPH as Gasoline and Light Hydrocarbons Using GC/FID

QC Batch No: 122716NB1; Dup or Spiked Sample: B122716NB1; LCS: Clean Water; QC Prepared: 12/27/2016; QC Analyzed: 12/27/2016; Units: mg/L

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
TPH as Gasoline and Light HC. (C4-C12)	0.00	0.500	0.417	83.4	0.500	0.412	82.4	1.21	75-125	<20
Surrogates										
Bromofluorobenzene	0.00	0.0500	0.0515	103	0.0500	0.0530	106	2.91	75-125	<20

QC Batch No: 122716NB1; Dup or Spiked Sample: B122716NB1; LCS: Clean Water; QC Prepared: 12/27/2016; QC Analyzed: 12/27/2016; Units: mg/L

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
TPH as Gasoline and Light HC. (C4-C12)	0.500	0.454	90.8	0.500	0.455	91.0	<1	75-125	<20	
Surrogates										
Bromofluorobenzene	0.0500	0.0570	114	0.0500	0.0550	110	3.51	75-125	<20	

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: SM5310B, Total Organic Carbon

QC Batch No: B7A0075; LCS: Clean Water; LCS Prepared: 01/03/2017; LCS Analyzed: 01/04/2017; Units: mg/L

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Organic Carbon, Total	20.0	22.0	110	20.0	20.8	104	5.6	85-115	<20	

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Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: (6010B.LEAD), Lead, ICP

QC Batch No: 1227162C3; Dup or Spiked Sample: 85921.26; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Lead	0.00	50.0	38.8	77.6	50.0	38.5	77.0	<1	75-125	<15

QC Batch No: 1227162C3; Dup or Spiked Sample: 85921.26; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Lead	50.0	48.0	96.0	50.0	48.0	96.0	<1	75-125	<15	

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QUALITY CONTROL RESULTS

Ordered By

Converse Consultants
717 S Myrtle Ave
Monrovia, CA 91016-

Telephone: (626)930-1200
Attn: Michael Van Fleet
Page: **28**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: (6010BSCAN), Arsenic by ICP

QC Batch No: 1227162C3; Dup or Spiked Sample: 85921.26; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: mg/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Arsenic	0.00	50.0	39.8	79.6	50.0	39.7	79.4	<1	75-125	<15

QC Batch No: 1227162C3; Dup or Spiked Sample: 85921.26; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: mg/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Arsenic	50.0	47.9	95.8	50.0	47.7	95.4	<1	75-125	<15	

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Attn: Michael Van Fleet
Page: **29**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: (8081A), Organochlorine Pesticides by GC

QC Batch No: 122716EB1; Dup or Spiked Sample: 85921.08; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: ug/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Aldrin	0.00	20.0	14.4	72.0	20.0	13.2	66.0	8.7	40-150	<40
4,4'-DDT (DDT)	0.00	50.0	51.5	103	50.0	43.0	86.0	18.0	40-150	<40
Dieldrin	0.00	50.0	57.0	114	50.0	38.4	76.8	39.0	40-150	<40
Endrin	0.00	50.0	37.1	74.2	50.0	32.3	64.6	13.8	40-150	<40
Heptachlor	0.00	20.0	21.4	107	20.0	17.6	88.0	19.5	40-150	<40
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	0.00	20.0	18.9	94.5	20.0	15.6	78.0	19.1	40-150	<40
Surrogates										
Decachlorobiphenyl	0.00	50.0	72.5	145	50.0	71.5	143	1.38	30-150	<40
Tetrachloro-m-xylene	0.00	50.0	46.2	92.4	50.0	29.1	58.2	37.0	30-150	<40

QC Batch No: 122716EB1; Dup or Spiked Sample: 85921.08; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: ug/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS/LCSD % Limit						
Aldrin	20.0	13.6	68.0	50-150						
4,4'-DDT (DDT)	50.0	47.5	95.0	50-150						
Dieldrin	50.0	47.0	94.0	50-150						
Endrin	50.0	29.6	59.2	50-150						
Heptachlor	20.0	17.5	87.5	50-150						
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	20.0	15.7	78.5	50-150						
Surrogates										
Decachlorobiphenyl	50.0	57.9	116	30-150						
Tetrachloro-m-xylene	50.0	41.8	83.6	30-150						

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Monrovia, CA 91016-

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Attn: Michael Van Fleet
Page: **30**

Project ID: 02-41-220-05
Project Name: Pardee-Meadowood

AETL Job Number	Submitted	Client
85924	12/21/2016	CONVRS

Method: (8082), Polychlorinated Biphenyls (PCBs) by GC

QC Batch No: 122716; Dup or Spiked Sample: 85921.09; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: ug/Kg

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Aroclor-1016 (PCB-1016)	0.00	500	410	82.0	500	391	78.2	4.7	50-150	<50
Aroclor-1260 (PCB-1260)	0.00	500	441	88.2	500	481	96.2	8.7	50-150	<50
Surrogates										
Decachlorobiphenyl	0.00	50.0	53.0	106	50.0	54.5	109	2.8	30-150	<50
Tetrachloro-m-xylene	0.00	50.0	48.9	97.8	50.0	47.0	94.0	4.0	30-150	<50

QC Batch No: 122716; Dup or Spiked Sample: 85921.09; LCS: Clean Sand; QC Prepared: 12/27/2016; QC Analyzed: 12/28/2016; Units: ug/Kg

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS/LCSD % Limit						
Aroclor-1016 (PCB-1016)	500	257	51.4	50-150						
Aroclor-1260 (PCB-1260)	500	424	84.8	50-150						
Surrogates										
Decachlorobiphenyl	50.0	50.5	101	30-150						
Tetrachloro-m-xylene	50.0	30.1	60.2	30-150						

ADVANCED TECHNOLOGY LABORATORIES

January 11, 2017

Jim Lin
AETL
2834 North Naomi Street
Burbank, CA 91504
Tel: (818) 845-8200
Fax:(818) 845-8840

ELAP No.: **1838**
CSDLAC No.: **10196**
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604914
Client Reference : 85924

Enclosed are the results for sample(s) received on December 23, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

AETL	Project Number : 85924
2834 North Naomi Street	Report To : Jim Lin
Burbank , CA 91504	Reported : 01/11/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
85924.33	1604914-01	Water	12/20/16 11:30	12/23/16 10:25

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

AETL	Project Number : 85924
2834 North Naomi Street	Report To : Jim Lin
Burbank , CA 91504	Reported : 01/11/2017

Client Sample ID 85924.33

Lab ID: 1604914-01

Total Organic Carbon by SM 5310B

Analyst: BL

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	**0.13**	3.0	0.13	1	B7A0075	01/03/2017	01/04/17 00:55	J

Certificate of Analysis

AETL	Project Number : 85924
2834 North Naomi Street	Report To : Jim Lin
Burbank , CA 91504	Reported : 01/11/2017

QUALITY CONTROL SECTION

Total Organic Carbon by SM 5310B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0075 - No_Prep_II_W									
Blank (B7A0075-BLK1)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Organic Carbon, Total	ND	3.0			NR				
LCS (B7A0075-BS1)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Organic Carbon, Total	22.0700	3.0	20.0000		110	80 - 120			
LCS Dup (B7A0075-BSD1)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Organic Carbon, Total	20.9000	3.0	20.0000		104	80 - 120	5.45	20	

Certificate of Analysis

AETL	Project Number : 85924
2834 North Naomi Street	Report To : Jim Lin
Burbank , CA 91504	Reported : 01/11/2017

Notes and Definitions

J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

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CHAIN OF CUSTODY RECORD

Page 1 of 1

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport: ☐ Client ☐ ATL ☐ FedEx ☐ OnTrac ☐ GSO ☐ Other:

Sample Conditions Upon Receipt

Condition	Y	N	Condition	Y	N
1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☐	☐
2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C: 4.0		
4. SEALED	☐	☐			

Blue Ice

CUSTOMER

Company: AETL
Address: 2924 N. Naomi St.
City: Burbank State: CA Zip: 91504
Tel: 818-845-8200 Fax: 818-845-8240

SEND REPORT TO:
Attn: Jim Lin Email:
Company: AETL
Address: As above
City: State: Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Areg Email:
Company: AETL
Address: As above
City: State: Zip:

PROJECT SAMPLES

Project Name:
Project No.: 85924
Sampler: CLIENT
Quote No:
PO #: 2/811-SMB
Special Instructions/Comments:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time
1	1604 9M-1	85924.33	12/20/16	1130
2				
3				
4				
5				
6				
7				
8				
9				
10				

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; TOC (X)

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND (X); WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

TAT	Container #	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Ziplock; 7=Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
5	1	2		1	

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reformatted report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
[signature]	12-23-16	1024	[signature]	12/23/16	10:25
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

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Data Qualifiers and Descriptors

Data Qualifier:

#:	Recovery is not within acceptable control limits.
*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

Appendix F
Screening Level Calculations

Appendix F

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Default

Resident Equation Inputs for Soil

Variable	Value
THQ (target hazard quotient) unitless	1
TR (target risk) unitless	1.0E-6
LT (lifetime) year	70
ET_{res} (exposure time) hour	24
ET_{res-c} (child exposure time) hour	24
ET_{res-a} (adult exposure time) hour	24
ET_{0-2} (mutagenic exposure time) hour	24
ET_{2-6} (mutagenic exposure time) hour	24
ET_{6-16} (mutagenic exposure time) hour	24
ET_{16-26} (mutagenic exposure time) hour	24
ED_{res} (exposure duration) year	26
ED_{res-c} (exposure duration - child) year	6
ED_{res-a} (exposure duration - adult) year	20
ED_{0-2} (mutagenic exposure duration) year	2
ED_{2-6} (mutagenic exposure duration) year	4
ED_{6-16} (mutagenic exposure duration) year	10
ED_{16-26} (mutagenic exposure duration) year	10
BW_{res-c} (body weight - child) kg	15
BW_{res-a} (body weight - adult) kg	80
BW_{0-2} (mutagenic body weight) kg	15
BW_{2-6} (mutagenic body weight) kg	15
BW_{6-16} (mutagenic body weight) kg	80
BW_{16-26} (mutagenic body weight) kg	80
SA_{res-c} (skin surface area - child) cm^2/day	2373
SA_{res-a} (skin surface area - adult) cm^2/day	6032
SA_{0-2} (mutagenic skin surface area) cm^2/day	2373
SA_{2-6} (mutagenic skin surface area) cm^2/day	2373
SA_{6-16} (mutagenic skin surface area) cm^2/day	6032
SA_{16-26} (mutagenic skin surface area) cm^2/day	6032
EF_{res} (exposure frequency) day/year	350
EF_{res-c} (exposure frequency - child) day/year	350
EF_{res-a} (exposure frequency - adult) day/year	350
EF_{0-2} (mutagenic exposure frequency) day/year	350

Output generated 19JAN2017:15:01:52

Default

Resident Equation Inputs for Soil

Variable	Value
EF_{2-6} (mutagenic exposure frequency) day/year	350
EF_{6-16} (mutagenic exposure frequency) day/year	350
EF_{16-26} (mutagenic exposure frequency) day/year	350
$IFS_{res-adj}$ (age-adjusted soil ingestion factor) mg/kg	36750
$IFSM_{res-adj}$ (mutagenic age-adjusted soil ingestion factor) mg/kg	166833.33
IRS_{res-c} (soil intake rate - child) mg/day	200
IRS_{res-a} (soil intake rate - adult) mg/day	100
IRS_{0-2} (mutagenic soil intake rate) mg/day	200
IRS_{2-6} (mutagenic soil intake rate) mg/day	200
IRS_{6-16} (mutagenic soil intake rate) mg/day	100
IRS_{16-26} (mutagenic soil intake rate) mg/day	100
AF_{res-a} (skin adherence factor - adult) mg/cm ^{2}	0.07
AF_{res-c} (skin adherence factor - child) mg/cm ^{2}	0.2
AF_{0-2} (mutagenic skin adherence factor) mg/cm ^{2}	0.2
AF_{2-6} (mutagenic skin adherence factor) mg/cm ^{2}	0.2
AF_{6-16} (mutagenic skin adherence factor) mg/cm ^{2}	0.07
AF_{16-26} (mutagenic skin adherence factor) mg/cm ^{2}	0.07
$DFS_{res-adj}$ (age-adjusted soil dermal factor) mg/kg	103390
$DFSM_{res-adj}$ (mutagenic age-adjusted soil dermal factor) mg/kg	428260
$City_{PEF}$ (Climate Zone) Selection	
A_s (acres)	0.5
Q/C_{wp} (inverse of the ratio of the geometric mean air concentration to the emission flu	93.77
PEF (particulate emission factor) m ^{3}/kg	1359344438
A (PEF Dispersion Constant)	16.2302
B (PEF Dispersion Constant)	18.7762
C (PEF Dispersion Constant)	216.108
V (fraction of vegetative cover) unitless	0.5
U_m (mean annual wind speed) m/s	4.69
U_t (equivalent threshold value)	11.32
F(x) (function dependant on U_m/U_t) unitless	0.194
$City_{VF}$ (Climate Zone) Selection	
A_s (acres)	.5
Q/C_{vol} (inverse of the ratio of the geometric mean air concentration to the emission flu	68.18

Output generated 19JAN2017:15:01:52

Default

Resident Equation Inputs for Soil

Variable	Value
foc (fraction organic carbon in soil) g/g	0.006
p_b (dry soil bulk density) g/cm ^{3}	1.5
p_s (soil particle density) g/cm ^{3}	2.65
n (total soil porosity) L_{pore}/L_{soil}	
$_a$ (air-filled soil porosity) L_{air}/L_{soil}	
$_w$ (water-filled soil porosity) L_{water}/L_{soil}	0.15
T (exposure interval) s	819936000
A (VF Dispersion Constant)	11.911
B (VF Dispersion Constant)	18.4385
C (VF Dispersion Constant)	209.7845
$City_{VF\ mass\text{-}loading}$ (Climate Zone) Selection	
VF_{ml} (volitization factor - mass-limit) m ^{3}/kg	.
Q/C_{vol} (inverse of the ratio of the geometric mean air concentration to the emission fl	68.18365
A_c (acres)	.5
T (exposure interval) yr	26
d_c (depth of source) m	.
p_b (dry soil bulk density) g/cm ^{3}	1.5
A (VF Dispersion Constant - Mass Limit)	11.911
B (VF Dispersion Constant - Mass Limit)	18.4385
C (VF Dispersion Constant - Mass Limit)	209.7845

Default

Resident Risk-Based Screening Levels (RSL) for Soil

Key: I = IRIS; P = PPRTV; D = DWSHA; O = OPP; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Chemical	CAS Number	Mutagen?	VOC?	Ingestion SF (mg/kg-day) $^{-1}$	SFO Ref	Inhalation Unit Risk (ug/m ^{3})$^{-1}$	IUR Ref	Chronic RfD (mg/kg-day)	Chronic RfD Ref	Chronic RfC (mg/m ^{3})	Chronic RfC Ref	GIABS	ABS	RBA
Barium	7440-39-3	No	No	-		-		2.00E-01	IR	5.00E-04	HE	0.07	-	1
Cobalt	7440-48-4	No	No	-		9.00E-03	P	3.00E-04	PP	6.00E-06	PP	1	-	1
Copper	7440-50-8	No	No	-		-		4.00E-02	HE	-		1	-	1
DDE, p,p'-	72-55-9	No	Yes	3.40E-01	I	9.70E-05	C	-		-		1	-	1
Total Petroleum Hydrocarbons (Aromatic High)	NA	No	No	-		-		4.00E-02	PP	-		1	0.1	1
Zinc and Compounds	7440-66-6	No	No	-		-		3.00E-01	IR	-		1	-	1

Resident Risk-Based Screening Levels (RSL) for Soil

Key: I = IRIS; P = PPRTV; D = DWSHA; O = OPP; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Chemical	Volatilization Factor (m^3/kg)	Henry's Law Constant ($atm\text{-}m^3/mol$)	S (mg/L)	K_{oc} (cm^3/g)	Soil Saturation Concentration (mg/kg)	Particulate Emission Factor (m^3/kg)	Ingestion SL TR=1.0E-6 (mg/kg)	Dermal SL TR=1.0E-6 (mg/kg)	Inhalation SL TR=1.0E-6 (mg/kg)	Carcinogenic SL TR=1.0E-6 (mg/kg)
Barium	-	-	-	-	-	1.36E+09	-	-	-	-
Cobalt	-	-	-	-	-	1.36E+09	-	-	4.24E+02	4.24E+02
Copper	-	-	-	-	-	1.36E+09	-	-	-	-
DDE, p,p'-	2.10E+06	1.70E-03	4.00E-02	1.18E+05	-	1.36E+09	2.04E+00	-	6.08E+01	1.98E+00
Total Petroleum Hydrocarbons (Aromatic High)	-	3.62E-04	2.60E-01	5.55E+04	-	1.36E+09	-	-	-	-
Zinc and Compounds	-	-	-	-	-	1.36E+09	-	-	-	-

Default

Resident Risk-Based Screening Levels (RSL) for Soil

Key: I = IRIS; P = PPRTV; D = DWSHA; O = OPP; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Chemical	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)	Ingestion SL Adult THQ=1 (mg/kg)	Dermal SL Adult THQ=1 (mg/kg)	Inhalation SL Adult THQ=1 (mg/kg)	Noncarcinogenic SL Adult THI=1 (mg/kg)	Screening Level (mg/kg)
Barium	1.56E+04	-	7.09E+05	1.53E+04	1.67E+05	-	7.09E+05	1.35E+05	1.53E+04 nc
Cobalt	2.35E+01	-	8.51E+03	2.34E+01	2.50E+02	-	8.51E+03	2.43E+02	2.34E+01 nc
Copper	3.13E+03	-	-	3.13E+03	3.34E+04	-	-	3.34E+04	3.13E+03 nc
DDE, p,p'-	-	-	-	-	-	-	-	-	1.98E+00 ca
Total Petroleum Hydrocarbons (Aromatic High)	3.13E+03	1.32E+04	-	2.53E+03	3.34E+04	7.90E+04	-	2.35E+04	2.53E+03 nc
Zinc and Compounds	2.35E+04	-	-	2.35E+04	2.50E+05	-	-	2.50E+05	2.35E+04 nc

Matthew Rodriquez
Secretary for
Environmental Protection

Department of Toxic Substances Control

Barbara A. Lee, Director
5796 Corporate Avenue
Cypress, California 90630

Edmund G. Brown Jr.
Governor

February 24, 2017

Mr. Allen Kashani
Director of Project Management
Pardee Homes
13400 Sabre Springs Parkway, Suite 200
San Diego, California 92128

APPROVAL OF PRELIMINARY ENVIRONMENTAL ASSESSMENT REPORT, PROPOSED MEADOWOOD ELEMENTARY SCHOOL SITE, LOCATED NORTH OF HIGHWAY 76 AND EAST OF INTERSTATE 15, FALLBROOK, SAN DIEGO COUNTY (SITE CODE: 404894)

Dear Mr. Kashani:

The Department of Toxic Substances Control (DTSC) reviewed the Draft Preliminary Environmental Assessment (PEA) Report prepared by Converse Consultants, Inc., dated and received on January 25, 2017 for the Proposed Meadowood Elementary School Site (Site). The PEA presents investigation results and conclusions based on a health risk screening evaluation for the Potential School site (Site).

According to the PEA Report, the 12.7-acre Site, depicted on the Figure enclosed herein, is in the Meadowood development within the Fallbrook Planning Area, located north of Highway 76 (Pala Road). The Site is immediately bounded by a citrus orchard (proposed to be a park) to the north, by Horse Ranch Creek Road to the west, currently vacant land (proposed residential development) to the south and Rosemary's Mountain to the east.

During the PEA, the Site was investigated for residual total organic compounds (TOCs), lead, Title 22 metals, polychlorinated biphenyls (PCBs), organochlorine pesticides (OCPs), total petroleum hydrocarbons (TPHs), and volatile organic compounds (VOCs) that may pose a threat to human health and the environment. The PEA Report recommends no further action for the Site.

Based on review of the PEA, neither a release of hazardous material nor the presence of a naturally occurring hazardous material, which would pose a threat to public health or the environment under unrestricted land use, was indicated at the Site.

Consequently, DTSC concurs with the "no further action" recommendation and hereby approves the PEA.

DTSC understands that the Site is a future school property. If Site conditions change or construction of the school is not initiated within six months, then additional assessment and/or investigation may be necessary. In addition, Pursuant to Ed. Code § 17213.1, the school district is required to make the PEA available for public review and comments and hold a public hearing on the PEA. At the close of the public comment period and after the hearing, the district should provide written notification to DTSC of the start and end dates of the public comment period, date of the public hearing, and all public comments received on the PEA. Thereafter, DTSC will consider comments received, prior to re-issuance of its determination to the district.

If you have any questions regarding the project, please contact Mr. Aslam Shareef, Project Manager, at (714)484-5308 or me at (714)484-5368

Sincerely,

Shahir Haddad, P.E.
Supervising Engineer
Brownfields Restoration and School Evaluation Branch
Brownfields and Environmental Restoration Program - Cypress

kl/as/sh

Enclosure

cc: Mr. Norman Eke (via e-mail)
Converse Consultants
NEke@ConverseConsultants.com

Mr. Michael Van-Fleet (via e-mail)
Converse Consultants
mvanfleet@ConverseConsultants.com



REFERENCE: GOOGLE EARTH PRO

LEGEND

PROPOSED SCHOOL SITE

PROPOSED BORROW SITE

N

0 1000 2000

APPROXIMATE SCALE IN FEET

SITE LOCATION MAP

Converse Consultants

PROPOSED SCHOOL SITE
MEADOWOOD DEVELOPMENT
FALLBROOK, CALIFORNIA

Project No.
02-41-220-05

Drawing No.
A

GEOCON
INCORPORATED
GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS

Project No. 06931-42-07
June 3, 2022

Tri Pointe Homes
13400 Sabre Springs Parkway, Suite 200
San Diego, California 92128

Attention: Ms. April Tornillo

Subject: GRADING PERFORMED IN PA-2 (SCHOOL SITE)
CITRO
SAN DIEGO COUNTY, CALIFORNIA

Dear Ms. Tornillo:

We have prepared this letter to document that grading within PA-2 (School Site) at the Citro project was performed in accordance with DTSC's requirements. Prior to placing fill, the upper 1 foot of soil across PA-2 was removed in both cut and fill areas and exported to PA-4 where it was incorporated into canyon fills. Alluvium was then removed to approximately 3 feet above the groundwater elevation. The alluvium and soil from cut areas within PA-2 were placed as compacted fill.

Import soil from PA-3 was required to reach sheet grade elevations. Soil from PA-3 imported to PA-2 was taken from cuts at least 1 foot below original site grades.

Technician daily field reports documenting grading activities are appended.

If you have any questions regarding this letter, or if we may be of further service, please contact the undersigned at your convenience.

Very truly yours,

GEOCON INCORPORATED

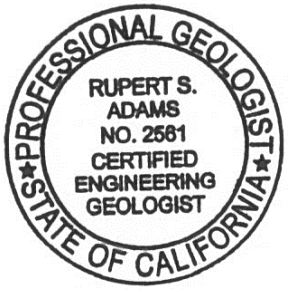
Rodney C. Mikesell
GE 2533

Rupert S. Adams
CEG 2561

RCM:RSA:arm

(e-mail) Addressee





GEOCON

FIELD REPORT

PAGE _____ OF _____
DAY OF WEEK TUES
DATE 2-18-2020
REPORT NO. 14

◉ GRADING ○ TRENCH BACKFILL _____ ○ OTHER _____

PROJECT NAME: MEADOWOOD	PROJECT NO.: 6931-42-07
CLIENT: PARDEE PHONE:	PROJECT MANAGER: RA FIELD TECHNICIAN/AUTHOR: DAR 1448
CONTRACTOR: PENNTECK PHONE:	PROJECT BRIEFING ○ YES BY DATE ◉ PREVIOUSLY BRIEFED
CONTRACTOR'S SUPERINTENDENT/FOREMAN: LANCE	PLANS AND SPECIFICATIONS ◉ UNCHANGED TITLE BY
EQUIPMENT WORKING AND TYPE OF COMPACTOR: ⑥ 657's ① 834 ① BLADE ② H2O TRUCKS ③ DOZERS ① 5130 ⑧ 777's	APPROVAL DATE REV. DATE WEATHER SUNNY SOURCE OF FILL ONSITE

FOLLOW-UP INVENTORY

DID YOU REVIEW PREVIOUS FLLLOW-UP FIELD REPORT? ○ NO ◉ YES

LIST REPORT NUMBERS WHERE FOLLOW-UP WAS SATISFIED BY THIS REPORT: Ø

LIST REPORT NUMBERS STILL REQUIRING FOLLOW-UP: Ø

WHAT IN PARTICULAR SHOULD BE OBSERVED, CHECKED, OR TESTED DURING NEXT VISIT?

WAS A MEMO ISSUED TODAY? ○ NO ◉ YES MEMO NO. 3 NOTICE 24 HRS. FOR GEOLOGIST.

CONTRACTOR/FIELD TECHNICIAN ACTIVITIES – INDICATE ACTIVITIES YOU DID AND DID NOT OBSERVE. DOCUMENT CONVERSATIONS, OBSERVATIONS, OR OCCURRENCES, DEEMED SIGNIFICANT TO THE PROGRESS OF WORK, BE SPECIFIC AS TO WHO, WHAT, WHEN, AND WHERE.

- ONSITE TO CONTINUE GRADING OPERATIONS.
  - ⑥ 657'S STRIPPING UPPER 1' OF MATERIAL AT PA-2 AND FILLING AT PA 4. 834 ② H2O TRUCKS WURING AND COMPACTING FILL. ② LABORERS PICKING DEBRIS.
  - 5130 CONTINUES WITH LOADING AT PA5A CONCRETE RUBBLE AND FILLING AT PA6A. ① DOZER ① H2O PROCESSING FILL AREA.
- OPERATIONS OF BOTH CUTS / FILLS CONTINUED UNTIL END OF DAY.
  - 657'S SHUT DOWN 4:00
  - 5130 ② TRUCKS SHUT DOWN
- TEST PITS / OBSERVATION HOLES AT CONCRETE SHOWED ADEQUATE MOISTURE AND FINES.
- TESTS PASSED ≥ 90% R.C

FIELD TECHNICIAN (PRINT) Daniel Roberts	DATE 2/18/20	HOURS 8	O.T. 1.5	LISTS ON-SITE VISITORS	
NUMBER OF DENSITY TESTS TAKEN 6-8				CLIENT REPRESENTATIVE SIGNATURE X	

NOTICE: The professional engineer is represented on site soleley to observe operations of the contractor identified, form opinions about the adequacy of those operations, and report those opinions to the client. The presence and activities of the engineer's field representative do not relieve the contractor's obligation to meet contractual requirements. The contractor retains sole responsibility for site safety and the methods and sequences of construction.

GEOCON

FIELD REPORT

PAGE _____ OF _____
DAY OF WEEK WEDS
DATE 2/19/20
REPORT NO. 15

● GRADING ○ TRENCH BACKFILL _____ ○ OTHER _____

PROJECT NAME: MEADOWOOD	PROJECT NO.: 6931-42-07
CLIENT: PARDEE PHONE:	PROJECT MANAGER: R.A. FIELD TECHNICIAN/AUTHOR: DAR 1448
CONTRACTOR: RINNETCK PHONE:	PROJECT BRIEFING ○ YES BY: DATE: ● PREVIOUSLY BRIEFED
CONTRACTOR'S SUPERINTENDENT/FOREMAN: LANCE	PLANS AND SPECIFICATIONS ● UNCHANGED TITLE: BY:
EQUIPMENT WORKING AND TYPE OF COMPACTOR: ⑥ 657's ① 834 ③ H2O TRUCK ① 5130 ② 777 ① LOADER ③ D-9	APPROVAL DATE: REV. DATE: WEATHER: SUNNY SOURCE OF FILL: ONSITE

FOLLOW-UP INVENTORY

DID YOU REVIEW PREVIOUS FLLLOW-UP FIELD REPORT? ○ NO ● YES

LIST REPORT NUMBERS WHERE FOLLOW-UP WAS SATISFIED BY THIS REPORT: Ø

LIST REPORT NUMBERS STILL REQUIRING FOLLOW-UP: Ø

WHAT IN PARTICULAR SHOULD BE OBSERVED, CHECKED, OR TESTED DURING NEXT VISIT?

WAS A MEMO ISSUED TODAY? ● NO ○ YES MEMO NO.

CONTRACTOR/FIELD TECHNICIAN ACTIVITIES – INDICATE ACTIVITIES YOU DID AND DID NOT OBSERVE. DOCUMENT CONVERSATIONS, OBSERVATIONS, OR OCCURRENCES, DEEMED SIGNIFICANT TO THE PROGRESS OF WORK. BE SPECIFIC AS TO WHO, WHAT, WHEN, AND WHERE.

- ONSITE TO CONTINUE GRADING OPERATIONS.

AM
- ⑥ 657's CUTTING AT PA-2 FILLING AT PA-4. 10:00 CUT CONTINUED AT PA-2 WITH FILL AT MEADOWOOD ST. APPROX STA 6+40 → 8+60. 834 W/ ② H2O TRUCKS MIXING AND COMPACTING.
- 5130 CONTINUES W/ RUBBLE CUT @ PA5A W/ ② 777 FILLING AT PA5A. ③ D-9 W/ ② H2O TRUCKS MIXING FILL, TRUCKS WHEEL ROLLING FOR COMPACTION.

PM
- FILL AREA @ MEADOW STREET DRN ① D-9 ① H2O MIXING FILL AREA. 657's CONTINUE CUT @ PA2 W/ FILL AT PA 4. LATE 657's CUTTING @ CANYON REMOVAL PA5A FILLING AT PA 5A.
- 5130 CUTTING AT PA4 CUT AREA FILLING AT SLOT NORTHEAST PA 4.
- CREW WORKED LATE LAYING SUB DRAIN @ PA5A.
- TESTS PASSED ≥ 90% R.C.

FIELD TECHNICIAN (PRINT)	DATE	HOURS	OT	LISTS ON-SITE VISITORS
Daniel Roberts	2/19/20	8.0	.5	R.A.

NUMBER OF DENSITY TESTS TAKEN: 6-9

CLIENT REPRESENTATIVE SIGNATURE: X

NOTICE: The professional engineer is represented on site soleley to observe operations of the contractor identified, form opinions about the adequacy of those operations, and report those opinions to the client. The presence and activities of the engineer's field representative do not relieve the contractor's obligation to meet contractual requirements. The contractor retains sole responsibility for site safety and the methods and sequences of construction.

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FIELD REPORT

PAGE _____ OF _____
DAY OF WEEK THURS
DATE 2/27/20
REPORT NO. 29

● GRADING ○ TRENCH BACKFILL _____ ○ OTHER _____

PROJECT NAME: MEADOWOOD	PROJECT NO.: 6931-42-07
CLIENT: PARDEE PHONE:	PROJECT MANAGER: R.A FIELD TECHNICIAN/AUTHOR: DAR 1448
CONTRACTOR: PINNACK PHONE:	PROJECT BRIEFING ○ YES DATE: BY: ● PREVIOUSLY BRIEFED
CONTRACTOR'S SUPERINTENDENT/FOREMAN: LANCE	PLANS AND SPECIFICATIONS ● UNCHANGED TITLE: BY:
EQUIPMENT WORKING AND TYPE OF COMPACTOR: ⑥ 657'S ④ H2O TRUCKS ③ D-9 ① 834 ① BLADE ② 777 ① 5130	APPROVAL DATE: REV. DATE: WEATHER: SUNNY SOURCE OF FILL:

FOLLOW-UP INVENTORY

DID YOU REVIEW PREVIOUS FLLLOW-UP FIELD REPORT? ○ NO ● YES

LIST REPORT NUMBERS WHERE FOLLOW-UP WAS SATISFIED BY THIS REPORT: Ø

LIST REPORT NUMBERS STILL REQUIRING FOLLOW-UP: Ø

WHAT IN PARTICULAR SHOULD BE OBSERVED, CHECKED, OR TESTED DURING NEXT VISIT?

WAS A MEMO ISSUED TODAY? ● NO ○ YES MEMO NO.

CONTRACTOR/FIELD TECHNICIAN ACTIVITIES – INDICATE ACTIVITIES YOU DID AND DID NOT OBSERVE. DOCUMENT CONVERSATIONS, OBSERVATIONS, OR OCCURRENCES, DEEMED SIGNIFICANT TO THE PROGRESS OF WORK. BE SPECIFIC AS TO WHO, WHAT, WHEN, AND WHERE.

- ONSITE TO CONTINUE GRADING OPERATIONS.
  - 5130 ② 777 CONTINUE W/ CANYON RUBBLE REMOVAL @ PA 5A W/ TRUCKS FILLING AT PA5A. ① D-9 ② H2O PROCESSING FILL AREA.
  - ⑥ 657'S CUTTING AT PA 2 FILLING AT PA5A. 834 ② H2O TRUCKS MIXING COMPACTING FILL AREA. 1st REMOVAL FINISHED @ 2:00, 657'S SWITCHED CUT TO STREET OX @ PA 5B WITH FILL @ LOTS 229 → 241.
  - OPERATIONS OF 5130 / 657'S CONTINUED WITH LITTLE OR NO CHANGE UNTIL END OF DAY.
  - D-9 W/ 5X5 SHEEPSFOOT WORKED LATE TO BACKROLL NORTH FACING SLOPE OF LOTS 241 → 233.
- TESTS PASSED ≥ 90% R.C.
- OBSERVATION PITS @ 5130 FILL PASSED.

FIELD TECHNICIAN (PRINT)	DATE	HOURS	O.T.	LISTS ON-SITE VISITORS
Daniel Roberts	2/27/20	8	1	
NUMBER OF DENSITY TESTS TAKEN: 9-10				CLIENT REPRESENTATIVE SIGNATURE: X

NOTICE: The professional engineer is represented on site soleley to observe operations of the contractor identified, form opinions about the adequacy of those operations, and report those opinions to the client. The presence and activities of the engineer's field representative do not relieve the contractor's obligation to meet contractual requirements. The contractor retains sole responsibility for site safety and the methods and sequences of construction.

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FIELD REPORT

PAGE _____ OF _____
DAY OF WEEK FRI
DATE 2/28/20
REPORT NO. 22

◉ GRADING ○ TRENCH BACKFILL _____ ○ OTHER _____

PROJECT NAME: MEADOWOOD	PROJECT NO.: 6931-42-07
CLIENT: PARDEE — PHONE	PROJECT MANAGER: R. A — FIELD TECHNICIAN/AUTHOR: DAR 1448
CONTRACTOR: PINNACK — PHONE	PROJECT BRIEFING ○ YES — DATE _____ BY _____ ◉ PREVIOUSLY BRIEFED
CONTRACTOR'S SUPERINTENDENT/FOREMAN: LANCE	PLANS AND SPECIFICATIONS ◉ UNCHANGED TITLE _____ BY _____
EQUIPMENT WORKING AND TYPE OF COMPACTOR: ⑥ 657 ⑤ H2O TRUCKS ③ D-9 ① 5130 ② 777 ① BLADE ① 834	APPROVAL DATE _____ REV. DATE _____ WEATHER SUNNY SOURCE OF FILL ONSITE

FOLLOW-UP INVENTORY

DID YOU REVIEW PREVIOUS FLLLOW-UP FIELD REPORT? ○ NO ◉ YES

LIST REPORT NUMBERS WHERE FOLLOW-UP WAS SATISFIED BY THIS REPORT: Ø

LIST REPORT NUMBERS STILL REQUIRING FOLLOW-UP: Ø

WHAT IN PARTICULAR SHOULD BE OBSERVED, CHECKED, OR TESTED DURING NEXT VISIT?

WAS A MEMO ISSUED TODAY? ◉ NO ○ YES MEMO NO.

CONTRACTOR/FIELD TECHNICIAN ACTIVITIES — INDICATE ACTIVITIES YOU DID AND DID NOT OBSERVE. DOCUMENT CONVERSATIONS, OBSERVATIONS, OR OCCURRENCES, DEEMED SIGNIFICANT TO THE PROGRESS OF WORK. BE SPECIFIC AS TO WHO, WHAT, WHEN, AND WHERE.

- ONSITE TO CONTINUE GRADING OPERATIONS.

AM

- ①5130 ②777 CONTINUE W/ CANYON REMOVAL AT PASA FILLING AT PASA NORTH OF FUTURE MEADOWOOD RD.
- ⑥ 657's CUTTING STREET OX AT PA5B FILLING AT PA5B APPROX LOTS 229-234. 9:00 H2O TRUCK BROKE IN FILL. CUT SWITCHED TO PA 2 WITH FILL @ APPROVED BOTTOM PA 2. 834 H2O MIXING COMPACTING FILL AREA.

PM

- 657's CUT SWITCHED TO STREET / PAD OX AT PA5B. 657's FILLING PA5B AT LOT 244/243 → 232, APPROVED STREET OX.
- 5130/777 CUT/FILL CONTINUED AS IN AM WITH LITTLE OR NO CHANGE UNTIL END OF DAY.

- TESTS PASSED ≥90% R.C.
- OBSERVATION PITS @ ROCK FILL PASSED.

FIELD TECHNICIAN (PRINT): Daniel Roberts	DATE: 2/28/20	HOURS: 8	O.T.: 1.5	LISTS ON-SITE VISITORS: R.A	
NUMBER OF DENSITY TESTS TAKEN: G-10				CLIENT REPRESENTATIVE SIGNATURE	

NOTICE: The professional engineer is represented on site soleley to observe operations of the contractor identified, form opinions about the adequacy of those operations, and report those opinions to the client. The presence and activities of the engineer's field representative do not relieve the contractor's obligation to meet contractual requirements. The contractor retains sole responsibility for site safety and the methods and sequences of construction.

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FIELD REPORT

PAGE _____ OF _____
DAY OF WEEK TUES
DATE 3/3/20
REPORT NO. 24

● GRADING ○ TRENCH BACKFILL _____ ○ OTHER _____

PROJECT NAME: MEADOWOOD	PROJECT NO.: 6931-42-07
CLIENT: PARDEE PHONE:	PROJECT MANAGER: R.A. FIELD TECHNICIAN/AUTHOR: 1448 DAR
CONTRACTOR: PINNACK PHONE:	PROJECT BRIEFING ○ YES BY: DATE: ● PREVIOUSLY BRIEFED
CONTRACTOR'S SUPERINTENDENT/FOREMAN: LANCE	PLANS AND SPECIFICATIONS ● UNCHANGED TITLE: BY:
EQUIPMENT WORKING AND TYPE OF COMPACTOR: ①5130 ②777 ④ H2O TRUCKS ③ D-9 ①834 ① BLADE ⑥ 657's	APPROVAL DATE: REV. DATE: WEATHER: SUNNY SOURCE OF FILL:

FOLLOW-UP INVENTORY

DID YOU REVIEW PREVIOUS FLLLOW-UP FIELD REPORT? ○ NO ● YES

LIST REPORT NUMBERS WHERE FOLLOW-UP WAS SATISFIED BY THIS REPORT: Ø

LIST REPORT NUMBERS STILL REQUIRING FOLLOW-UP: Ø

WHAT IN PARTICULAR SHOULD BE OBSERVED, CHECKED, OR TESTED DURING NEXT VISIT?

WAS A MEMO ISSUED TODAY? ○ NO ○ YES MEMO NO.

CONTRACTOR/FIELD TECHNICIAN ACTIVITIES — INDICATE ACTIVITIES YOU DID AND DID NOT OBSERVE. DOCUMENT CONVERSATIONS, OBSERVATIONS, OR OCCURRENCES. DEEMED SIGNIFICANT TO THE PROGRESS OF WORK. BE SPECIFIC AS TO WHO, WHAT, WHEN, AND WHERE.

- ONSITE TO CONTINUE GRADING OPERATION.

AM
- ⑥ 657's CUTTING AT PA-2 FILLING AT PA 2. 834 ④ H2O TRUCKS PROCESSING FILL AREA.
- 5130 LOADING ② 777 W/ CUT AT PA5A W/ TRUCKS FILLING AT PA5A NORTH OF MEADOWOOD RD APPROX STA 11+50 → 15+00. ① D-9 ② H2O TRUCKS PROCESSING FILL AREA.

PM
- ⑥ 657's CONTINUED W/ REMOVAL AT PA-2 MOVING EAST, W/ FILL @ PA-2. 2:00 CUT SWITCHED TO PA5A REMOVING CUT FROM DAYLIGHT TO FILL AREA, FILLING AT MEADOWOOD STREET STA 11+50 → 15+00.
- 5130 ② 777 CONTINUED W/ CUT/FILL AS IN AM.
- 2:45 657 CUT / FILL BACK AT PA-2 FOR END OF DAY.
- D-9 BACKRAILED SLOPES @ PA5B
- TEST BOTH FILLS PASSED 90% R.C.

FIELD TECHNICIAN (PRINT)	DATE	HOURS	O/T	LISTS ON-SITE VISITORS
DANIEL ROBERTS	3/3/20	8	1.5	
NUMBER OF DENSITY TESTS TAKEN: G-10				CLIENT REPRESENTATIVE SIGNATURE: X

NOTICE: The professional engineer is represented on site soleley to observe operations of the contractor identified, form opinions about the adequacy of those operations, and report those opinions to the client. The presence and activities of the engineer's field representative do not relieve the contractor's obligation to meet contractual requirements. The contractor retains sole responsibility for site safety and the methods and sequences of construction.

GEOCON

FIELD REPORT

PAGE _____ OF _____
DAY OF WEEK WEDS
DATE 3/4/20
REPORT NO. 35

● GRADING ○ TRENCH BACKFILL _____ ○ OTHER _____

PROJECT NAME: MEADOWOOD	PROJECT NO.: 6931-42-07
CLIENT: PARDEE PHONE:	PROJECT MANAGER: RA FIELD TECHNICIAN/AUTHOR: DAR 1448
CONTRACTOR: PINNICK PHONE:	PROJECT BRIEFING ○ YES BY: DATE: ◉ PREVIOUSLY BRIEFED
CONTRACTOR'S SUPERINTENDENT/FOREMAN: LANCE	PLANS AND SPECIFICATIONS ◉ UNCHANGED TITLE: BY:
EQUIPMENT WORKING AND TYPE OF COMPACTOR: ②657's ②777 ①5130 ②H2O TRUCKS ①834 ①D-9	APPROVAL DATE: REV. DATE: WEATHER SUNNY SOURCE OF FILL:

FOLLOW-UP INVENTORY

DID YOU REVIEW PREVIOUS FLLLOW-UP FIELD REPORT? ○ NO ◉ YES

LIST REPORT NUMBERS WHERE FOLLOW-UP WAS SATISFIED BY THIS REPORT: Ø

LIST REPORT NUMBERS STILL REQUIRING FOLLOW-UP: Ø

WHAT IN PARTICULAR SHOULD BE OBSERVED, CHECKED, OR TESTED DURING NEXT VISIT?

WAS A MEMO ISSUED TODAY? ◉ NO ○ YES MEMO NO.

CONTRACTOR/FIELD TECHNICIAN ACTIVITIES – INDICATE ACTIVITIES YOU DID AND DID NOT OBSERVE. DOCUMENT CONVERSATIONS, OBSERVATIONS, OR OCCURRENCES, DEEMED SIGNIFICANT TO THE PROGRESS OF WORK. BE SPECIFIC AS TO WHO, WHAT, WHEN, AND WHERE.

– ONSITE TO CONTINUE GRADING OPERATION.

AM

– ② 657's CUTTING AT PA 2 FILLING AT PIPER APPROVED RENEWAL PA 2. 834 ② H2O TRUCKS PROCESSING FILL AREA.

– 5130 ①777 CUTTING AT PA5A W/ FILL AREA AT PA-5A. ①D-9 W/ ② H2O TRUCKS PROCESSING FILL W/ THEIN LIFTS AND ADEQUATE H2O.

PM

– 657's STRIPPING TOP 1' ON EAST AND SOUTHSIDES OF PA-2 W/ 657's FILLING AT PA5A WEST OF LOTS 1-5 AND ROAD AREA.

– 3:00 657's CUTTING @ PA2 FILLING AT PA2. (4:00)

– 5130 CUTTING @ TOE OF SLOPE SOUTHERN PL PA5A W/ TRUCKS FILLING AT PA5A. (5:30)

– TESTS PASSED I90's R.C.

FIELD TECHNICIAN (PRINT): Dane Roberts	DATE: 3/4/20	HOURS: 8	O.T.: 1.5	LISTS ON-SITE VISITORS
NUMBER OF DENSITY TESTS TAKEN: 6-10				CLIENT REPRESENTATIVE SIGNATURE: X

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GEOCON

FIELD REPORT

PAGE _____ OF _____
DAY OF WEEK FRI
DATE 3/6/20
REPORT NO. 27

● GRADING ○ TRENCH BACKFILL _____ ○ OTHER _____

PROJECT NAME: MEADOWOOD	PROJECT NO.: 6931-42-07
CLIENT: PARDEE PHONE:	PROJECT MANAGER: R.A FIELD TECHNICIAN/AUTHOR: DAR 1448
CONTRACTOR: PINNACK PHONE:	PROJECT BRIEFING ○ YES BY: DATE: ● PREVIOUSLY BRIEFED
CONTRACTOR'S SUPERINTENDENT/FOREMAN: LANCE	PLANS AND SPECIFICATIONS ● UNCHANGED TITLE: BY:
EQUIPMENT WORKING AND TYPE OF COMPACTOR: ⑥ 657 ① 834 ④ H2O TRUCKS ③ D-9 ① D-8 ① BLADE ① 5130 ② 777	APPROVAL DATE: REV. DATE: WEATHER SUNNY SOURCE OF FILL

FOLLOW-UP INVENTORY

DID YOU REVIEW PREVIOUS FLLLOW-UP FIELD REPORT? ○ NO ● YES

LIST REPORT NUMBERS WHERE FOLLOW-UP WAS SATISFIED BY THIS REPORT: Ø

LIST REPORT NUMBERS STILL REQUIRING FOLLOW-UP: Ø

WHAT IN PARTICULAR SHOULD BE OBSERVED, CHECKED, OR TESTED DURING NEXT VISIT?

WAS A MEMO ISSUED TODAY? ● NO ○ YES MEMO NO.

CONTRACTOR/FIELD TECHNICIAN ACTIVITIES — INDICATE ACTIVITIES YOU DID AND DID NOT OBSERVE. DOCUMENT CONVERSATIONS, OBSERVATIONS, OR OCCURRENCES, DEEMED SIGNIFICANT TO THE PROGRESS OF WORK. BE SPECIFIC AS TO WHO, WHAT, WHEN, AND WHERE.

- ONSITE TO CONTINUE GRADING OPERATIONS.

AM
- ⑥ 657's FILLING AT PA 2 W/ REMOVAL AT EAST / SOUTHSIDES OF PA 2.
- ① D-8 TRACK WALKING SLOPES AT PA 5B LOTS 229 → 244.
- 5130 CUTTING AT PA 5A W/ ② 777 FILLING AT PA 5A APPROX LOTS 1-6, 25-19, 28-33. D-9 W/ ② H2O TRUCKS PROCESSING FILL AREA.
- ① D-9 CUTTING OX ON LOTS 245-248.

PM
- 657's CONTINUE REMOVAL AT PA 2 WITH FILL AT PA 2. (4:00)
- OX AT LOTS 245-248 FROM TOE SLOPE TO HALF OF PAD COMPLETED.
- 5130 CUTTING AT PA 5A WITH FILL AT MEADOWOOD ST. APPROX STA → . (5:30)
- TESTS PASSED @ 90% R.C.
- SLOPE TESTS AT LOTS 229 → 233 PASSED @ 90% R.C.
- CONTRACTOR WILL BE WORKING 5/7/20 SAT.

FIELD TECHNICIAN (PRINT): Daniel Roberts	DATE: 3/6/20	HOURS: 8	O.T.: 1.5	LISTS ON-SITE VISITORS: R.A
NUMBER OF DENSITY TESTS TAKEN: 9-16				CLIENT REPRESENTATIVE SIGNATURE: X

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GEOCON

FIELD REPORT

PAGE _____ OF _____
DAY OF WEEK THUR
DATE 3/5/20
REPORT NO. 26

◉ GRADING ○ TRENCH BACKFILL _____ ○ OTHER _____

PROJECT NAME: MEADOWOOD	PROJECT NO.: 6931-42-07
CLIENT: PARDEE PHONE:	PROJECT MANAGER: R.A FIELD TECHNICIAN/AUTHOR: DAR 1448
CONTRACTOR: PENNICK PHONE:	PROJECT BRIEFING ○ YES BY: DATE: ◉ PREVIOUSLY BRIEFED
CONTRACTOR'S SUPERINTENDENT/FOREMAN: LANCE	PLANS AND SPECIFICATIONS ○ UNCHANGED TITLE: BY:
EQUIPMENT WORKING AND TYPE OF COMPACTOR: ⑥657 ⑨H2O ③D-9 ①5130 ②777 ①834 ①LOADER ①D-8	APPROVAL DATE: REV. DATE: WEATHER: SUNNY SOURCE OF FILL:

FOLLOW-UP INVENTORY

DID YOU REVIEW PREVIOUS FLLLOW-UP FIELD REPORT? ○ NO ◉ YES

LIST REPORT NUMBERS WHERE FOLLOW-UP WAS SATISFIED BY THIS REPORT: Ø

LIST REPORT NUMBERS STILL REQUIRING FOLLOW-UP: Ø

WHAT IN PARTICULAR SHOULD BE OBSERVED, CHECKED, OR TESTED DURING NEXT VISIT?

WAS A MEMO ISSUED TODAY? ◉ NO ○ YES MEMO NO.

CONTRACTOR/FIELD TECHNICIAN ACTIVITIES – INDICATE ACTIVITIES YOU DID AND DID NOT OBSERVE. DOCUMENT CONVERSATIONS, OBSERVATIONS, OR OCCURRENCES, DEEMED SIGNIFICANT TO THE PROGRESS OF WORK. BE SPECIFIC AS TO WHO, WHAT, WHEN, AND WHERE.

- ONSITE TO CONTINUE GRADING OPERATIONS.

AM
- ⑥ 657's CONTINUE W/ REMOVAL AT PA-2 FILLING AT PA 2. 834 ② H2O TRUCKS PROCESSING FILL AREA.
- 5130 CUTTING AT SLOPE SOUTHERN PL PASA CANYON REMOVAL. CONCRETE RUBBLE/ROCK
- ② 777 FILLING AT PASA. ① D-9 ② H2O TRUCKS PROCESSING MATERIAL.
- ① D-8 SHAPING AND TRACK WALKING SLOPES AT REAR YARDS PA 5B LOTS 229-244.

PM
- OPERATIONS OF CUT/FILLS FOR BOTH SPREADS CONTINUED WITH LITTLE OR NO CHANGE UNTIL END OF DAY. (657 4:00)(5130 5:30)
- TESTS PASSED >90% R.C.

FIELD TECHNICIAN (PRINT): Daniel Roberts	DATE: 3/5/20	HOURS: 8	O.T.: 1.5	LISTS ON-SITE VISITORS:	
NUMBER OF DENSITY TESTS TAKEN: 6-10				CLIENT REPRESENTATIVE SIGNATURE: X	

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GEOCON

FIELD REPORT

PAGE _____ OF _____
DAY OF WEEK MON
DATE 3/9/20
REPORT NO. 289

◉ GRADING ○ TRENCH BACKFILL _____ ○ OTHER _____

PROJECT NAME: MEADOWOOD	PROJECT NO.: 6931-42-07
CLIENT: PARDEE — PHONE	PROJECT MANAGER: R.A — FIELD TECHNICIAN/AUTHOR: DAR 1448
CONTRACTOR: PENNTECK — PHONE	PROJECT BRIEFING ○ YES — DATE _____ BY _____ ◉ PREVIOUSLY BRIEFED
CONTRACTOR'S SUPERINTENDENT/FOREMAN: LANCE	PLANS AND SPECIFICATIONS ◉ UNCHANGED — TITLE _____ BY _____
EQUIPMENT WORKING AND TYPE OF COMPACTOR: ⑥657's ①834 ①D-6 ③H2O TRUCKS ①5130 ②777 ①LOADER D	APPROVAL DATE _____ REV. DATE _____
	WEATHER PARTLY CLOUDY
	SOURCE OF FILL

FOLLOW-UP INVENTORY

DID YOU REVIEW PREVIOUS FLLLOW-UP FIELD REPORT? ○ NO ◉ YES

LIST REPORT NUMBERS WHERE FOLLOW-UP WAS SATISFIED BY THIS REPORT: Ø

LIST REPORT NUMBERS STILL REQUIRING FOLLOW-UP: Ø

WHAT IN PARTICULAR SHOULD BE OBSERVED, CHECKED, OR TESTED DURING NEXT VISIT?

WAS A MEMO ISSUED TODAY? ◉ NO ○ YES MEMO NO.

CONTRACTOR/FIELD TECHNICIAN ACTIVITIES

– INDICATE ACTIVITIES YOU DID AND DID NOT OBSERVE. DOCUMENT CONVERSATIONS, OBSERVATIONS, OR OCCURRENCES, DEEMED SIGNIFICANT TO THE PROGRESS OF WORK. BE SPECIFIC AS TO WHO, WHAT, WHEN, AND WHERE.

- ONSITE TO CONTINUE GRADING OPERATIONS.
  - ⑥ 657's CUTTING AT PA 2 FILLING AT PA 2. 834 W/ ② H2O TRUCKS MIXING AND COMPACTING FILL AREA.
  - 5130 CUTTING AT PA5A W/ ② 777 FILLING AT APPROX LOTS
  - ① D-8 PUSHING MATERIAL FROM FRONT OF LOT 248-245 PASS TO BACKHALF OF LOTS CONVERTING SUB DRAIN @ BACK OF LOTS / TOP OF EXISTING SLOPE.

- OPERATIONS CONTINUE AS IN AM WITH LITTLE OR NO CHANGE UNTIL END OF DAY.

- DOZERS, H2O, 834's WORKED LATE TO SEAL OF PROJECT FOR UP COMING RAIN.

- TESTS PASSED ≥ 90% R.C.

GREG DURKEE 8.0

FIELD TECHNICIAN (PRINT)	DATE	HOURS	O.T.	LISTS ON-SITE VISITORS
Dana Roberts	3/9/20	8.0	.5	
NUMBER OF DENSITY TESTS TAKEN: 6-13				CLIENT REPRESENTATIVE SIGNATURE X

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Michael Baker
INTERNATIONAL

Appendix H: Noise Assessment

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Noise Impact Assessment
for the
Bonsall Unified School District Citro School

San Diego County, California

Prepared By:

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS
55 Hanover Lane, Suite A
Chico, California 95973

March 2023

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Attachment B – Federal Highway Administration Roadway Construction Noise Outputs

LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CNEL	Community Noise Equivalent Level
County	San Diego County
dB	Decibel
dBA	Decibel is A-weighted
EIR	Environmental Impact Report
FHWA	Federal Highway Administration
FICON	Federal Interagency Committee on Noise
FTA	Federal Transit Administration
HVAC	Heating, Ventilation, and Air Conditioning
Hz	Hertz
LED	Light-emitting diode
L_{dn}	Day-night average sound level
L_{eq}	Measure of ambient noise
L_{max}	The maximum A-weighted noise level during the measurement period.
L_{min}	The minimum A-weighted noise level during the measurement period.
MMRP	Mitigation Monitoring and Reporting Program
NIOSH	National Institute for Occupational Safety and Health
OPR	Office of Planning and Research
OSHA	Federal Occupational Safety and Health Administration
PA-2	Planning Area-2
PPV	Peak particle velocity
Project	Bonsall Unified School District Project
RCNM	Roadway Construction Noise Model
RMS	Root mean square
SR	State Route
STC	Sound Transmission Class
VdB	Vibration Velocity Level

1.0 INTRODUCTION

This report documents the results of a Noise Impact Assessment completed for the Bonsall Unified School District Citro School (Project), which includes the proposal to construct a school accommodating TK through 8th grade on a 12.8-acre site in unincorporated San Diego County in the community of Fallbrook. This assessment was prepared as a comparison of predicted Project noise levels to noise standards promulgated by the San Diego County General Plan Noise Element and San Diego County Code. The purpose of this report is to estimate Project-generated noise and to determine the level of impact the Project would have on the environment.

1.1 Meadowood Specific Plan Environmental Impact Report

The Meadowood Specific Plan Environmental Impact Report (EIR) (SCH# 2004051028) was certified by the County of San Diego Board of Supervisors on January 11, 2012. The Specific Plan EIR evaluates development of 355 single family and 489 multi-family dwellings, 8 acres of Parkland, a 12.7-acre elementary school site, preservation of 49.3 acres of agricultural lands and 128.5 acres of preserved open space. In addition, the EIR analyzed the proposal to construct a north-south roadway through the site (Horse Ranch Creek Road) and improvements to the off-site roadways, such as State Route (SR) 76, Pankey Road and Pala Mesa Drive. The Specific Plan EIR identifies significance thresholds for all project impacts and includes specific mitigation measures to address both site-specific and cumulative effects of development. Among other issues, the Specific Plan EIR evaluates the effects of noise resulting from Specific Plan development.

Proposed mitigation measures were found to reduce the effects of buildout under the Specific Plan to a less than significant level for all noise–related issues. A Mitigation Monitoring and Reporting Program (MMRP) was prepared and adopted with the Specific Plan. The MMRP is a binding document and would be applicable to all development in the Meadowood Specific Plan area, including the proposed Bonsall Unified School District Citro School.

1.2 Project Location and Description

The Project Site, located in the unincorporated community of Fallbrook, encompasses 11.2 acres of the 12.8 acres of Planning Area-2 (PA-2) of the Approved Meadowood Specific Plan Project. The Site is bound by Horse Ranch Creek Road to the west and south, Rosemary's Mountain to the east, and Shire Court to the north, and lays on Lot 54, Tract 5354, Map 16418 of the Meadowood Specific Plan. Regional access to the Site is achieved by Interstate 15, which is 0.3 mile to the west and SR 76, also known as Pala Road, which is 0.4 mile to the south.

The Project Site is a graded, dirt lot currently used for construction staging. In the northwest corner, the Site is elevated above Horse Ranch Creek Road and Shire Court by approximately 10 feet. The Site at the end of the Shire Court cul-de-sac is at-grade with the street. The southern end of the Site is also at-grade with Horse Ranch Creek Road. Site perimeters along Shire Court and Horse Ranch Creek Road are sloped and landscaped with ornamental vegetation. The area above the slope is flat and surrounded by a chain link fence. A concrete lined drainage channel runs along the western perimeter and drains to a storm basin, immediately south of the Site.

The Project proposes the development and operation of a public school. The proposed campus has been designed for the operation of a K-8 school, although the school could operate a K-5, K-6, or K-8 program. Classroom buildings are proposed in the north and northwest portions of the campus. The administration, library, and multipurpose buildings are generally in the northcentral portion of the campus. Outdoor fields and hardtop play areas are proposed in the southwest, and surface parking would be in the southeast (see Figure 1-1. *Project Site Plan*). The proposed campus includes four sets of classroom buildings. Two in the southwest portion of the site would accommodate kindergarten and the lower grades. The two buildings in the northeast would be used by the upper grades. The main entrance onto the campus would be via the administration building, near the parking lot. Library and multipurpose buildings would separate the lower grades from the upper grades. The multipurpose building would operate as a gymnasium and indoor lunchroom and would include a small kitchen. An outdoor lunch shelter would be constructed east of the multipurpose building. The Project also proposes a music and art building, located between the upper grade classroom buildings in the northeast portion of the campus (see Figure 1-1). Outdoor recreational facilities, including a multipurpose field and basketball courts, are proposed on the northwest corner of the Project site. A kinder play area would be adjacent to the kindergarten building on the southwest portion of the Site. An additional outdoor play area is proposed in the northeast corner of the campus (see Figure 1-1).

Two vehicle access points would be provided from Shire Court and Horse Ranch Creek Road. The Shire Court entrance would be ingress-only from the end of the cul-de-sac that would connect to an onsite driveway along the northeast and eastern perimeters. The driveway would break off into three separate TK/K, primary grades, and upper grades curbside loading areas in the northeast portion of the campus, mid-eastern area of the campus, and southern portion of the campus, respectively. Vehicles would exit the campus via the second driveway at the southern end of the Project Site on Horse Ranch Creek Road. A fire access lane would be provided on the western perimeter with access from the Shire Court entrance and the parking lot.

Drought tolerant landscaping is proposed along the western and northern perimeters of the campus. Other proposed sustainable features include:

- Building oriented to maximize daylighting and minimize the need for artificial lights.
- Increased insulation values in walls and attic spaces.
- Installation of high-efficiency windows and doors.
- Installation of efficient heating, ventilation, and air conditioning (HVAC) systems for all building spaces.
- Use of Energy Star appliances.
- Installation of water-efficient plumbing fixtures for toilets and sinks.
- Installation of tankless water heater systems.
- Installation of light-emitting diode (LED) technology for all interior and exterior building areas.
- Use of recycled water for common area landscape irrigation.

- Use of drought-tolerant plants in landscape design to minimize irrigation onsite.
- Installation of water-efficient irrigation systems with smart sensor controls.
- Installation of EV charging stations.
- Installation of solar panels.

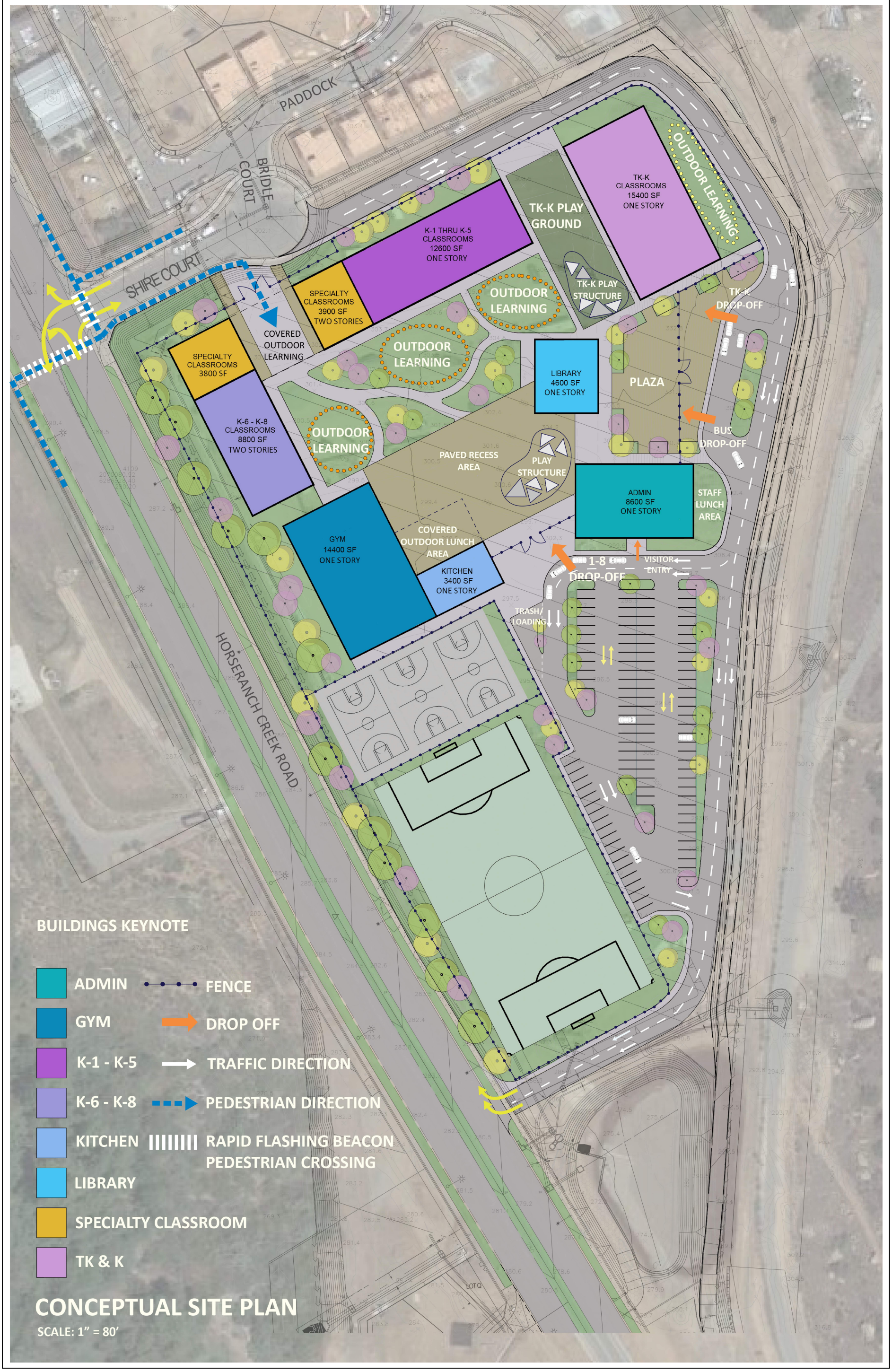
The proposed school would offer one of three elementary programs: TK through 5th grade, TK through 6th grade, or TK through 8th grade. Based on an ongoing demographics study, the Bonsall Unified School District projects the school to have an enrollment of 450 to 500 TK-8 students. The campus, however, would be designed to accommodate up to 650 seats, under any of the program configurations. The Bonsall Unified School District anticipates only students residing east of Interstate 15 and north of West Lilac Road would attend the proposed school.

The proposed school would follow the Bonsall Unified School District's standard school calendar, generally from August to June. Summer programs may also be offered. School hours are anticipated to be from 8:00 a.m. to 3:00 p.m., though teachers and staff may arrive up to an hour before and after normal school hours. The proposed campus would have evening and nighttime events such as back-to-school night, open house, talent shows, and awards ceremonies similar to other schools.

Construction of the proposed school is anticipated to start in the first quarter of 2027 and last 18 months. The proposed school would open in fall 2028. Construction phasing is shown in Table 1-1.

Table 1-1. Project Construction Phasing

Construction Activity	Start Date	Finish Date
Site Preparation	March 2027	April 2027
Site Grading	April 2027	May 2027
Building Construction	June 2027	July 2028
Painting	December 2027	January 2027
Paving	April 2028	May 2028



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ENVIRONMENTAL CONSULTANTS

Figure 1-1. Project Site Plan

2022-101 Bonsall USD Citro School

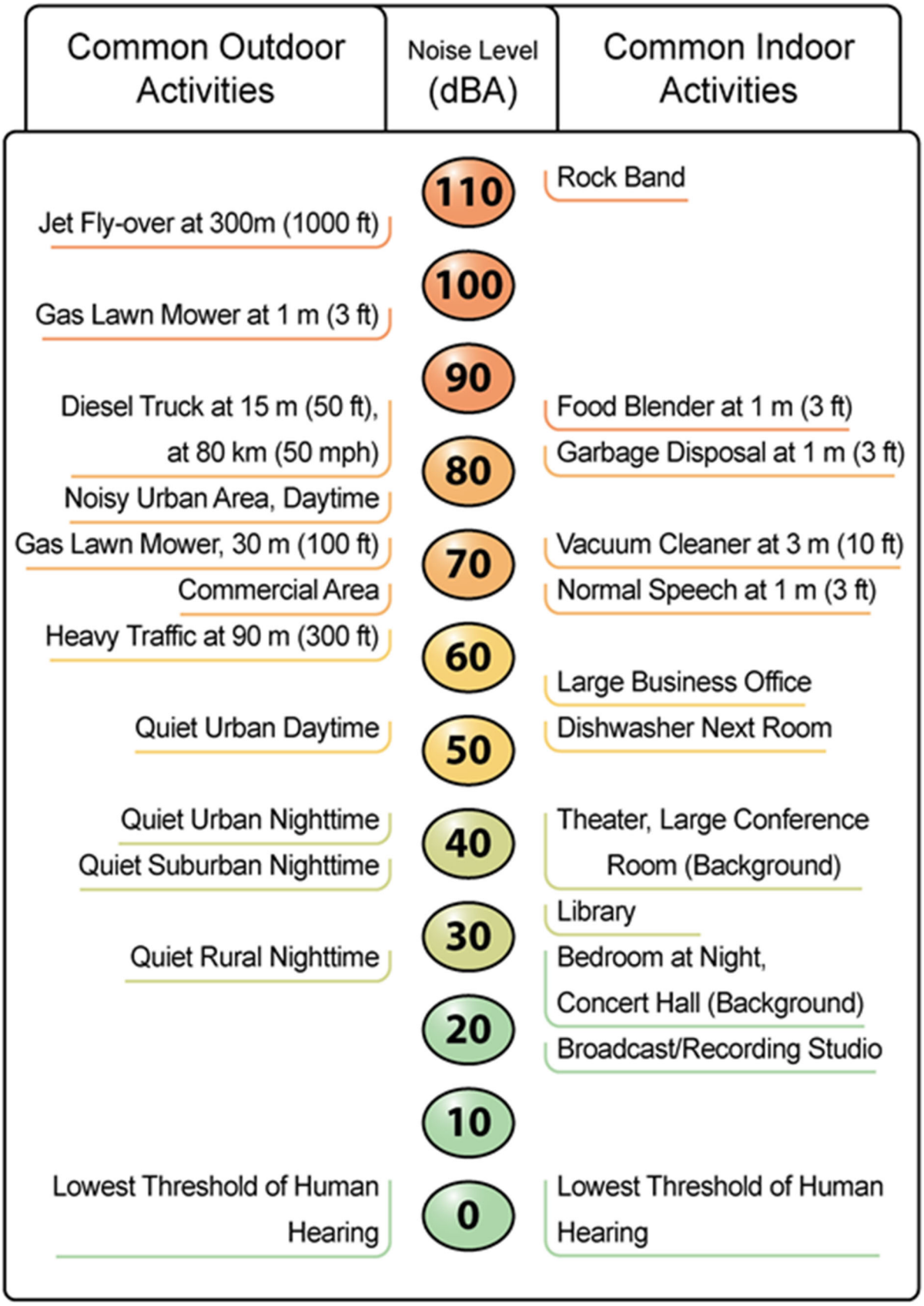
2.0 ENVIRONMENTAL NOISE AND GROUNDBORNE VIBRATION ANALYSIS

2.1 Fundamentals of Noise and Environmental Sound

2.1.1 Addition of Decibels

The decibel (dB) scale is logarithmic, not linear, and therefore sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted (dBA), an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound and twice as loud as a 60-dBA sound. When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be three dB higher than one source under the same conditions (Federal Transit Administration [FTA] 2017). For example, a 65-dB source of sound, such as a truck, when joined by another 65 dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by three dB). Under the decibel scale, three sources of equal loudness together would produce an increase of five dB.

Typical noise levels associated with common noise sources are depicted in Figure 2-1.



Source: California Department of Transportation (Caltrans) 2020a

Figure 2-1. Common Noise Levels

2.1.2 Sound Propagation and Attenuation

Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB (dBA) for each doubling of distance from a stationary or point source (Federal Highway Administration [FHWA] 2017). Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dBA for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics (FHWA 2017). No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dBA per doubling of distance is normally assumed. For line sources, an overall attenuation rate of three dB per doubling of distance is assumed (FHWA 2011).

Noise levels may also be reduced by intervening structures; generally, a single row of detached buildings between the receptor and the noise source reduces the noise level by about five dBA (FHWA 2006), while a solid wall or berm generally reduces noise levels by 10 to 20 dBA (FHWA 2011). However, noise barriers or enclosures specifically designed to reduce site-specific construction noise can provide a sound reduction of 35 dBA or greater (Western Electro-Acoustic Laboratory, Inc. 2000).

To achieve the most potent noise-reducing effect, a noise enclosure/barrier must physically fit in the available space, must completely break the *line of sight* between the noise source and the receptors, must be free of degrading holes or gaps, and must not be flanked by nearby reflective surfaces. Noise barriers must be sizable enough to cover the entire noise source and extend lengthwise and vertically as far as feasibly possible to be most effective.

The limiting factor for a noise barrier is not the component of noise transmitted through the material, but rather the amount of noise flanking around and over the barrier. In general, barriers contribute to decreasing noise levels only when the structure breaks the "line of sight" between the source and the receiver.

The manner in which older buildings in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows (California Department of Transportation [Caltrans] 2002). The exterior-to-interior reduction of newer buildings is generally 30 dBA or more (Harris Miller, Miller & Hanson Inc. 2006). Generally, in exterior noise environments ranging from 60 dBA Community Noise Equivalent Level (CNEL) to 65 dBA CNEL, interior noise levels can typically be maintained below 45 dBA, a typical residential interior noise standard, with the incorporation of an adequate forced air mechanical ventilation system in each residential building, and standard thermal-pane residential windows/doors with a minimum rating of Sound Transmission Class (STC) 28. (STC is an integer rating of how well a building partition attenuates airborne sound. In the U.S., it is widely used to rate interior partitions, ceilings, floors, doors, windows, and exterior wall configurations). In exterior noise environments of 65 dBA CNEL or greater, a combination of forced-air mechanical ventilation and sound-rated construction methods is often required to meet the interior noise level limit. Attaining the necessary noise reduction from exterior to interior spaces is readily achievable in noise environments less than 75 dBA CNEL with

proper wall construction techniques following California Building Code methods, the selections of proper windows and doors, and the incorporation of forced-air mechanical ventilation systems.

2.1.3 Noise Descriptors

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include the average hourly noise level (in L_{eq}) and the average daily noise levels/community noise equivalent level (in L_{dn}/CNEL). The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL are measures of community noise. Each is applicable to this analysis and defined as follows:

- Equivalent Noise Level (L_{eq}) is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- Day-Night Average (L_{dn}) is a 24-hour average L_{eq} with a 10-dBA "weighting" added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn}.
- Community Noise Equivalent Level (CNEL) is a 24-hour average L_{eq} with a 5-dBA weighting during the hours of 7:00 pm to 10:00 pm and a 10-dBA weighting added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the evening and nighttime, respectively.

Table 2-1 provides a list of other common acoustical descriptors.

Table 2-1. Common Acoustical Descriptors

Descriptor	Definition
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micropascals (or 20 micronewtons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micropascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hertz (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sounds are below 20 Hz and ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high-frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
Lmax, Lmin	The maximum and minimum A-weighted noise level during the measurement period.
L01, L10, L50, L90	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, Ldn	A 24-hour average L_{eq} with a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA Ldn.
Community Noise Equivalent Level, CNEL	A 24-hour average L_{eq} with a 5 dBA "weighting" during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.7 dBA CNEL.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends on its amplitude, duration, frequency, and time of occurrence and tonal or informational content, as well as the prevailing ambient noise level.
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.

The A-weighted decibel sound level scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about ±1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends on the distance between the receptor and the noise source. Close to the noise source, the models are accurate to within about ±1 to 2 dBA.

2.1.4 Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL or L_{dn} is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in A-weighted noise levels (dBA), the following relationships should be noted in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in community response would be expected. An increase of 5 dBA is typically considered substantial.
- A 10-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

2.1.5 Effects of Noise on People

2.1.6 Hearing Loss

While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise.

The Occupational Safety and Health Administration (OSHA) has a noise exposure standard that is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over eight hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

2.1.7 Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources.

2.2 Fundamentals of Environmental Groundborne Vibration

2.2.1 Vibration Sources and Characteristics

Sources of earthborne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or manmade causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions).

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

PPV is generally accepted as the most appropriate descriptor for evaluating the potential for building damage. For human response, however, an average vibration amplitude is more appropriate because it takes time for the human body to respond to the excitation (the human body responds to an average vibration amplitude, not a peak amplitude). Because the average particle velocity over time is zero, the RMS amplitude is typically used to assess human response. The RMS value is the average of the amplitude squared over time, typically a 1- sec. period (FTA 2018).

Table 2-2 displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in the table should be interpreted with care since vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high-noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Ground vibration can be a concern in instances where buildings shake, and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. For instance, heavy-duty trucks generally generate groundborne vibration velocity levels of 0.006 PPV at 50 feet under typical circumstances, which as identified in Table 2-2 is considered very unlikely to cause damage to buildings of any type. Common sources for groundborne vibration are planes, trains, and construction activities such as earth-moving which requires the use of heavy-duty earth moving equipment.

Table 2-2. Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibration Levels

Peak Particle Velocity (inches/ second)	Approximate Vibration Velocity Level	Human Reaction	Effect on Buildings
0.006–0.019	64–74	Range of threshold of perception	Vibrations unlikely to cause damage of any type
0.08	87	Vibrations readily perceptible	Threshold at which there is a risk of architectural damage to extremely fragile historic buildings, ruins, ancient monuments
0.1	92	Level at which continuous vibrations may begin to annoy people, particularly those involved in vibration sensitive activities	Threshold at which there is a risk of architectural damage to fragile buildings. Virtually no risk of architectural damage to normal buildings
0.25	94	Vibrations may begin to annoy people in buildings	Threshold at which there is a risk of architectural damage to historic and some old buildings
0.3	96	Vibrations may begin to feel severe to people in buildings	Threshold at which there is a risk of architectural damage to older residential structures
0.5	103	Vibrations considered unpleasant by people subjected to continuous vibrations	Threshold at which there is a risk of architectural damage to new residential structures and Modern industrial/commercial buildings

Source: Caltrans 2020b

3.0 EXISTING ENVIRONMENTAL NOISE SETTING

3.1 Noise Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as hospitals, historic sites, cemeteries, and certain recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses. The nearest noise-sensitive receptor to the Project Site is a large lot residence directly to the east of the northern half of the Site. Additionally, residential development is under construction north of Shire Court.

3.1.1 Existing Ambient Noise Environment

The most common and significant source of noise in the Project Area is the traffic traversing Horse Ranch Creek Road and Interstate 15. According to Table 3.4-4 of the Specific Plan EIR, the Project Site in its current undeveloped state experiences noise levels of approximately 68 dBA CNEL from traffic traversing Horse Ranch Creek Road and Interstate 15. Rosemary's Mountain Rock Quarry to the east is also a noise source affecting the Project Site. According to Figure 3.4-5 of the Specific Plan EIR, the Project Site is located outside of the 60 dBA noise contour produced by operations at the quarry, and the majority of the Site is located outside of the 50 dBA noise contour.

3.1.2 Existing Roadway Noise Levels

Existing roadway noise levels were calculated for the roadway segments in the Project vicinity. This task was accomplished using the FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108) (see Attachment A) and traffic volumes from the Project's Traffic Study (Michael Baker International 2023). The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) used in the FHWA model have been modified to reflect average vehicle noise rates identified for California by Caltrans. The Caltrans data shows that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels. The average daily noise levels along the analyzed roadway segments are presented in Table 3-1.

Table 3-1. Existing (Baseline) Traffic Noise Levels

Roadway Segment	Surrounding Uses	CNEL at 100 feet from Centerline of Roadway
Horse Ranch Creek Road		
Between State Route 76 & Project Site	Vacant Land/ Future School	65.8
Between Project Site & Meadowood Street	Developing Residential	65.8
Between Meadowood Street & Andalusian Way	Developing Residential	65.2
North of Andalusian Way	Developing Residential	63.8
Shire Court		
East of Horse Ranch Creek Road	Developing Residential & Future School	52.0
Meadowood Street		
East of Horse Ranch Creek Road	Developing Residential	57.7

Source: Traffic noise levels were calculated by ECORP using the FHWA roadway noise prediction model in conjunction with the trip generation rate identified by Michael Baker International (2023). Refer to Attachment A for traffic noise modeling assumptions and results.

As shown, the existing traffic-generated noise level on Project-vicinity roadways currently ranges from 52.0 to 65.8 dBA CNEL. As previously described, CNEL is 24-hour average noise level with a 5 dBA "weighting" during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

4.0 REGULATORY FRAMEWORK

4.1 Federal

4.1.1 Occupational Safety and Health Act of 1970

OSHA regulates onsite noise levels and protects workers from occupational noise exposure. To protect hearing, worker noise exposure is limited to 90 decibels with A-weighting (dBA) over an eight-hour work shift (29 Code of Regulations 1910.95). Employers are required to develop a hearing conservation program when employees are exposed to noise levels exceeding 85 dBA. These programs include provision of hearing protection devices and testing employees for hearing loss on a periodic basis.

4.2 State

4.2.1 State of California General Plan Guidelines

The State of California regulates vehicular and freeway noise affecting classrooms, sets standards for sound transmission and occupational noise control, and identifies noise insulation standards and airport noise/land-use compatibility criteria. The State of California General Plan Guidelines (Office of Planning and Research [OPR] 2003), published by the Governor's OPR, also provides guidance for the acceptability of projects within specific CNEL/L_{dn} contours. The guidelines also present adjustment factors that may be used in order to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

4.2.2 State Office of Planning and Research Noise Element Guidelines

The State OPR *Noise Element Guidelines* include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The Noise Element Guidelines contain a Land Use Compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the CNEL.

4.2.3 California Department of Transportation

In 2020, the California Department of Transportation (Caltrans) published the Transportation and Construction Vibration Manual (Caltrans 2020b). The manual provides general guidance on vibration issues associated with the construction and operation of projects concerning human perception and structural damage. Table 2-2 above presents recommendations for levels of vibration that could result in damage to structures exposed to continuous vibration.

4.3 Local

4.3.1 County of San Diego General Plan Noises Element

The Noise Element of the General Plan provides policy direction for minimizing noise impacts on the community and establishing noise control measures for construction and operation of land use projects. By

identifying noise-sensitive land uses and establishing compatibility guidelines for land use and noises, noise considerations will influence the general distribution, location, and intensity of future land uses. The result is that effective land use planning and mitigation can alleviate the majority of noise problems.

The most basic planning strategy to minimize adverse impacts on new land uses due to noise is to avoid designating certain land uses at locations in the unincorporated County that would negatively affect noise-sensitive land uses. Uses such as schools, hospitals, childcare, senior care, congregate care, churches, and all types of residential use should be located outside of any area anticipated to exceed acceptable noise levels as defined by the Noise Compatibility Guidelines or should be protected from noise through sound attenuation measures such as site and architectural design and sound walls. The City has adopted guidelines as a basis for planning decisions and these guidelines are contained in Table N-1 of the County General Plan Noise Element. In a case where the noise levels identified at a proposed project site fall within levels considered normally acceptable, the project is considered compatible with the existing noise environment.

Table N-1 of the County Noise Element establishes an "acceptable" ambient noise environment for a school as experiencing no more than 65 dBA CNEL. Noise environments experiencing noise levels of 65.1 dBA CNEL through 75 dBA CNEL are considered "conditionally acceptable" for schools, meaning the construction of a school should only occur in such a location after the necessary noise-reduction measures are implemented to the extent that ambient noise levels are reduced to "acceptable" levels.

4.3.2 San Diego County Code

San Diego County's regulations with respect to noise are included in Chapter 4, *Noise Abatement and Control*, of the County Code. Section 36.404, *General Sound Level Limits*, limits stationary-source noise at any location on a noise-sensitive residential property to a maximum 50 dBA L_{eq} from 7:00 a.m. to 10:00 p.m. and 45 dBA L_{eq} from 10:00 p.m. to 7:00 a.m.

Additionally, Section 36.409, *Sound Level Limitations on Construction Equipment*, states that noise sources associated with construction are limited to an average sound level of 75 dBA for an eight-hour period, between 7:00 a.m. and 7:00 p.m., when measured at any occupied property where the noise is being received. Construction is prohibited between the nighttime hours of 7:00 p.m. and 7:00 a.m. as well as on Sundays and all major holidays.

4.3.3 County of San Diego Guidelines for Determination of Significance, Noise

The County of San Diego prepared the *Guidelines for Determination of Significance, Noise*, in 2009 to assist with the determination of significance for land use proposals. According to the *Guidelines for Determination of Significance, Noise*, a project will have a significant adverse environmental effect related to noise if a project-related component results in any of the following:

1. Project implementation would result in the exposure of any on- or off-site, existing or reasonably foreseeable future Noise Sensitive Land Use (NSLU) to exterior or interior noise (including noise generated from the project, together with noise from roads [existing and planned Circulation Element roadways], railroads, airports, heliports and all other noise sources) in excess of any of the following:

a. Exterior Locations:

- 60 CNEL; or
- An increase of 10 decibels over pre-existing noise.

b. Interior Locations:

- 45 CNEL except for the following cases:

  Rooms that are usually occupied only a part of the day (schools, libraries, or similar facilities), the interior one-hour average sound level due to noise outside should not exceed 50 dBA L_{eq}.

2. Project implementation would generate airborne noise which, together with noise from all sources, would be in excess of either of the following:

a. Non-Construction Noise: The limit specifies in San Diego County Code Section 36.404, *Sound Level Limits*, at or beyond the property line. Section 36.404, *General Sound Level Limits*, limits stationary-source noise at any location on a noise-sensitive residential property to a maximum 50 dBA L_{eq} from 7:00 a.m. to 10:00 p.m. and 45 dBA L_{eq} from 10:00 p.m. to 7:00 a.m.

b. Construction Noise: Noise generated by construction activities related to the project would exceed the standards listed in San Diego County Code Section 36.409, Sound Level Limitations on Construction Equipment. Except for emergency work, it shall be unlawful for any person to operate construction equipment or cause construction equipment to be operated, that exceeds an average sound level of 75 dB(A) L_{eq} for an eight-hour period, between 7:00 A.M. and 7:00 P.M., when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received.

5.0 IMPACT ASSESSMENT

5.1 Thresholds of Significance

The impact analysis provided below is based on the following California Environmental Quality Act Guidelines Appendix G thresholds of significance. The Project would result in a significant noise-related impact if it would result in the:

1) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

2) Generation of excessive groundborne vibration or groundborne noise levels.

3) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

For the purposes of this analysis, the County noise standards were used for evaluation of Project-related noise impacts for transportation and operational related noise.

5.2 Methodology

This analysis of the existing and future noise environments is based on empirical observations and noise prediction modeling. Predicted construction noise levels were calculated utilizing the FHWA's Roadway Construction Noise Model (2006). Groundborne vibration levels associated with construction-related activities for the Project have been evaluated utilizing typical groundborne vibration levels associated with construction equipment. Potential groundborne vibration impacts related to structural damage and human annoyance were evaluated, taking into account the distance from construction activities to nearby structures and typically applied criteria for structural damage and human annoyance. Transportation-source noise levels in the Project vicinity were calculated using the FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with trips generation rates provided by Michael Baker International (2023).

5.3 Impact Analysis

5.3.1 Would the Project Result in Short-Term Construction-Generated Noise in Excess of City Standards?

5.3.1.1 Onsite Construction Noise

Construction noise associated with the Proposed Project would be temporary and would vary depending on the specific nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., site preparation, excavation, paving). Noise generated by construction equipment, including earth movers, pile drivers, and portable generators, can reach high levels. Typical

operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could negatively affect sensitive land uses in the vicinity of the construction site.

As previously discussed, County Code Section 36.409, *Sound Level Limitations on Construction Equipment*, states that noise sources associated with construction are limited to an average sound level of 75 dBA for an eight-hour period, between 7:00 a.m. and 7:00 p.m., when measured at any occupied property where the noise is being received. Construction is prohibited between the nighttime hours of 7:00 p.m. and 7:00 a.m. as well as on Sundays and all major holidays.

To estimate the worst-case onsite construction noise levels that may occur at the nearest noise-sensitive receptors, Project construction equipment noise levels were calculated using the FHWA's Roadway Noise Construction Model and compared against the County standard of 75 dBA for an eight-hour period. It is acknowledged that the majority of construction equipment is not situated at any one location during construction activities, but rather spread throughout the Project Site and at various distances from sensitive receptors. Therefore, this analysis employs the FTA guidance for calculating construction noise, which recommends measuring construction noise produced by all construction equipment simultaneously from the center of the Project Site (FTA 2018), which in this case is approximately 450 feet from the large lot residence to the east of the northern half of the Site and the residential development under construction north of Shire Court. The anticipated short-term construction noise levels generated for the necessary equipment are presented in Table 5-1.

Table 5-1. Construction Average (dBA) Noise Levels at Nearest Receptors

Construction Phase	Estimated Exterior Construction Noise Level @ Closest Noise Sensitive Receptor (dBA L_{eq})	Construction Noise Standard (dBA L_{eq})	Exceeds Standards?
Site Preparation	68.5	*75*	**No**
Grading	69.1	*75*	**No**
Combined Building Construction, Paving, & Architectural Coating Activities	70.0	*75*	**No**

Source: Construction noise levels were calculated by ECORP Consulting using the FHWA Roadway Noise Construction Model (FHWA 2006). Refer to Attachment B for Model Data Outputs.

Notes: Construction equipment used during construction provided by the Project Proponent. Consistent with FTA recommendations for calculating construction noise, construction noise was measured from the center of the Project Site (FTA 2018), which is 450 feet from the nearest receptor.

L_{eq} = The equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

As shown in Table 5-1, construction activities would not exceed the County standard of 75 dBA. It is noted that construction noise was modeled on a worst-case basis. It is very unlikely that all pieces of construction equipment would be operating at the same time for the various phases of Project construction as well as at the point closest to the nearest noise-sensitive receptor.

5.3.1.2 Offsite Construction Worker Trips

Project construction would result in additional traffic on adjacent roadways over the period that construction occurs. According to the California Emissions Estimator Model (CalEEMod), which is used to predict the number of construction-related automotive trips, the maximum number of Project construction trips traveling to and from the Project Site during a single construction phase would not be expected to exceed 158 daily trips in total (20 construction worker trip and 138 haul truck trips). According to Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol (2013), a doubling of traffic on a roadway is required to result in an increase of 3 dB (outside of the laboratory, a 3-dBA change is considered a just-perceivable difference). The Project Site is accessible from Interstate 15 via State Route 76 and Horse Ranch Creek Road. According to the Traffic information prepared by Michael Baker International (2023), the segment of State Route 76 leading toward the Project Site currently accommodates approximately 15,100 average daily trips, and the segment of Horse Ranch Creek Road currently accommodates between approximately 5,000 and 8,000 average daily trips. Thus, Project construction would not result in a doubling of traffic, and therefore its contribution to existing traffic noise would not be perceptible. Additionally, it is noted that construction is temporary, and these trips would cease upon completion of the Project.

Construction of the Proposed Project would not result in a new or substantially more severe significant impact compared with the significance determination contained in the Specific Plan EIR.

5.3.2 Would the Project Result in a Substantial Permanent Increase in Ambient Noise Levels in Excess of City Standards During Operations?

As previously described, noise-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise-sensitive and may warrant unique measures for protection from intruding noise. The nearest noise-sensitive receptor to the Project Site is a large lot residence directly to the east of the northern half of the Site. Additionally, residential development is under construction north of Shire Court.

5.3.2.1 Project Noise/Land Use Compatibility

The County of San Diego uses the land use compatibility table presented in the General Plan Noise Element which provides the County with a tool to gauge the compatibility of new land users relative to existing noise levels. This table, presented as Table N-1 of the County General Plan Noise Element, identifies normally acceptable, conditionally acceptable, normally unacceptable and clearly unacceptable exterior noise levels for various land uses, including school land uses such as that proposed by the Project. In the case that the noise levels identified at the Proposed Project Site fall within levels presented in the General Plan, the Project is considered compatible with the existing noise environment. Table N-1 of the County Noise Element

establishes an "acceptable" ambient noise environment for a school as experiencing no more than 65 dBA CNEL. Noise environments experiencing noise levels of 65.1 dBA CNEL through 75 dBA CNEL are considered "conditionally acceptable" for schools, meaning the construction of a school should only occur in such a location after the necessary noise-reduction measures are implemented to the extent that ambient noise levels are reduced to "acceptable" levels.

The predominant source of noise affecting the Project Site includes traffic noise on Horse Ranch Creek Road, which traverses parallel to the site to the west. As identified in Table 3-2 above, the segment of Horse Ranch Creek Road traversing adjacent to the Project Site currently generates noise levels of 65.8 dBA CNEL at 100 feet from centerline. Therefore, portions of the proposed school site currently experience ambient noise levels of 65.8 dBA. The traffic noise currently generated on Horse Ranch Creek Road is influenced, among other factors, by vehicle speed. The maximum design speed on Horse Ranch Creek Road is 55 miles per hour. However, when the Citro School would be operating, the maximum allowed speed on Horse Ranch Creek Road would be 25 miles per hour. The slower vehicular speeds on Horse Ranch Creek Road during the hours of school operations would reduce the noise generated on this roadway.

Noise levels generated on Horse Creek Ranch Road under Project conditions have been calculated to account for increases of traffic as a result of the Project as well as the reduced speed limit during school hours (see Table 5-2 below). As shown, ambient noise experienced on the Project Site would be 62.7 dBA CNEL, which is below 65 dBA, and thereby be an "acceptable" ambient noise environment for a school.

5.3.2.2 Operational Traffic Noise

Future traffic noise levels throughout the Project vicinity for the Proposed Project were modeled based on the traffic volumes identified by Michael Baker International (2023) to determine the noise levels along Project vicinity roadways. Table 5-2 shows the calculated offsite roadway noise levels under existing traffic conditions compared to existing plus Project conditions. The calculated noise levels as a result of the Project at affected land uses are compared to the roadway noise standards for roadway noise levels contained in the County *Guidelines for Determination of Significance, Noise*.

Table 5-2. Existing Plus Project Conditions - Predicted Traffic Noise Levels					
Roadway Segment	**Surrounding Uses**	**CNEL at 100 feet from Centerline of Roadway**		**Noise Standard (dBA CNEL)**	**Exceed Standard?**
		Existing Conditions	**Existing + Project Conditions**		
Horse Ranch Creek Road					
Between State Route 76 & Project Site	Vacant Land/ Future School	65.8 dBA	62.7 dBA[1]	*>10*	**No**
Between Project Site & Meadowood Street	Developing Residential	65.8 dBA	62.4 dBA[1]	*>10*	**No**
Between Meadowood Street & Andalusian Way	Developing Residential	65.2 dBA	65.3 dBA	*>10*	**No**
North of Andalusian Way	Developing Residential	63.8 dBA	63.8 dBA	*>10*	**No**
Shire Court					
East of Horse Ranch Creek Road	Developing Residential & Future School	52.0 dBA	53.8 dBA	60 dBA	**No**
Meadowood Street					
East of Horse Ranch Creek Road	Developing Residential	57.7 dBA	56.7 dBA	60 dBA	**No**

Source: Traffic noise levels were calculated by ECORP using the FHWA roadway noise prediction model in conjunction with the trip generation rate identified by Michael Baker International (2023). Refer to Attachment A for traffic noise modeling assumptions and results.

Notes: While Citro School is in session, the maximum allowed speed on Horse Ranch Creek Road would be 25 miles per hour. Therefore, noise from traffic traversing Horse Ranch Creek Road between State Route 76 and the Project Site, and Horse Ranch Creek between the Project Site and Meadowood Street has been conservatively calculated to reflect an average speed of 40 miles per hour.

As shown in Table 5-2, no roadway segment would generate noise beyond the County's transportation noise standards.

Additionally, the County *Guidelines for Determination of Significance, Noise*, states that in the case of rooms that are usually occupied only a part of the day (schools, libraries, or similar facilities), the interior one-hour average sound level due to noise outside should not exceed 50 dBA. As previously described, the manner in which older buildings in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows (Caltrans 2002). The exterior-to-interior reduction of newer buildings is generally 30 dBA or more (Harris Miller, Miller & Hanson Inc. 2006). Since the predominate source of noise in the Project Area, traffic noise, is calculated to reach up to 62.7 dBA under the Existing Plus Project scenario, interior noise levels of less than 37.7 dBA would be expected within Project

classrooms and buildings (62.7 – 25 = 37.7 dBA), which is below the significance interior school room threshold of 50 dBA. Proposed Project traffic noise would not result in a new or substantially more severe significant impact compared with the significance determination contained in the Specific Plan EIR.

5.3.2.3 Operational Onsite Noise

The school component analyzed in the Meadowood Specific Plan EIR included the construction of an elementary school intended to accommodate 208 students. Under the Proposed Project however, a TK – 8th grade school would be designed to accommodate up to 650 students, though based on an ongoing demographics study the Bonsall Unified School District projects the school to have an enrollment of 450 to 500 TK-8 students. While the Proposed Project instigates the possibility of accommodating a higher number of students compared with the Specific Plan EIR, the Proposed Project would not be expected to result in substantial changes in the noise environment compared to that identified in the Specific Plan EIR. In more than 250 sound tests over two days, research identified an average noise level at urban schools reaching levels of 63.7 dBA, with peak events of 85 dBA, generated from activities, e.g., hallway talking, door slamming, student yelling (Zhang and Navejar 2015), despite the school enrollment numbers. Additionally, ECORP staff has conducted noise measurements at an existing elementary school and an existing 6 – 12 charter school in order to develop a sampling of potential noise levels associated with school activities, specifically student drop off/pick up activities and student lunch/recess activities. Table 5-3 identifies noise levels measured during these activities. These measurements were taken with a Larson Davis SoundExpert LxT precision sound level meter, which satisfies the ANSI for general environmental noise measurement instrumentation. Prior to the measurements, the SoundExpert LxT sound level meter was calibrated according to manufacturer specifications with a Larson Davis CAL200 Class I Calibrator.

Table 5-3. Representative School Activity Noise Levels

School Activity Type	dBA L_{eq}
Student Drop Off/Pick Up	64.6 dBA
Student Lunch/Recess	68.6 dBA

Source: Measurements taken by ECORP with a Larson Davis SoundExpert LxT precision sound level meter, which satisfies the American National Standards Institute for general environmental noise measurement instrumentation. Prior to the measurements, the SoundExpert LxT sound level meter was calibrated according to manufacturer specifications with a Larson Davis CAL200 Class I Calibrator. Student drop off/pick up was measured at an existing elementary school parking lot during a morning drop off event. Student lunch/recess was measured at a the edge of a 6-12 charter school during an afternoon recess.

As shown in Table 5-3, a student drop off/pick up event can be expected to generate noise levels of 64.6 dBA at the source. Additionally, student lunch/recess events can be expected to generate noise levels of 68.6 dBA at the source.

The proposed student drop off/pick up would be located on the eastern boundary of the Project Site, approximately 157 feet from the large lot residence directly to the east of the northern half of the Site. As previously described, sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dBA for each doubling of distance from a stationary

or point source (FHWA 2017), such as a student drop off/pick up area. Conservatively assuming no noise attenuation at 25 feet from the student drop off/pick up area, Project noise levels would attenuate to 58.6 dBA at 50 feet from the student drop off/pick up area. At 100 feet, noise levels would be reduced another 6 dBA to 52.6 dBA. Project noise would attenuate another 3.4 dBA over the remaining 57 feet to the residence, resulting in Project-generated noise levels of 46.6 dBA at this receptor, which is below the 50 dBA L_{eq} threshold established by County Code Section 36.404, *General Sound Level Limits*.

The proposed covered outdoor lunch area/paved recess area would be located in the approximate north-center of the Project Site, approximately 200 feet from the nearest residence, and would be buffered from the residential receptors to the north and east by school buildings. As previously described, a single row of detached buildings between the receptor and the noise source reduces the noise level by about 5 dBA (FHWA 2006). Conservatively assuming no noise attenuation at 25 feet from the lunch area/paved recess area, Project noise levels would attenuate to 62.6 dBA at 50 feet from the lunch area/paved recess area. At 100 feet, noise levels would be reduced another 6 dBA to 56.6 dBA, and at 200 feet noise from this source would be reduced to 50.6 dBA. Factoring in the buffer of school buildings between the lunch area/paved recess area and surrounding residences, Project-generated noise levels of 45.6 dBA at the nearest residences would be expected. This is below the 50 dBA L_{eq} threshold established by County Code Section 36.404, *General Sound Level Limits*.

Proposed Project-generated onsite noise would not result in a new or substantially more severe significant impact compared with the significance determination contained in the Specific Plan EIR.

5.3.3 Would the Project Expose Structures to Substantial Groundborne Vibration During Construction?

Excessive groundborne vibration impacts result from continuously occurring vibration levels. Increases in groundborne vibration levels attributable to the Project would be primarily associated with short-term construction-related activities. Construction on the Project Site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. Vibration decreases rapidly with distance, and it is acknowledged that construction activities would occur throughout the Project Site and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with construction equipment are summarized in Table 5-4.

Table 5-4. Representative Vibration Source Levels for Construction Equipment	
Equipment Type	**Peak Particle Velocity at 25 Feet (inches per second)**
Vibratory Roller	0.210
Pile Driver	0.170
Large Bulldozer	0.089
Hoe Ram	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozer/Tractor	0.003

Source: FTA 2018; Caltrans 2020b

San Diego County's regulation pertaining to vibration is included in Policy N-3.1 of the General Plan Noise Element. Policy N-3.1 recommends the use of the FTA guidelines, where appropriate, to limit the extent of exposure that sensitive uses may have to groundborne vibration from construction equipment. As such, this analysis will use a conservative threshold of 0.2 inches per second peak particle velocity (PPV), which is the vibration level that is considered by the FTA to be acceptable for "non-engineered timber and masonry buildings" (FTA 2018). It is acknowledged that construction activities would occur throughout the Project Site and would not be concentrated at the point closest to the nearest structure. Consistent with FTA recommendations for calculating construction vibration, construction vibration was measured from the center of the Project Site (FTA 2018). The nearest structures of concern to the construction site is located approximately 450 feet from the center of the Project Site.

Based on the representative vibration levels presented for various construction equipment types in Table 5-4 and the construction vibration assessment methodology published by the FTA (2018), it is possible to estimate the potential Project construction vibration levels. The FTA provides the following equation:

$$[PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}]$$

Table 5-5 presents the expected Project related vibration levels at a distance of 450 feet.

Table 5-5. Construction Vibration Levels at 200 Feet

Receiver PPV Levels (in/sec)[1]						Peak Vibration	Threshold	Exceed Threshold?
Vibratory Roller	Pile Driver	Large Bulldozer, Caisson Drilling, & Hoe Ram	Loaded Trucks	Jack-hammer	Small Bulldozer			
0.002	0.002	0.001	0.001	0.000	0.000	**0.002**	*0.2*	**No**

Notes: [1]Based on the Vibration Source Levels of Construction Equipment included in Table 5-4 (FTA 2018). Distance to the nearest structure of concern is approximately 450 feet measured from Project Site center.

As shown in Table 5-5, vibration as a result of onsite construction activities on the Project Site would not exceed 0.2 PPV at the nearest structure. Thus, onsite Project construction would not exceed the threshold.

Construction of the Proposed Project would not result in a new or substantially more severe significant impact compared with the significance determination contained in the Specific Plan EIR.

5.3.4 Would the Project Expose Structures to Substantial Groundborne Vibration During Operations?

Project operations would not include the use of any large-scale stationary equipment that would result in excessive vibration levels. Therefore, the Project would not result groundborne vibration impacts during operations. Proposed Project operations would not result in a new or substantially more severe significant impact compared with the significance determination contained in the Specific Plan EIR.

5.3.5 Would the Project Expose People Residing or Working in the Project area to Excessive Airport Noise?

The Project Site is located approximately 5.88 miles east of the Fallbrook Community Airpark Airport. The Project Site is not located within an airport land use plan and is not within two miles of an airport. Implementation of the Proposed Project would not affect airport operations, nor result in increased exposure of those on the Project Site to aircraft noise.

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Attachment A - Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) Outputs – Traffic Noise

Attachment B – Federal Highway Administration Roadway Construction Noise Outputs

ATTACHMENT A

Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) Outputs – Traffic Noise

TRAFFIC NOISE LEVELS

Project Number: 2022-101
Project Name: Bonsall Unified School District Citro School Project

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
Analysis Scenario(s): Existing
Source of Traffic Volumes: Michael Baker International 2023
Community Noise Descriptor: L_{dn}: _____ CNEL: X

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Traffic Noise Levels

Analysis Condition Roadway Segment	Land Use	Lanes	Median Width	Peak Hour Volume	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor	Alpha Factor	Barrier Attn. dB(A)	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	Peak Hou dB(A) L_{eq}	24-Hour dB(A) CNEL
Horse Ranch Creek Road													
Between SR 76 & Project Site	School	2	0	889	8,000	55	100	0	0	1.8%	0.7%	67.0	65.8
Between Project Site & Meadowood St	Residential	2	0	889	8,000	55	100	0	0	1.8%	0.7%	67.0	65.8
Between Meadowood St & Andalusian	Residential	2	0	778	7,000	55	100	0	0	1.8%	0.7%	66.4	65.2
North of Andalusian Way	Residential	2	0	556	5,000	55	100	0	0	1.8%	0.7%	65.0	63.8
Shire Court													
East of Horse Ranch Creek Road	Residential	2	0	89	800	35	100	0	0	1.8%	0.7%	52.0	50.8
Meadowood Street													
East of Horse Ranch Creek Road	Residential	2	0	178	1,600	45	100	0	0	1.8%	0.7%	57.7	56.5

TRAFFIC NOISE LEVELS

Project Number: 2022-101
Project Name: Bonsall Unified School District Citro School Project

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
Analysis Scenario(s): Existing Plus Project
Source of Traffic Volumes: Michael Baker International 2023
Community Noise Descriptor: L_{dn}: _____ CNEL: X

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Traffic Noise Levels

Analysis Condition Roadway Segment	Land Use	Lanes	Median Width	Peak Hour Volume	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor	Alpha Factor	Barrier Attn. dB(A)	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	Peak Hou dB(A) L_{eq}	24-Hour dB(A) CNEL
Horse Ranch Creek Road													
Between SR 76 & Project Site	School	2	0	1,004	9,040	40	100	0	0	1.8%	0.7%	64.0	62.7
Between Project Site & Meadowood St	Residential	2	0	926	8,330	40	100	0	0	1.8%	0.7%	63.6	62.4
Between Meadowood St & Andalusian	Residential	2	0	802	7,220	55	100	0	0	1.8%	0.7%	66.6	65.3
North of Andalusian Way	Residential	2	0	563	5,070	55	100	0	0	1.8%	0.7%	65.0	63.8
Shire Court													
East of Horse Ranch Creek Road	Residential	2	0	169	1,520	35	100	0	0	1.8%	0.7%	54.8	53.6
Meadowood Street													
East of Horse Ranch Creek Road	Residential	2	0	186	1,670	45	100	0	0	1.8%	0.7%	57.9	56.7

ATTACHMENT B

Federal Highway Administration Roadway Construction Noise Outputs

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/7/2023
Case Description: Site Preparation

Description	**Affected Land Use**
Site Preparation	Residential

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**
Dozer	No	40		81.7	450
Dozer	No	40		81.7	450
Dozer	No	40		81.7	450
Tractor	No	40	84		450
Tractor	No	40	84		450
Tractor	No	40	84		450
Tractor	No	40	84		450

Calculated (dBA)

Equipment		***Lmax**	**Leq**
Dozer		62.6	58.6
Dozer		62.6	58.6
Dozer		62.6	58.6
Tractor		64.9	60.9
Tractor		64.9	60.9
Tractor		64.9	60.9
Tractor		64.9	60.9
	Total	**64.9**	**68.5**

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/7/2023
Case Description: Grading

Description	**Affected Land Use**
Grading	Residential

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**
Excavator	No	40		80.7	450
Excavator	No	40		80.7	450
Grader	No	40	85		450
Dozer	No	40		81.7	450
Scraper	No	40		83.6	450
Scraper	No	40		83.6	450
Tractor	No	40	84		450
Tractor	No	40	84		450

Calculated (dBA)

Equipment	***Lmax**	**Leq**
Excavator	61.6	57.6
Excavator	61.6	57.6
Grader	65.9	61.9
Dozer	62.6	58.6
Scraper	64.5	60.5
Scraper	64.5	60.5
Tractor	64.9	60.9

Tractor		64.9	60.9
	Total	**65.9**	**69.1**

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/7/2023
Case Description: Building Construction,
Paving & Architectural Coating

Description	**Affected Land Use**
Building Construction, Paving & Architectural Coating	Residential

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**
Crane	No	16		80.6	450
Gradall	No	40		83.4	450
Gradall	No	40		83.4	450
Gradall	No	40		83.4	450
Generator	No	50		80.6	450
Tractor	No	40	84		450
Tractor	No	40	84		450
Tractor	No	40	84		450
Welder / Torch	No	40		74	450
Paver	No	50		77.2	450
Paver	No	50		77.2	450
Paver	No	50		77.2	450
Paver	No	50		77.2	450
Roller	No	20		80	450
Roller	No	20		80	450
Compressor (air)	No	40		77.7	450

Calculated (dBA)

Equipment	*Lmax	Leq
Crane	61.5	53.5
Gradall	64.3	60.3
Gradall	64.3	60.3
Gradall	64.3	60.3
Generator	61.5	58.5
Tractor	64.9	60.9
Tractor	64.9	60.9
Tractor	64.9	60.9
Welder / Torch	54.9	50.9
Paver	58.1	55.1
Paver	58.1	55.1
Paver	58.1	55.1
Paver	58.1	55.1
Roller	60.9	53.9
Roller	60.9	53.9
Compressor (air)	58.6	54.6
Total	**64.9**	**70**

*Calculated Lmax is the Loudest value.

Michael Baker
INTERNATIONAL

Appendix I: Traffic Impact Analysis

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TRAFFIC IMPACT ANALYSIS

FOR THE PROPOSED

BONSALL EAST K-8 SCHOOL

EAST SIDE OF HORSE RANCH CREEK ROAD SOUTH OF SHIRE COURT

SAN DIEGO COUNTY

Prepared for

BONSALL UNIFIED SCHOOL DISTRICT
&
MICHAEL BAKER INTERNATIONAL

Prepared by

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February 2023

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I.
INTRODUCTION AND STUDY METHODOLOGY

This traffic analysis was conducted to determine the impacts of a new K-8 school proposed by the Bonsall Unified School District on the east side of Horse Ranch Creek Road south of Shire Court in the Fallbrook area of unincorporated San Diego County. The project site is located approximately one-half mile east of Interstate 15 (the Escondido Freeway) and one-half mile north of State Route 76. Figure 1 is a map showing the project location, and the site plan for the proposed school is provided in the Appendix. The school would have a capacity of 650 students.

As currently proposed, access to the school would be provided by an ingress-only driveway located at the east end of Shire Court east of Horse Ranch Creek Road. Shire Court has a cul-de-sac at the east end of a short block that currently provides access to the residential neighborhood to the north. The school access driveway would be on the south side of the Shire Court cul-de-sac. Egress from the school site would be provided by a new driveway on the east side of Horse Ranch Creek Road at the south end of the school campus. This driveway would not generally be used for inbound traffic flow, but that direction could be available for bus, emergency vehicle, and maintenance vehicle access. Left turns at the Horse Ranch Creek Road driveway would not be permissible because of a raised median on Horse Ranch Creek Road.

The objective of the traffic analysis is to quantify the impacts of the proposed school on the roadways and intersections in the vicinity of the school site. The methodology for the traffic study, in general, was to l) establish the existing baseline traffic conditions on the roadways that provide access to the school site, 2) forecast the future baseline traffic conditions for the first year of operation for the proposed school (year 2028), 3) estimate the levels of traffic that would be generated by the proposed school, 4) add the traffic that would be generated by the school to the existing and future baseline traffic volumes to establish the traffic conditions with the proposed project, 5) conduct a comparative level of service analysis for the scenarios with and without the proposed school, and 6) evaluate vehicle, pedestrian, and bicycle safety issues, vehicle miles traveled (VMT), and emergency access.

The traffic analysis is based on morning peak hour traffic volumes on the roadways and intersections in the project area because traffic that would be generated by the school in the morning generally coincides with the morning commuter peak period. The afternoon peak period was not evaluated because the afternoon peak hour of traffic activity for a school does not typically coincide with the commuter peak hour on the roadway network. The afternoon commuter peak period generally occurs from approximately 4:00 to 6:00 p.m., while a K-8 school generally experiences its peak traffic activity between 2:00 and 3:00 p.m. when the background traffic volumes are relatively light (as compared to the peak hours).

The traffic analysis addresses the impacts at nine intersections in the vicinity of the school site plus the new driveway intersection for the “with project” scenarios. The study area intersections and

the type of traffic control at each intersection are listed below in Table 1. The intersections are all in the jurisdiction of San Diego County except for the two intersections on State Route 76.

TABLE 1
STUDY AREA INTERSECTIONS

Intersection	Traffic Control
Horse Ranch Creek Road at Friesen Way	Stop Signs on Friesen Way
Horse Ranch Creek Road at Gold Palomino Way	Stop Signs on Gold Palomino Way
Horse Ranch Creek Road at Andalusian Way	Four-Way Stop Signs
Horse Ranch Creek Road at Hackney Way	Stop Sign on Hackney Way
Horse Ranch Creek Road at Meadowood Street	Stop Sign on Meadowood Street
Horse Ranch Creek Road at Shire Court	Three-Way Stop Signs
Horse Ranch Creek Road at School Driveway	N/A – Existing Stop Sign on Driveway – Future
Horse Ranch Creek Road at Pankey Place	Three-Way Stop Signs
State Route 76 at Horse Ranch Creek Road	Traffic Signal
State Route 76 at Pankey Road	Stop Signs on Pankey Road – Existing Traffic Signal - Future

The traffic impact analysis is based on an evaluation of the levels of service at the affected study area intersections. Level of service (LOS) is an industry standard by which the operating conditions of a roadway segment or an intersection are measured. LOS is defined on a scale of A through F with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. LOS A is characterized as having free flowing traffic conditions with no restrictions on maneuvering or operating speeds and little or no delays, where traffic volumes are low and travel speeds are high. LOS F is characterized as having forced flow with many stoppages, extensive delays, and low operating speeds.

According to the performance criteria cited in the "County of San Diego Transportation Study Guidelines," LOS A through D represents acceptable conditions, while LOS E and F represent congested, over-capacity conditions. The levels of service at the signalized and unsignalized intersections in the study area were determined by using the Highway Capacity Manual methodology and the Highway Capacity Software as the calculation tool.

The levels of service for the intersections in the vicinity of the school were analyzed for the following scenarios:

- Existing conditions (2022)
- Existing conditions plus the proposed school project

- Future baseline conditions without the proposed school for the target year of 2028
- Future conditions (2028) with the proposed school project.

The year 2028 was used for the future target year as that is anticipated to be the first year of operation for the proposed school. A "Scoping Agreement for Transportation Studies" was prepared and was signed by a Transportation Specialist at the County of San Diego. This agreement outlined the approved assumptions and methodology for the traffic impact analysis.

II.
BASELINE TRAFFIC CONDITIONS

The roadway network in the project vicinity, the existing and future baseline traffic volumes, and the levels of service at the affected study area intersections are described below.

Roadway Network

The roadways that provide access to the project site include Horse Ranch Creek Road, Shire Court, Friesen Way, Gold Palomino Way, Andalusian Way, Hackney Way, Meadowood Street, Pankey Place, State Route 76, and Pankey Road. The following paragraphs provide a brief description of the characteristics of these roadways. A figure showing the study area roadway network, the types of traffic control at each intersection, and the lane configuration at each intersection is provided as Figure 2.

Horse Ranch Creek Road is a four lane north-south roadway that abuts the west side of the school site. It was recently widened to four lanes with a raised center median from State Route 76 to Andalusian Way and it is two lanes wide north of Andalusian Way. It has a sidewalk on the east side of the road from State Route 76 to Andalusian Way (with a short missing segment near State Route 76) and a sidewalk on the west side of the road from State Route 76 to about the midpoint of the school site. There is also an unpaved trail on the west side of Horse Ranch Creek Road for the entire length of the road within the study area from State Route 76 to Friesian Way, where Palomar College is located. Bike lanes are on both sides of Horse Ranch Creek Road from State Route 76 to Gold Palomino Way (with an occasional gap in the bike lane). The speed limit on Horse Ranch Creek Road is 35 miles per hour (mph).

Shire Court is a short two lane east-west street that intersects with Horse Ranch Creek Road and abuts the north side of the school site. It has a sidewalk on the north side of the street and a cul-de-sac at the east end of the street.

Friesen Way, Gold Palomino Way, Andalusian Way, Hackney Way, and Meadowood Street are all two lane east-west streets that intersect with Horse Ranch Creek Road north of the school site and provide access to partially developed residential neighborhoods. They have sidewalks on one or both sides of the street and the speed limit is 25 mph on all of the streets except Gold Palomino Way, which has a 30 mph speed limit.

Pankey Place is a two lane east-west street that intersects with Horse Ranch Creek Road south of the school site. It provides access to a partially developed residential neighborhood and the speed limit is 25 mph. It has sidewalks on both sides of the street.

State Route 76 is a four lane east-west highway located approximately one-half mile south of the school site. There are no sidewalks or bike lanes on this regional highway and the speed limit is 55 mph.

Pankey Road is a two lane north-south roadway that intersects with State Route 76 approximately one-quarter mile west of the Horse Ranch Creek Road/State Route 76 intersection. It extends south and provides access to a major residential area via various roadways. There are no sidewalks or bike lanes on Pankey Road and the speed limit is not posted. There are, however, sidewalks and bike lanes on many of the streets in the residential area to the south that is accessed via Pankey Road.

Existing Traffic Volumes

Manual traffic counts were taken at the study area intersections on Thursday, October 6, 2022, during the morning peak period. Figure 3 shows the existing peak hour traffic volumes and turning movement counts at each intersection. The traffic counts were taken from 7:00 to 9:00 a.m. and the highest one-hour period of traffic flow was determined for each intersection. The morning peak hour generally occurs between 7:00 and 8:00 a.m. The afternoon peak period was not addressed in the traffic impact analysis because the peak hour of traffic activity for a K-8 school typically occurs from 2:00 to 3:00 p.m., which does not coincide with the late afternoon commuter peak period, which occurs generally from 4:00 to 6:00 p.m.

Existing Intersection Levels of Service

To quantify the existing baseline traffic conditions, the nine existing study area intersections were analyzed to determine their operating conditions during the morning peak hour. The operating conditions are identified based on the average vehicle delays and levels of service (LOS) that were calculated for each intersection.

For the signalized and all-way stop intersections, the LOS values were determined by calculating the average vehicle delay values and the associated levels of service for the entire intersection. For the intersections with stop signs on the side streets, the LOS values were determined by calculating the average vehicle delay values and the associated levels of service for the worst-case movement on the side street. The average delay values (seconds per vehicle) were determined by using the Highway Capacity Software. The relationship between delay values and levels of service for signalized and unsignalized intersections is shown in Table 2.

TABLE 2 RELATIONSHIP BETWEEN DELAY VALUES & LEVELS OF SERVICE		
Level of Service	**Delay Value (seconds) Signalized Intersections**	**Delay Value (seconds) Unsignalized Intersections**
A	0.0 to 10.0	0.0 to 10.0
B	> 10.0 to 20.0	> 10.0 to 15.0
C	> 20.0 to 35.0	> 15.0 to 25.0
D	> 35.0 to 55.0	> 25.0 to 35.0
E	> 55.0 to 80.0	> 35.0 to 50.0
F	> 80.0	> 50.0

Based on the peak hour traffic volumes, the turning movement volumes, and the number of lanes at each intersection, the levels of service have been determined for the study area intersections, as summarized in Table 3. These values represent the existing 2022 traffic conditions without the project.

TABLE 3 EXISTING (2022) INTERSECTION LEVELS OF SERVICE	
Intersection	**Delay Value & Level of Service AM Peak Hour**
SIGNALIZED INTERSECTION	
Horse Ranch Creek Rd at State Route 76	19.8 – B
UNSIGNALIZED INTERSECTIONS	
Horse Ranch Creek Rd at Friesian Way	11.1 – B
Horse Ranch Creek Rd at Gold Palomino Way	11.5 – B
Horse Ranch Creek Rd at Andalusian Way	10.0 – B
Horse Ranch Creek Rd at Hackney Way	8.8 – A
Horse Ranch Creek Rd at Meadowood Street	10.5 – B
Horse Ranch Creek Rd at Shire Court	9.5 – A
Horse Ranch Creek Rd at Pankey Place	9.2 – A
State Route 76 at Pankey Road	25.8 - D

As shown in Table 3, the study area intersections all currently operate at an acceptable level of service (LOS A through D) during the morning peak hour as three of the intersections operate at LOS A, five intersections operate at LOS B, and one intersection operates at LOS D.

Future Baseline Traffic Conditions

The future (year 2028) baseline traffic conditions without the project were estimated by considering the effects of general ambient regional growth and the cumulative increase in traffic volumes that would be generated by the ongoing development in the project area. The target year for the future baseline analysis is year 2028, as that is the first year that the school is anticipated to be operational.

To develop the forecasts for the future baseline traffic volumes, data from previously prepared traffic reports were used as those studies developed detailed projections of cumulative traffic volumes that would be generated by numerous development projects in the vicinity of the proposed school. The development projects that were used to quantify the future traffic volumes include the Campus Park West Specific Plan, the Campus Park Specific Plan (with amended uses per the Passerelle development), the Palomar College North Education Center Specific Plan, and the Meadowood Specific Plan. Cumulative traffic forecasts for the development of these projects as well as other proposed development projects in the area were documented in the traffic impact analysis for the Campus Park West Project (Linscott, Law & Greenspan, 2014). The cumulative traffic projections in that analysis included the impacts of the other specific plan projects as well as individual development projects in the project vicinity.

The projected future baseline traffic volumes without the proposed school for the target year of 2028 are shown on Figure 4.

Based on the projected peak hour traffic volumes and turning movement counts, the future baseline delay values and levels of service were calculated for each study area intersection, as summarized in Table 4 for the target year of 2028. Table 4 indicates that all of the study area intersections are projected to operate at acceptable levels of service during the morning peak hour as one of the intersections would operate at LOS A, four of the intersections would operate at LOS B, and four of the intersections would operate at LOS C.

TABLE 4
FUTURE (2028) BASELINE INTERSECTION LEVELS OF SERVICE WITHOUT PROJECT

Intersection	**Delay Value & Level of Service AM Peak Hour**
SIGNALIZED INTERSECTIONS (ICU)	
Horse Ranch Creek Rd at State Route 76	21.8 – C
State Route 76 at Pankey Road	24.4 – C
UNSIGNALIZED INTERSECTIONS	
Horse Ranch Creek Rd at Friesian Way	19.1 – C

Horse Ranch Creek Rd at Gold Palomino Way	17.4 – C
Horse Ranch Creek Rd at Andalusian Way	11.0 – B
Horse Ranch Creek Rd at Hackney Way	9.7 – A
Horse Ranch Creek Rd at Meadowood Street	12.8 – B
Horse Ranch Creek Rd at Shire Court	12.1 – B
Horse Ranch Creek Rd at Pankey Place	12.9 – B

It should be noted that the intersection of State Route 76 and Pankey Road is designated as a signalized intersection in Table 4 for the year 2028 scenario although it is currently an unsignalized intersection. This change in traffic control was made for this intersection because the traffic study for the Campus Park West Specific Plan indicates that this intersection would be signalized and the roadway approaches would be widened in conjunction with the development of the Specific Plan as Pankey Road north of State Route 76 would be a major access route to the Specific Plan area.

III.
TRAFFIC IMPACT ANALYSIS

The following sections summarize the analysis of the school's impacts on study area traffic conditions. First is a discussion of project generated traffic volumes. This is followed by an analysis of the impacts of the proposed school on traffic volumes and intersection levels of service in the vicinity of the school site. Then the impacts associated with bicycle and pedestrian safety, vehicle miles traveled (VMT), and emergency access are presented.

Project Generated Traffic

The volumes of traffic expected to be generated by the proposed school were determined in order to estimate the impacts of the project on the study area roadways and intersections. Table 5 shows the estimated volumes of project generated traffic for an average day and for the morning peak hour. The trip generation rates are from the Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021). Although the trip generation rates and traffic volumes shown in Table 5 for the school are based on the number of students, the data represent the total number of vehicle trips generated by the school, including staff/faculty vehicles, drop-off/pick-up activities, visitors, and deliveries.

TABLE 5
PROJECT GENERATED TRAFFIC

Land Use	AM Peak Hour			Daily Traffic
	Total	Inbound	Outbound	
TRIP GENERATION RATES (vehicle trips per student)				
Elementary School	0.74	54%	46%	2.27
Middle School	0.67	54%	46%	2.10
GENERATED TRAFFIC VOLUMES				
Elementary School (430 students)	318	172	146	976
Middle School (220 students)	148	80	68	462
Total	466	252	214	1,438

The afternoon peak hour is not address in this traffic analysis because the afternoon peak hour for the school, which generally occurs from 2:00 to 3:00 PM, does not coincide with the afternoon commuter peak period, which occurs between 4:00 and 6:00 PM. This methodology was approved in the "Scoping Agreement for Transportation Studies" that was signed by a Transportation Specialist at the County of San Diego.

Table 5 indicates that the proposed project would generate an estimated 466 vehicle trips during the morning peak hour (252 inbound and 214 outbound) and an estimated 1,438 vehicle trips per day.

It should be noted that the traffic volumes shown in Tables 5 do not necessarily introduce new traffic to the overall roadway network but instead represent the traffic that would be re-directed to

this school site from other existing schools, because the number of students attending school in the district is a function of the school-age population and the demand for educational facilities. Most of the school-related traffic would be traveling on the roadway network regardless of the status of the proposed project. It has been assumed for the traffic analysis, however, that the additional site-generated traffic would be new traffic on the roadway network.

Projected Traffic Volumes

To quantify the increase in traffic volumes at each intersection resulting from the proposed school, the project generated traffic was geographically distributed onto the roadway network using the directional percentages shown on Figure 5. The distribution assumptions are based on the layout of the roadway network, the existing traffic patterns, and the anticipated geographical distribution of the students who would attend the school.

Using the generated traffic volumes shown in Table 5 and the geographical distribution assumptions shown on Figure 5, the volumes of project traffic on each access roadway and at each study area intersection were determined for the traffic impact analysis. The volumes of project generated traffic at each study area intersection are shown on Figure 5.

The traffic impact analysis considers two scenarios. One is the project's impacts on existing conditions and the other is the project's impacts on the projected year 2028 conditions. To quantify the impacts on existing conditions, the project generated traffic volumes shown on Figure 5 were added to the existing traffic volumes. The resulting "existing plus project" traffic volumes are shown on Figure 6.

The total volumes of traffic projected for the year 2028 scenario were determined by adding the project generated traffic to the future baseline traffic volumes. These projected traffic volumes are shown on Figure 7.

Significance Criteria

The "County of San Diego Transportation Study Guidelines" indicates that the level of service standard for roadways and intersections is LOS D. Based on this threshold of significance, the guidelines state an intersection would be significantly impacted and mitigation improvements would be required if a project would trigger any of the following.

Signalized Intersections

If the project would:

- Cause an intersection that operates at an acceptable LOS A through D without the project to degrade to an LOS E or F.
- Cause an intersection that operates at LOS E or F without the project to have an increased average delay of 5.0 or more seconds per vehicle.

Unsignalized Intersections – Side Street Stop Signs

If the project would:

- Cause an increase in the average intersection delay that would result in LOS E or F during the peak hour at a location that operates at LOS A through D without the project.

- Add 5 or more seconds of overall intersection delay AND add 10 or more trips to the worst-case movement OR add 50 or more trips to the overall intersection if the worst-case movement is operating at LOS E or F without the project.

Unsignalized Intersections – All-Way Stop Signs

If the project would:

- Cause an increase in the average intersection delay that would result in LOS E or F during the peak hour at a location that operates at LOS A through D without the project.

- Add 5 or more seconds of delay to an intersection that operates at LOS E or F without the project during the peak hour.

The impacts would not be significant at intersections that are projected to operate at LOS A through D. The Caltrans guidelines also indicate that an acceptable level of service on a State highway is LOS D or better.

With regard to the CEQA thresholds of significance, Appendix G of the CEQA Guidelines state that a project would normally have a significant effect on the environment if the project could:

T-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities,

T-2 Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b), which addresses vehicle miles traveled (VMT),

T-3 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), or

T-4 Result in inadequate emergency access.

Intersection Impact Analysis

The impact analysis for the nine existing study area intersections and the new intersection of Horse Ranch Creek Road at the school driveway was conducted by comparing the delay values and levels of service (LOS) for the "without project" and "with project" scenarios. For the existing conditions scenario, the analysis compares the existing conditions to the conditions with the proposed school. Similarly, for the year 2028 scenario, the analysis compares the year 2028 baseline conditions without the school to the year 2028 scenario with the proposed school. The year 2028 was used as the target year for future conditions as that is anticipated to be the first year that the proposed school would be completed and operational.

The comparative levels of service at the study area intersections for the existing conditions baseline scenario are summarized in Table 6. The table shows the before and after delay values and levels of service that would occur at each study area intersection. Also shown are the increases in the delay values that would occur as a result of the proposed school. The last column in Table 6 indicates if the intersections would be significantly impacted by the proposed school.

The intersection of Horse Ranch Creek Road and State Route 76, for example, operates with a delay value of 19.8 seconds and LOS B for existing conditions and would operate with a delay value of 27.2 seconds and LOS C for the existing plus project scenario, which represents an increase in average delay of 7.4 seconds per vehicle. This impact would be less than significant according to the criteria outlined above because the intersection would continue to operate at an acceptable LOS.

TABLE 6
PROJECT IMPACT ON INTERSECTION LEVELS OF SERVICE
EXISTING CONDITIONS AS BASELINE

Intersection	Delay Value & LOS		Increase In Delay	Signif-icant Impact
	Existing Conditions	Existing Plus Project		
SIGNALIZED INTERSECTION				
Horse Ranch Creek Rd at State Route 76	19.8 – B	27.2 – C	7.4	No
INTERSECTIONS WITH STOP SIGNS				
Horse Ranch Creek Rd at Friesian Way	11.1 – B	11.8 – B	0.7	No
Horse Ranch Creek Rd at Gold Palomino Way	11.5 – B	12.7 – B	1.2	No
Horse Ranch Creek Rd at Andalusian Way	10.0 – B	11.0 – B	1.0	No
Horse Ranch Creek Rd at Hackney Way	8.8 – A	9.0 – A	0.2	No
Horse Ranch Creek Rd at Meadowood Street	10.5 – B	11.3 – B	0.8	No
Horse Ranch Creek Rd at Shire Court	9.5 – A	12.4 – B	2.9	No
Horse Ranch Creek Rd at School Driveway	N/A	11.4 – B	11.4	No
Horse Ranch Creek Rd at Pankey Place	9.2 – A	11.1 – B	1.9	No
State Route 76 at Pankey Road	25.8 – D	29.1 – D	3.3	No

Table 6 indicates that none of the study area intersections would be significantly impacted by the additional traffic that would be generated by the proposed school for the existing conditions baseline scenario because all of the intersections would continue to operate at an acceptable LOS A through D.

The before-and-after delay values and levels of service at each of the study area intersections are summarized in Table 7 for the year 2028 baseline scenario. The table shows the projected 2028 traffic conditions without the project, the year 2028 traffic conditions with the project, and the

change in the delay values and LOS associated with the project. The last column in Table 7 indicates if the intersection would be significantly impacted by the school traffic.

TABLE 7
PROJECT IMPACT ON INTERSECTION LEVELS OF SERVICE
YEAR 2028 AS BASELINE

Intersection	Delay Value & LOS		Increase In Delay	Signif-icant Impact
	2028 Without Project	2028 With Project		
SIGNALIZED INTERSECTIONS				
Horse Ranch Creek Rd at State Route 76	21.8 – C	33.8 – C	12.0	No
State Route 76 at Pankey Road	24.4 – C	25.0 – C	0.6	No
INTERSECTIONS WITH STOP SIGNS				
Horse Ranch Creek Rd at Friesian Way	19.1 – C	22.4 – C	3.3	No
Horse Ranch Creek Rd at Gold Palomino Way	17.4 – C	21.3 – C	3.9	No
Horse Ranch Creek Rd at Andalusian Way	11.0 – B	12.3 – B	1.3	No
Horse Ranch Creek Rd at Hackney Way	9.7 – A	10.0 – A	0.3	No
Horse Ranch Creek Rd at Meadowood Street	12.8 – B	14.1 – B	1.3	No
Horse Ranch Creek Rd at Shire Court	12.1 – B	24.9 – C	12.8	No
Horse Ranch Creek Rd at School Driveway	N/A	13.8 – B	13.8	No
Horse Ranch Creek Rd at Pankey Place	12.9 – B	19.1 – C	6.2	No

Table 7 indicates that none of the study area intersections would be significantly impacted by the additional traffic that would be generated by the proposed school for the year 2028 baseline scenario because all of the intersections would continue to operate at an acceptable LOS A through D.

It should be noted that the intersection of State Route 76 and Pankey Road is designated as a signalized intersection in Table 7 for the year 2028 scenario although it is currently an unsignalized intersection. This change in traffic control was made for this intersection because the traffic study for the Campus Park West Specific Plan indicates that this intersection would be signalized and the roadway approaches would be widened in conjunction with the development of the Specific Plan as Pankey Road north of State Route 76 would be a major access route to the Specific Plan area.

Tables 6 and 7 indicate that the proposed school would not have a significant impact at any of the study area intersections based on the significance criteria presented previously because the intersections would all continue to operate at an acceptable LOS A through D. As there would be no significant impacts, no capacity-related mitigation measures would be required.

Non-Motorized Transportation and Transit

The proposed project would generate an increased demand for non-motorized travel as some students would travel to and from the school as pedestrians or on bicycles. The roadways in the immediate vicinity of the school site that would be used as pedestrian and bicycle access routes would be Horse Ranch Creek Road and Shire Court.

Horse Ranch Creek Road has a sidewalk on the east side of the road that extends from State Route 76 to Andalusian Way (with a short missing segment near State Route 76) and a sidewalk on the west side of the road from State Route 76 to about the midpoint of the school site. There is also an unpaved trail on the west side of Horse Ranch Creek Road for the entire length of the road within the study area from State Route 76 to Friesian Way. Pedestrians could walk to and from the school on the sidewalks and/or the unpaved trail on both sides of Horse Ranch Creek Road.

Shire Court has a sidewalk on the north side of the street, but there is no sidewalk on the south side of the street. As the primary pedestrian entrance for the school would be on the south side of Shire Court, a sidewalk should be constructed along the south side of Shire Court from Horse Ranch Creek Road to the cul-de-sac on the east end of Shire Court.

The intersection of Horse Ranch Creek Road and Shire Court has stop signs on all three approaches to the intersection, but there are no painted pedestrian crossings at the intersection. It is recommended that yellow school crosswalks be painted on the south side of the intersection across Horse Ranch Creek Road and on the east side of the intersection across Shire Court.

Bike lanes are currently in place on both sides of Horse Ranch Creek Road from State Route 76 to Gold Palomino Way (with an occasional gap in the bike lane). Bicycle access to and from the school would be accommodated by these existing bike lanes, and bike racks will be provided on the school campus.

With regard to public transit, there is no existing transit service near the proposed school site. The nearest bus routes, which are operated by North County Transit District (NCTD), are Route 388, which runs along State Route 76 east of Pala, and Route 306, which runs along Mission Road west of Interstate 15. These bus routes are each approximately five miles away from the school site and would not, therefore, be used by students or staff at the school. The proposed school project would not adversely affect the performance of any transit or non-motorized transportation facilities and would not conflict with any plans or policies relative to these transportation modes.

Recommendations

To enhance pedestrian access and safety, the following measures are recommended for implementation in conjunction with the development of the school. These improvements would require review and approval by the County of San Diego.

1. Construct a sidewalk along the south side of Shire Court from Horse Ranch Creek Road to the cul-de-sac on the east end of Shire Court.

2. At the Horse Ranch Creek Road/Shire Court intersection, paint yellow school crosswalks on the south side of the intersection across Horse Ranch Creek Road and on the east side

of the intersection across Shire Court. The crosswalks should have a high visibility continental design.

With the implementation of the recommended improvement measures, the proposed project would be consistent with policies supporting alternative transportation because bike lanes, sidewalks, and crosswalks would be available on the roadways in the vicinity of the school and bike racks would be provided on the school campus.

Based on the traffic impact analysis and the discussion of non-motorized transportation and transit, the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Vehicle Miles Traveled (VMT)

Section 3.3.1 of the "County of San Diego Transportation Study Guidelines," which is titled "Screening Criteria for CEQA VMT Analysis" states that locally serving public facilities that serve the surrounding community would have a less than significant VMT impact and can be screened from a detailed VMT analysis. Section 3.3.1 of the report lists schools as an example of a locally serving facility. As the proposed project is a K-8 school, it can be screened from further VMT analysis, and the finding is that the proposed project would not result in a significant VMT impact.

Traffic Hazards and Incompatible Uses

Vehicular access to the proposed school site will be provided by an ingress-only driveway on the south side of Shire Court east of Horse Ranch Creek Road. Egress from the school site would be provided by a new driveway on the east side of Horse Ranch Creek Road at the south end of the school campus. This driveway would not generally be used for inbound traffic flow, but that direction could be available for bus, emergency vehicle, and maintenance vehicle access. Left turns at the Horse Ranch Creek Road driveway would not be permissible because of a raised median on Horse Ranch Creek Road. These driveways would be designed in accordance with County of San Diego and industry standards and would be subject to review and approval by the County of San Diego.

The increased levels of traffic, the increased number of pedestrians and bicyclists, and the increased number of vehicular turning movements that would occur at the school driveways and at the nearby intersections would result in an increased number of traffic conflicts and a corresponding increase in the probability of an accident occurring. These impacts would not be significant, however, because the streets, intersections, and driveways are designed and will be designed to accommodate the anticipated levels of vehicular and pedestrian activity. In addition, a new sidewalk would be constructed on the south side of Shire Court along the school campus frontage and crosswalks would be painted at the intersection of Horse Ranch Creek Road at Shire Court. These streets and intersections are properly designed to accommodate school-related traffic.

With regard to compatibility, this parcel of land has been designated as a school site in the Meadowood Specific Plan and was analyzed as a school in the certified EIR for the Specific Plan. There are, therefore, no impacts relative to incompatible uses.

As the existing and proposed roadway network, including the pedestrian and bicycle circulation features, could readily accommodate the anticipated school-related vehicular, pedestrian, and bicycle activity, the proposed project would not substantially increase hazards due to a geometric design feature or incompatible uses.

Emergency Access

The access and circulation features at the school, including the driveways, on-site roadways, parking lots, and fire lanes, would accommodate emergency ingress and egress by fire trucks, police units, and ambulance/paramedic vehicles. All access features would be subject to review and approval by the District, the County of San Diego, and the Division of the State Architect (DSA) design requirements. Emergency vehicles would be able to access the school grounds, the buildings, and all other areas of the school campus, including the play fields, via the two driveways and the on-site travel corridors. The proposed project would not, therefore, result in inadequate emergency access.

IV.
SUMMARY OF IMPACTS AND CONCLUSIONS

The key findings and conclusions of the traffic impact analysis are outlined below.

- The proposed school, which would accommodate up to 650 K-8 students, would generate an estimated 466 vehicle trips during the morning peak hour (252 inbound and 214 outbound) and 1,438 trips per day.

- The levels of traffic generated by the school would not result in a significant impact at any of the study area intersections based on the projected levels of service and the significance criteria used by the County of San Diego and Caltrans for evaluating significant traffic impacts.

- All 10 of the study area intersections are projected to operate at an acceptable level of service (LOS A through D) during the morning peak period for the "existing plus project" and the "year 2028 with project" scenarios. The County of San Diego and Caltrans guidelines indicate that LOS A through D represents acceptable conditions that would not require mitigation or improvements. The afternoon peak hour was not addressed because the school-generated traffic does not coincide with the afternoon commuter peak period.

- To enhance pedestrian access and safety, the following measures are recommended for implementation in conjunction with the development of the school. These improvements would require review and approval by the County of San Diego.

    1. Construct a sidewalk along the south side of Shire Court from Horse Ranch Creek Road to the cul-de-sac on the east end of Shire Court.

    2. At the Horse Ranch Creek Road/Shire Court intersection, paint yellow school crosswalks on the south side of the intersection across Horse Ranch Creek Road and on the east side of the intersection across Shire Court. The crosswalks should have a high visibility continental design.

- CEQA threshold of significance T-1 asks if the proposed project would conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. The analysis indicates that the impact would be less than significant because:

    - The intersection levels of service would not be exceeded as a result of the proposed project, and

    - The proposed project would not adversely affect the performance or safety of any transit or non-motorized transportation facilities (pedestrians and bicycles) and would not conflict with any adopted plans, policies, or programs relative to these alternative transportation modes.

- CEQA threshold of significance T-2 asks if the proposed project would conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b), which addresses vehicle miles traveled (VMT). The analysis indicates that the project's impact would be less than significant because the proposed school is a locally serving public facility that serves the surrounding community. The County of San Diego guidelines state that such projects can be screened from a detailed VMT analysis.

- CEQA threshold of significance T-3 asks if the proposed project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). The analysis indicates that the roadways, intersections, and driveways are designed to accommodate the anticipated levels of vehicular and pedestrian activity. The proposed school would not result in any major hazards for vehicular traffic, pedestrians, or bicyclists and this site has previously been designated as a school in the applicable Specific Plan. The proposed project would not, therefore, substantially increase hazards due to a geometric design feature or incompatible uses.

- CEQA threshold of significance T-4 asks if the proposed project would result in inadequate emergency access. The proposed access and circulation features at the school, including the driveways, on-site roadways, parking lots, and fire lanes, would accommodate emergency ingress and egress by fire trucks, police units, and ambulance/paramedic vehicles. Emergency vehicles would be able to access the school grounds, buildings, and all other areas of the school, including the play fields, via on-site travel corridors. The proposed project would not result in inadequate emergency access.

Michael Baker
INTERNATIONAL

Appendix J: Traffic Memo

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GARLAND ASSOCIATES, INC.

MEMORANDUM

TO: Barbara Heyman, Michael Baker International

FROM: Richard Garland

DATE: April 20, 2023

SUBJECT: Bonsall East School
Horse Ranch Creek Road – San Diego County
Bonsall Unified School District
Comparison of TK-8 School vs. TK-5/6 School for Traffic Analysis

For the traffic analysis that was recently prepared for the proposed Bonsall East School, the evaluation of traffic impacts was based on a TK-8 school scenario with an assumed 430 elementary school students and 220 middle school students for a total of 650 students. A potential alternative scenario for the school is that it would be a TK-5 or a TK-6 facility. As an elementary school (ES) has a slightly higher trip generation rate than a middle school (MS), a 100 percent elementary school scenario would generate more traffic than would the combination elementary school/middle school that was addressed in the traffic analysis. So the trip generation volumes and the intersection levels of service have been recalculated to evaluate the "worst case" scenario of an elementary-only school.

The table below shows the comparative trip generation numbers for the combination ES/MS school and the ES-only school. As shown, the ES-only scenario would result in an increase of 15 trips during the peak hour (8 inbound and 7 outbound) and 38 trips per day as compared to the ES/MS scenario that was analyzed in the traffic report.

PROJECT GENERATED TRAFFIC				
School Type	**AM Peak Hour**			**Daily Traffic**
	Total	**Inbound**	**Outbound**	
TRIP GENERATION RATES (vehicle trips per student)				
Elementary School	0.74	54%	46%	2.27
Middle School	0.67	54%	46%	2.10
GENERATED TRAFFIC VOLUMES – COMBINATION ES/MS SCENARIO				
Elementary School (430 students)	318	172	146	976
Middle School (220 students)	148	80	68	462
Total	466	252	214	1,438
GENERATED TRAFFIC VOLUMES – ES-ONLY SCENARIO				
Elementary School (650 students)	481	260	221	1,476
Traffic Volume Increase for ES	15	8	7	38

Traffic Engineering, Transportation Planning, and Parking Studies

16787 Beach Boulevard, #234, Huntington Beach, CA 92647
Telephone: 714-330-8984

To determine if this slight increase in school-generated traffic volumes would alter the findings of the traffic impact analysis, the levels of service at the 10 study area intersections were recalculated. The delay values and levels of service (LOS) for each intersection are shown in the table below for the existing conditions baseline scenario.

PROJECT IMPACT ON INTERSECTION LEVELS OF SERVICE EXISTING CONDITIONS AS BASELINE				
Intersection	**Delay Value & LOS**			**Signif-icant Impact ES-Only**
	Existing Conditions	**Existing Plus Project ES/MS**	**Existing Plus Project ES-Only**	
SIGNALIZED INTERSECTION				
Horse Ranch Creek Rd at State Route 76	19.8 – B	27.2 – C	27.6 – C	No
INTERSECTIONS WITH STOP SIGNS				
Horse Ranch Creek Rd at Friesian Way	11.1 – B	11.8 – B	11.8 – B	No
Horse Ranch Creek Rd at Gold Palomino Way	11.5 – B	12.7 – B	12.7 – B	No
Horse Ranch Creek Rd at Andalusian Way	10.0 – B	11.0 – B	11.0 – B	No
Horse Ranch Creek Rd at Hackney Way	8.8 – A	9.0 – A	9.0 – A	No
Horse Ranch Creek Rd at Meadowood Street	10.5 – B	11.3 – B	11.3 – B	No
Horse Ranch Creek Rd at Shire Court	9.5 – A	12.4 – B	12.6 – B	No
Horse Ranch Creek Rd at School Driveway	N/A	11.4 – B	11.5 – B	No
Horse Ranch Creek Rd at Pankey Place	9.2 – A	11.1 – B	11.2 – B	No
State Route 76 at Pankey Road	25.8 – D	29.1 – D	29.2 – D	No

As shown in the above table, the intersection levels of service would be the same for the two school scenarios. Five of the intersections would have no increase in the average vehicle delay values while the increase in delay at the affected intersections would range from 0.1 to 0.4 seconds per vehicle for the ES-only scenario as compared to the ES/MS scenario. All of the intersections would continue to operate at acceptable levels of service (defined as LOS D or better by San Diego County) and the school project would not result in a significant impact relative to traffic conditions.

The delay values and levels of service (LOS) for each study area intersection are shown in the table below for the year 2028 baseline scenario. As shown, the intersection levels of service would be the same for the two school scenarios for all of the intersections except one, which is the intersection of Horse Ranch Creek Road at Shire Court. That intersection would operate at LOS C for the ES/MS scenario and would cross the threshold into LOS D for the ES-only scenario. Five of the intersections would have no increase in the average vehicle delay values while the increase in delay at the affected intersections would range from 0.1 to 0.9 seconds per vehicle for the ES-only scenario as compared to the ES/MS scenario. All of the intersections would continue to operate at acceptable levels of service and the school project would not result in a significant impact relative to traffic conditions.

PROJECT IMPACT ON INTERSECTION LEVELS OF SERVICE YEAR 2028 AS BASELINE				
Intersection	**Delay Value & LOS**			**Signif-icant Impact ES-Only**
	2028 Without Project	**2028 With Project ES/MS**	**2028 With Project ES-Only**	
SIGNALIZED INTERSECTION				
Horse Ranch Creek Rd at State Route 76	21.8 – C	33.8 – C	34.6 – C	No
State Route 76 at Pankey Road	24.4 – C	25.0 – C	25.0 – C	No
INTERSECTIONS WITH STOP SIGNS				
Horse Ranch Creek Rd at Friesian Way	19.1 – C	22.4 – C	22.4 – C	No
Horse Ranch Creek Rd at Gold Palomino Way	17.4 – C	21.3 – C	21.3 – C	No
Horse Ranch Creek Rd at Andalusian Way	11.0 – B	12.3 – B	12.4 – B	No
Horse Ranch Creek Rd at Hackney Way	9.7 – A	10.0 – A	10.0 – A	No
Horse Ranch Creek Rd at Meadowood Street	12.8 – B	14.1 – B	14.1 – B	No
Horse Ranch Creek Rd at Shire Court	12.1 – B	24.9 – C	25.8 – D	No
Horse Ranch Creek Rd at School Driveway	N/A	13.8 – B	14.0 – B	No
Horse Ranch Creek Rd at Pankey Place	12.9 – B	19.1 – C	19.4 – C	No

The conclusion of the recalculated traffic analysis for the "worst case" ES-only scenario is that the school project would not result in a significant impact because all of the study area intersections would continue to operate at acceptable levels of service for the "with project" scenario regardless of whether the school operates as a combination ES/MS or as an ES-only school. The ES-only scenario would result in slightly higher school-generated traffic volumes, but the overall finding of no significant traffic impacts would be the same for both scenarios based on the analysis of intersection levels of service.