INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

FOR THE

LONE TREE RESIDENTIAL PROJECT

OCTOBER 2023

Prepared for:

City of Brentwood – City Hall
150 City Park Way
Brentwood, CA 94513
(925) 516-5400

Prepared by:

De Novo Planning Group
1020 Suncast Lane, Suite 106
El Dorado Hills, CA 95762
(916) 949-3231

De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

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Proposed Mitigated Negative Declaration for the Lone Tree Residential Project

Lead Agency:
City of Brentwood – City Hall
150 City Park Way
Brentwood, CA 94513

Project Title: Lone Tree Residential

Project Location: The approximately 16.3-acre project site is located at 7590 and 7650 Lone Tree Way, directly north of Lone Tree Way, and east of O'Hara Avenue, in the northeastern portion of Brentwood. The project site is generally bound by Lone Tree Way to the south, existing residences to the west and north, and vacant and residential land to the east. The project site is identified by Contra Costa County as Assessor's Parcel Numbers (APNs) 018-060-006 and 018-060-007. The project's location is shown in Figure 1. The project is located on a flat site approximately 75 to 80 feet above mean sea level.

Project Description: The proposed project consists of a subdivision of a 16.3-acre site into 35 R-VLD lots, a park parcel (Parcel Z, approximately 0.58 acres, being offered to the City for park land dedication, subject to reimbursement), and the southerly 70' strip of land (approximately 1.69 acres, being offered to the City for Lone Tree Way street dedication, subject to reimbursement). One of the R-VLD lots is also being split into 2 lots to accommodate a pair of duet homes, which is allowed by right per the City's affordable housing ordinance. The proposed project would result in a density of 2.1 dwelling units per acre, which would be within the permitted density range described in the section "General Plan Designations"; an average lot size of approximately 13,000 square feet, which would be consistent with zoning described in the section "Zoning Designations"; and single- and two-story home sizes ranging from approximately 1600 square feet to 4000 square feet. These homes include dwelling units to meet the City's affordable housing requirements. Access to the project would be provided from Lone Tree Way via two proposed internal streets - Christopher Way and Grace Loop. Lone Tree Way frontage would be widened from the existing edge of pavement and improved along the project frontage to accommodate said access (see tentative map) consistent with the General Plan. Although not a part of this project, Lone Tree Way's ultimate right-of-way width is 140' for a 4-lane arterial road. Through a combination of the City's Capital Improvement Program and Development Fee Program, Lone Tree Way will be widened from the existing 2 lanes to 4 lanes and a new traffic signal will be installed at the Lone Tree Way and Smith Rd intersection. The proposed project includes the installation of water, sewer, storm drain, and dry utilities within the internal streets that would connect to existing utilities within Lone Tree Way. The proposed project would be incorporating stormwater treatment measures into the project consistent with the Contra Costa Clean Water Program C.3 Guidebook.

Findings:

In accordance with the California Environmental Quality Act, the City of Brentwood has prepared an Initial Study to determine whether the proposed project may have a significant adverse effect on the environment. The Initial Study and Proposed Mitigated Negative Declaration reflect the independent judgment of City of Brentwood staff. On the basis of the Initial Study, the City of Brentwood hereby finds:

> *Although the proposed project could have a significant adverse effect on the environment, there will not be a significant adverse effect in this case because the project has incorporated specific provisions to reduce impacts to a less than significant level and/or the mitigation measures described herein have been added to the project. A Mitigated Negative Declaration has thus been prepared.*

The Initial Study, which provides the basis and reasons for this determination, is attached and/or referenced herein and is hereby made a part of this document.

_____ _____

Signature Date

Proposed Mitigation Measures:

The following Mitigation Measures are extracted from the Initial Study. These measures are designed to avoid or minimize potentially significant impacts, and thereby reduce them to an insignificant level. A Mitigation Monitoring and Reporting Program (MMRP) is an integral part of project implementation to ensure that mitigation is properly implemented by the City and the implementing agencies. The MMRP will describe actions required to implement the appropriate mitigation for each CEQA category including identifying the responsible agency, program timing, and program monitoring requirements. Based on the analysis and conclusions of the Initial Study, the impacts of proposed project would be mitigated to less-than-significant levels with the implementation of the mitigation measures presented below.

AESTHETICS

Mitigation Measure AES-1*: In conjunction with development of the proposed project, the developer shall shield all on-site lighting so that nighttime lighting is directed within the project site and does not illuminate adjacent properties. A detailed lighting plan shall be submitted for the review and approval by the Community Development Department and the Public Works Department in conjunction with the project improvement plans. The lighting plan shall indicate the locations and design of the shielded light fixtures.*

AIR QUALITY

Mitigation Measure AIR-1: *Prior to the issuance of a grading permit, the Applicant/Developer shall prepare an Erosion Prevention and Dust Control Plan. The plan shall be followed by the project's grading contractor and submitted to the Public Works Department, which will be responsible for field verification of the plan during construction.*

The plan shall comply with the City's grading ordinance and shall include the following control measures and other measures as determined by the Public Works Department to be necessary for the proposed project:

- *Cover all trucks hauling construction and demolition debris from the site;*
- *Water all exposed or disturbed soil surfaces at least twice daily;*
- *Use watering to control dust generation during demolition of structures or break-up of pavement;*
- *Pave, apply water three time daily, or apply (non-toxic) soil stabilizers on all unpaved parking areas and staging areas;*
- *Sweep daily (with water sweepers) all paved parking areas and staging areas;*
- *Provide daily clean-up of mud and dirt carried onto paved streets from the site;*
- *Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.);*
- *Limit traffic speeds on unpaved roads to 15 mph;*
- *Install sandbags or other erosion control measures to prevent silt runoff to public roadways;*
- *Replant vegetation in disturbed areas as quickly as possible;*
- *Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site;*
- *Install wind breaks, or plant trees/vegetative wind breaks at windward side(s) or construction areas;*
- *Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph, and/or implement dust monitoring/sampling to ensure that background dust levels are not exceeded due to grading;*
- *Limit the area subject to excavation, grading, and other construction activity at any one time;*

- *Unnecessary idling of construction equipment shall be avoided;*
- *Equipment engines shall be maintained in proper working condition per manufacturers' specifications;*
- *During periods of heavier air pollution (May to October), the construction period shall be lengthened to minimize the amount of equipment operating at one time;*
- *Where feasible, the construction equipment shall use cleaner fuels, add-on control devices and conversion to cleaner engines.*

Mitigation Measure AIR-2: *To the extent feasible, construction employees shall be hired from local populations, since it is more likely that they have been previously exposed to the fungus which causes Valley Fever and are therefore immune.*

Mitigation Measure AIR-3: *During periods of high dust in the grading phase, crews must use National Institute for Occupational Safety and Health (NIOSH) approved N95 masks or better or other more stringent measures in accordance with the California Division of Occupational Safety and Health regulations.*

Mitigation Measure AIR-4: *The operator cab of area grading and construction equipment must be enclosed and air-conditioned.*

BIOLOGICAL RESOURCES

Mitigation Measure BIO-1: *Prior to any ground disturbance related to activities covered under the ECCCHCP/NCCP, the project applicant will need to comply with the required species-specific avoidance and minimization requirements for Western Burrowing Owl, as follows:*

Preconstruction Surveys

Prior to any ground disturbance related to covered activities, the project proponent shall hire a USFWS/CDFW-approved biologist to conduct a preconstruction survey in areas identified in the planning surveys as having potential burrowing owl habitat. The surveys will establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines (California Department of Fish and Game 1995).

On the parcel where the activity is proposed, the biologist shall survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership will not be surveyed. Surveys should take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls will be identified and mapped. Surveys will take place no more than 30 days prior to construction. During the breeding season (February 1– August 31), surveys will document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1–January 31), surveys will document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results will be valid only for the season (breeding or nonbreeding) during which the survey is conducted.

Avoidance and Minimization and Construction Monitoring

If burrowing owls are found during the breeding season (February 1 – August 31), the project proponent shall avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance will include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 – January 31), the project proponent shall avoid the owls and the burrows they are using, if possible. Avoidance will include the establishment of a buffer zone (described below).

During the breeding season, buffer zones of at least 250 feet in which no construction activities can occur will be established around each occupied burrow (nest site). Buffer zones of 160 feet will be established around each burrow being used during the nonbreeding season. The buffers will be delineated by highly visible, temporary construction

fencing.

If occupied burrows for burrowing owls are not avoided, passive relocation shall be implemented. Owls shall be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors shall be in place for 48 hours prior to excavation. The project area shall be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation. Plastic tubing or a similar structure shall be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

Mitigation Measure BIO-2: *Prior to any ground disturbance related to activities covered under the ECCCHCP/NCCP, the project applicant will need to comply with the required species-specific avoidance and minimization requirements for Swainson's Hawk, as follows:*

Preconstruction Survey

Prior to any ground disturbance related to covered activities that occurs during the nesting season (March 15–September 15), the project proponent shall hire a qualified biologist to conduct a preconstruction survey no more than 1 month prior to construction to establish whether Swainson's hawk nests within 1,000 feet of the project site are occupied. If potentially occupied nests within 1,000 feet are off the project site, then their occupancy shall be determined by observation from public roads or by observations of Swainson's hawk activity (e.g., foraging) near the project site. If nests are occupied, minimization measures and construction monitoring are required (see below).

Avoidance and Minimization and Construction Monitoring

During the nesting season (March 15–September 15), covered activities within 1,000 feet of occupied nests or nests under construction will be prohibited to prevent nest abandonment. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be used, the Implementing Entity shall coordinate with CDFW/USFWS to determine the appropriate buffer size.

If young fledge prior to September 15, covered activities can proceed normally. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant can apply to the Implementing Entity for a waiver of this avoidance measure. Any waiver must also be approved by USFWS and CDFW. While the nest is occupied, activities outside the buffer can take place.

All active nest trees shall be preserved on site, if feasible. Nest trees, including non-native trees, lost to covered activities shall be mitigated by the project proponent according to the requirements below.

Mitigation for Loss of Nest Trees

The loss of non-riparian Swainson's hawk nest trees shall be mitigated by the project proponent by:

- *If feasible on-site, planting 15 saplings for every tree lost with the objective of having at least 5 mature trees established for every tree lost according to the requirements listed below.*

  AND either

  1) Pay the Implementing Entity an additional fee to purchase, plant, maintain, and monitor 15 saplings on the HCP/NCCP Preserve System for every tree lost according to the requirements listed below, OR

  2) The project proponent shall plant, maintain, and monitor 15 saplings for every tree lost at a site to be approved by the Implementing Entity (e.g., within an HCP/NCCP Preserve or existing open space linked to HCP/NCCP preserves), according to the requirements listed below.

The following requirements shall be met for all planting options:

- *Tree survival shall be monitored at least annually for 5 years, then every other year until year 12. All trees lost during the first 5 years shall be replaced. Success will be reached at the end of 12 years if at least 5 trees per*

tree lost survive without supplemental irrigation or protection from herbivory. Trees must also survive for at least three years without irrigation.

- *Irrigation and fencing to protect from deer and other herbivores may be needed for the first several years to ensure maximum tree survival.*

- *Native trees suitable for this site shall be planted. When site conditions permit, a variety of native trees shall be planted for each tree lost to provide trees with different growth rates, maturation, and life span, and to provide a variety of tree canopy structures for Swainson's hawk. This variety will help to ensure that nest trees will be available in the short term (5-10 years for cottonwoods and willows) and in the long term (e.g., Valley oak, sycamore). This will also minimize the temporal loss of nest trees.*

- *Riparian woodland restoration conducted as a result of covered activities (i.e., loss of riparian woodland) can be used to offset the nest tree planting requirement above, if the nest trees are riparian species.*

- *Whenever feasible and when site conditions permit, trees should be planted in clumps together or with existing trees to provide larger areas of suitable nesting habitat and to create a natural buffer between nest trees and adjacent development (if plantings occur on the development site).*

- *Whenever feasible, plantings on the site shall occur closest to suitable foraging habitat outside the UDA.*

- *Trees planted in the HCP/NCCP preserves or other approved offsite location shall occur within the known range of Swainson's hawk in the inventory area and as close as possible to high-quality foraging habitat.*

Mitigation Measure BIO-3: *Prior to any ground disturbance related to activities covered under the ECCCHCP/NCCP, the project applicant will need to comply with the required species-specific avoidance and minimization requirements for Golden Eagle, as follows:*

Preconstruction Survey

Prior to implementation of covered activities, the project proponent shall hire a qualified biologist to conduct a preconstruction survey to establish whether nests of golden eagles are occupied (see Section 6.3.1, Planning Surveys). If nests are occupied, minimization requirements and construction monitoring shall be required.

Avoidance and Minimization

Covered activities shall follow the protocols as provided under the ECCCHCP/NCCP.

Mitigation Measure BIO-4:

The Project Applicant shall:

Pre-construction Phase

- *Prior to and/or during project construction or grading, remove the on-site trees;*
- *Prior to project construction or grading, the contractor shall install chain-link fencing at the driplines of off-site trees identified in the Arborist Report as #s 158-160 (by parcels 31 & 32), to construct a temporary Tree Protection Zone (TPZ) as indicated on the tree protection plan contained within the project Arborist Report. TPZ fencing shall remain in an upright sturdy manner until the retaining wall excavation begins, with the project arborist on-site.*

Foundation, Grading, and Construction Phase

- *The project arborist shall be on-site during excavation of the retaining wall footing within the driplines of off-site trees #158-160. Roots greater than 2" shall be cleanly pruned with a handsaw or sawzall, immediately covered, and kept moist till backfilled.*

- *Should TPZ encroachment be necessary, the contractor shall contact the project arborist for consultation and recommendations.*

- *Contractor shall keep TPZs free of all construction-related materials, debris, fill soil, equipment, etc. The only acceptable material is mulch spread out beneath the trees.*

- *Should any damage to the trees occur, the contractor shall promptly notify the project arborist to appropriately mitigate the damage.*

Mitigation Measure BIO-5*: Prior to the issuance of grading or construction permits for the project site, the developer shall submit an application and obtain coverage under the ECCCHCP. This will include payment of the applicable ECCCHCP per- acre fee in effect for Zone I in compliance with Section 16.168.070 of the Brentwood Municipal Code. The developer shall receive a Certificate of Coverage from the City of Brentwood and submit a construction monitoring report to the ECCC Habitat Conservancy for review and approval. The Certificate of Coverage will confirm the fee has been received, that other ECCC HCP/NCCP requirements have been met or will be performed, and will authorize take of covered species.*

CULTURAL RESOURCES

Mitigation Measure CUL-1: *Prior to grading permit issuance, the developer shall submit plans to the Community Development Department for review and approval which indicate (via notation on the improvement plans) that if historic and/or cultural resources are encountered during site grading or other site work, all such work shall be halted immediately within 100 feet of the area of discovery and the developer shall immediately notify the Community Development Department of the discovery. In such case, the developer shall be required, at their own expense, to retain the services of a qualified archaeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist shall be required to submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the area of discovery would not be allowed until the preceding work has occurred.*

Mitigation Measure CUL-2: *Pursuant to State Health and Safety Code §7050.5 (c) State Public Resources Code §5097.98, if human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find and the Contra Costa County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission who shall notify the person believed to be the most likely descendant. The most likely descendant (or, if there is none able to be identified, the Native Heritage Commission itself), shall work with the contractor to develop a program for reinternment of the human remains and any associated artifacts. Additional work is not to take place within the immediate vicinity of the find until the identified appropriate actions have been implemented.*

GEOLOGY AND SOILS

Mitigation Measure GEO-1: *All project buildings shall be designed in conformance with the current edition of the California Building Code (CBC), as adopted and amended by the City of Brentwood.*

Mitigation Measure GEO-2: *Prior to final design approval and issuance of building permits for each phase of the project, the project applicant shall incorporate the recommendations included in the Geotechnical Exploration prepared by ENGEO (dated March 24, 2022) into the project design and specifications related to the following topics:*

- *Earthwork*
    - *General Site Clearing*
    - *Site Preparation*
    - *Over-Optimum Soil Moisture Conditions*
    - *Acceptable Fill*
    - *Fill Compaction*
    - *Underground Utility Backfill*
    - *Site Drainage*

- *Foundation Design*
    - *Post-Tensioned Mat Foundations*
    - *Moisture Vapor Reduction*
    - *Secondary Slabs-on-grade*
- *Soundwall and Retaining Walls*
    - *Lateral Soil Pressures*
    - *Retaining Wall Foundations*
    - *Retaining Wall Drainage*
- *Pavement Design*

Mitigation Measure GEO-3: *All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the City Engineer, Chief Building Official, and a qualified Geotechnical Engineer prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the project design in order to adhere to all geotechnical requirements contained in the California Building Code.*

Mitigation Measure GEO-4: *Prior to grading permit issuance, the applicant shall submit a final grading plan to the City Engineer for review and approval. If the grading plan differs significantly from the proposed grading illustrated on the approved project plans, plans that are consistent with the new revised grading plan shall be provided for review and approval by the City Engineer.*

Mitigation Measure GEO-5: *Any applicant for a grading permit shall submit an erosion control plan to the City Engineer for review and approval. The plan shall identify protective measures to be taken during construction, supplemental measures to be taken during the rainy season, the sequenced timing of grading and construction, and subsequent revegetation and landscaping work to ensure water quality in creeks and tributaries in the General Plan Area is not degraded from its present level. All protective measures shall be shown on the grading plans and specify the entity responsible for completing and/or monitoring the measure and include the circumstances and/or timing for implementation.*

Mitigation Measure GEO-6: *Grading, soil disturbance, or compaction shall not occur during periods of rain or on ground that contains freestanding water. Soil that has been soaked and wetted by rain or any other cause shall not be compacted until completely drained and until the moisture content is within the limit approved by a Soils Engineer. Approval by a Soils Engineer shall be obtained prior to the continuance of grading operations. Confirmation of this approval shall be provided to the Public Works Department prior to commencement of grading.*

Mitigation Measure GEO-7: *Should construction or grading activities result in the discovery of unique paleontological resources, all work within 100 feet of the discovery shall cease. The Community Development Director shall be notified, and the resources shall be examined by a qualified archaeologist, paleontologist, or historian, at the developer's expense, for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist, paleontologist, or historian shall submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Work may only resume in the area of discovery when the preceding work has occurred. The language of this mitigation measure shall be included via notation on the Project improvement plans.*

HAZARDS AND HAZARDOUS MATERIALS

Mitigation Measure HAZ-1: *Prior to issuance of grading permits, the Applicant shall hire a qualified professional to* ***Mitigation Measure HAZ-1:*** *Prior to issuance of grading permits, the Applicant shall hire a qualified professional to* *evaluate the soil quality immediately surrounding (i.e. within 10 feet of) building footprints and in the agricultural fields for pesticides, herbicides and related metals (including lead and arsenic). Additionally, prior to demolition of*

project site structures, the Applicant shall hire a qualified licensed contractor to conduct pre-demolition asbestos and lead-based paint surveys for the existing buildings located on the project site. The results of the sampling shall be provided to the City of Brentwood. Any identified asbestos-containing materials (ACMs) and/or lead based paints (LBPs) shall be abated by a licensed contractor, in accordance with federal and state law, prior to grading activities.

Mitigation Measure HAZ-2: *Prior to the issuance of grading permits, the Applicant shall conduct an underground storage tank survey around the existing structures and in areas where underground storage tanks may be suspected. If any underground storage tanks are discovered, they shall be removed, consistent with the requirements of the Contra Costa County Environmental Health Division.*

Mitigation Measure HAZ-3: *Prior to the issuance of grading permits, the Applicant shall ensure the unused well located on the project site is abandoned, and that any septic systems remaining on the project site are removed. Removals shall be done to the standards established by the Contra Costa County Environmental Health Division.*

HYDROLOGY AND WATER QUALITY

Mitigation Measure HYD-1: *Prior to issuance of grading permits, the contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP). The Developer shall file the Notice of Intent (NOI) and associated fee to the SWRCB. The SWPPP shall serve as the framework for identification, assignment, and implementation of BMPs. The contractor shall implement BMPs to reduce pollutants in stormwater discharges consistent with the requirements established in 15.52.60(F): Erosion and Sediment Control of the City's Municipal Code. The SWPPP shall be submitted to the City Engineer for review and approval and shall remain on the project site during all phases of construction. Following implementation of the SWPPP, the contractor shall subsequently demonstrate the SWPPP's effectiveness and provide for necessary and appropriate revisions, modifications, and improvements to reduce pollutants in stormwater discharges to the maximum extent practicable.*

Mitigation Measure HYD-2: *Prior to the completion of construction, the applicant shall prepare and submit, for the City's review, an acceptable Stormwater Control Operation and Maintenance Plan. In addition, prior to the sale, transfer, or permanent occupancy of the site, the applicant shall be responsible for paying for the long-term maintenance of treatment facilities, and executing a Stormwater Management Facilities Operation and Maintenance Agreement and Right of Entry in the form provided by the City of Brentwood. The applicant shall accept the responsibility for maintenance of stormwater management facilities until such responsibility is transferred to another entity.*

The applicant shall submit, with the application of building permits, a draft Stormwater Facilities and Maintenance Plan, including detailed maintenance requirements and a maintenance schedule for the review and approval by the City Engineer. Typical routine maintenance consists of the following:

- *Limit the use of fertilizers and/or pesticides. Mosquito larvicides shall be applied only when absolutely necessary.*
- *Replace and amend plants and soils as necessary to ensure the planters are effective and attractive. Plants must remain healthy and trimmed if overgrown. Soils must be maintained to efficiently filter the storm water.*
- *Visually inspect for ponding water to ensure that filtration is occurring.*
- *After all major storm events, remove bubble-up risers for obstructions and remove if necessary.*
- *Continue general landscape maintenance, including pruning and cleanup throughout the year.*
- *Irrigate throughout the dry season. Irrigation shall be provided with sufficient quantity and frequency to allow plants to thrive.*
- *Excavate, clean and or replace filter media (sand, gravel, topsoil) to insure adequate infiltration rate (annually or as needed).*

Mitigation Measure HYD-3: *Design of both the on-site drainage facilities shall meet with the approval of both the City Engineer and the Contra Costa County Flood Control and Water Conservation District prior to the issuance of grading permits.*

Mitigation Measure HYD-4: *Contra Costa County Flood Control and Water Conservation District drainage fees for the Drainage Area shall be paid prior to issuance of grading permits to the satisfaction of the City Engineer.*

Mitigation Measure HYD-5: *The Applicant/Developer shall ensure that the project site shall drain into a street, public drain, or approved private drain, in such a manner that un-drained depressions shall not occur. Satisfaction of this measure shall be subject to the approval of the City Engineer.*

Mitigation Measure HYD-6: *The improvement plans shall indicate concentrated drainage flows not crossing sidewalks or driveways for the review and approval of the City Engineer prior to the issuance of grading permits.*

NOISE

Mitigation Measure NOI-1: *Construction activities shall be limited to the hours set forth below:*

- *Monday-Friday 7:00 AM to 6:00 PM;*
- *Saturday 8:00 AM to 5:00 PM*

Construction shall be prohibited on Sundays and City holidays. These criteria shall be included in the grading plan submitted by the applicant/developer for review and approval of the Community Development Director prior to issuance of grading permits. Exceptions to allow expanded construction activities shall be reviewed on a case-by-case basis as determined by the Chief Building Official and/or City Engineer.

Mitigation Measure NOI-2: *The project contractor shall ensure that the following construction noise BMPs are met on-site during all phases of construction:*

- *All equipment driven by internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications. Mobile or fixed "package" equipment (e.g., arc welders, air compressors) shall be equipped with shrouds and noise- control features that are readily available for that type of equipment.*
- *All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.*
- *The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists.*
- *At all times during project grading and construction, stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from residences.*
- *Unnecessary idling of internal combustion engines shall be prohibited.*
- *Construction staging areas shall be established at locations that would create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction activities, to the extent feasible.*
- *Construction site and access road speed limits shall be established and enforced during the construction period.*
- *The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.*
- *Project-related public address or music systems shall not be audible at any adjacent receptor.*
- *Neighbors located adjacent to the construction site shall be notified of the construction schedule in writing.*
- *The construction contractor shall designate a "noise disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall be responsible for determining the cause of the noise complaint (e.g., starting too early, poor muffler, etc.) and instituting reasonable measures as warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.*

Construction noise BMPs shall be included in the grading plan submitted by the developer for review and approval by the Director of Public Works/Engineering prior to grading permit issuance.

Mitigation Measure NOI-3: *Prior to approval of project improvement plans, the improvement plans for the proposed project shall show that the lots located closest to Lone Tree Way shall be shielded from the Lone Tree Way through the use of eight-foot-tall masonry sound walls per the approval of the City Engineer. Additionally, the project shall include an eight-foot-tall masonry sound wall at the location shown on Figure 5 of the Environmental Noise Assessment prepared by Saxelby Acoustics, to shield proposed residences from stationary noise. Other types of barriers may be employed but shall be reviewed by an acoustical engineer prior to being constructed to ensure that any proposed alternative barrier offers the same level of noise attenuation.*

PUBLIC SERVICES

Mitigation Measure PUB-1: *Prior to building permit issuance for any residential development, the developer shall submit to the Community Development Department written proof from the Liberty Union High School District and Brentwood Union School District that the appropriate school mitigation fees have been paid pursuant to Proposition 1A/SB 50.*

TRIBAL CULTURAL RESOURCES

Mitigation Measure TRI-1: *If cultural resources are discovered during project-related construction activities, all ground disturbances within a minimum of 50 feet of the find shall be halted until a qualified professional archaeologist can evaluate the discovery. The archaeologist shall examine the resources, assess their significance, and recommend appropriate procedures to the lead agency to either further investigate or mitigate adverse impacts. If the find is determined by the lead agency in consultation with the Native American tribe traditionally and culturally affiliated with the geographic area of the project site to be a tribal cultural resource and the discovered archaeological resource cannot be avoided, then applicable mitigation measures for the resource shall be discussed with the geographically affiliated tribe. Applicable mitigation measures that also take into account the cultural values and meaning of the discovered tribal cultural resource, including confidentiality if requested by the tribe, shall be completed (e.g., preservation in place, data recovery program pursuant to PRC §21083.2[i]). During evaluation or mitigative treatment, ground disturbance and construction work could continue on other parts of the project site.*

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INITIAL STUDY

PROJECT TITLE

Lone Tree Residential Project

LEAD AGENCY NAME AND ADDRESS

City of Brentwood
150 City Park Way
Brentwood, CA 94513

CONTACT PERSON AND PHONE NUMBER

Miguel Contreras, Associate Planner
City of Brentwood
Community Development Department
(925) 516-5405

PROJECT SPONSOR'S NAME AND ADDRESS

Seecon Financial & Construction Company
4021 Port Chicago Highway
Concord, CA 94520
(925) 671-7711

PURPOSE OF THE INITIAL STUDY

An Initial Study (IS) is a preliminary analysis, prepared pursuant to the California Environmental Quality Act (CEQA), to determine the potential environmental impacts associated with a proposed project. It is designed as a measuring mechanism to determine if a project may have a significant adverse effect on the environment, thereby triggering the need to prepare an Environmental Impact Report (EIR). It also functions as an evidentiary document containing information, which supports conclusions that the project will not have a significant environmental impact or that the impacts can be mitigated to a "Less Than Significant" or "No Impact" level. Under CEQA, if there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, the lead agency shall prepare a Negative Declaration (ND). If the IS identifies potentially significant effects, but: (1) revisions in the project plans or proposals would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and (2) there is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment, then a Mitigated Negative Declaration (MND) shall be prepared.

This Initial Study has been prepared consistent with CEQA regulations (known as the "CEQA Guidelines") Section 15063, to determine if the proposed Lone Tree Residential (project) may have a significant effect upon the environment. Based upon the findings and mitigation measures contained within this report, a Mitigated Negative Declaration (MND) will be prepared.

BACKGROUND

On July 22, 2014, the City of Brentwood City Council adopted a comprehensive General Plan update, which had last been updated in 1993 (a partial update involving the Growth Management, Land Use, and Circulation Elements was completed in 2001). An Environmental Impact Report (EIR) prepared for the General Plan update addressed the potential impacts associated with full build-out of the General Plan Land Use Diagram. The 2014 Brentwood General Plan update EIR was certified by the Brentwood City Council on July 22, 2014. The General Plan update Land Use Map designates the project site as Residential Very Low Density (R-VLD). Residential Very Low Density land uses are required to have a density of between 1.1 and 3.0 dwelling units per gross acre, with a mid-range of 2.0 units per gross acre. In accordance with Sections 15152, 15168 and 15183 of the CEQA Guidelines and Section 21083.3(b) of the Public Resources Code, this IS will tier from the previously certified EIR (SCH# 2014022058) prepared for the General Plan Update. The General Plan EIR is available for review on the City's website at https://www.brentwoodca.gov/gov/cd/planning/ceqa.asp. The current zoning designation of the project site is Single-Family Residential Estate (R-1-12).

PROJECT LOCATION AND SETTING

PROJECT LOCATION

The approximately 16.3-acre project site is located at 7590 and 7650 Lone Tree Way, directly north of Lone Tree Way, and east of O'Hara Avenue, in the northeastern portion of Brentwood. The project site is generally bound by Lone Tree Way to the south, existing residences to the west and north, and vacant and residential land to the east. The project site is identified by Contra Costa County as Assessor's Parcel Numbers (APNs) 018-060-006 and 018-060-007. The project's location is shown in Figure 1. The project is located on a flat site approximately 75 to 80 feet above mean sea level.

EXISTING SITE USES

The project site is currently an open grassland field that previously contained agricultural uses, and is undeveloped, except for two residential buildings located in the southwestern portion of the project site, an additional third residential property and agricultural buildings located in the southeastern portion of the project site. The project site consists mostly of disturbed ruderal grassland vegetation. There are scattered trees located primarily within the southwestern and southeastern portions of the project site, as well as surrounding the project site. The project site also contains some debris (containing broken-down metal and wood) located in an enclosed area in the northwestern portion of the project site.

Figure 2 displays the aerial view of the project site and surrounding area.

SURROUNDING LAND USES

Surrounding land uses predominantly include residential and former agricultural properties. A K-9 training center adjoins the site to the north and a Muslim community center adjoins the site to the south. The General Plan designates lands adjacent to the project site as Residential Very Low Density (R-VLD) to the north, east, and west, and Residential-Low Density (R-LD) and Semi-

Public Facility (SPF) to the south. Current uses within these areas include the Alert K-9 Training Center and residential uses to the north, vacant land and scattered residences to the east, the Brentwood Muslim Community Center to the south, and a Smart Start Preschool and residences to the west. Additionally, a public elementary school is anticipated to be constructed to the south of the Project site.

GENERAL PLAN DESIGNATIONS

The project site is currently designated Residential Very Low Density (R-VLD) by the City of Brentwood General Plan Land Use Map. The R-VLD designation accommodates fairly large lots for single family residences in an identifiable, suburban residential neighborhood, or cluster-style development designed with open space and other amenities. Neighborhoods with either development type will be part of the Brentwood urban area to be provided with urban public facilities and services. The permitted density range is 1.1 to 3.0 units per gross acre, with a midrange of 2.0 units per gross acre.

ZONING DESIGNATIONS

The project site is currently zoned (R-1-12) Single-Family Residential. As stated in Chapter 17.130 of the City's Municipal Code, the R-1-12 zone allows for single family residential type uses with a minimum lot area of 12,000 square feet.

PROJECT DESCRIPTION

The proposed project consists of a subdivision of a 16.3-acre site into 35 R-VLD lots, a park parcel (Parcel Z, approximately 0.58 acres, being offered to the City for park land dedication, subject to reimbursement), and the southerly 70' strip of land (approximately 1.69 acres, being offered to the City for Lone Tree Way street dedication, subject to reimbursement). One of the R-VLD lots is also being split into 2 lots to accommodate a pair of duet homes, which is allowed by right per the City's affordable housing ordinance.

The proposed project would result in a density of approximately 2.1 dwelling units per acre, which would be within the permitted density range described in the section "General Plan Designations"; an average lot size of approximately 13,000 square feet, which would be consistent with zoning described in the section "Zoning Designations"; and single- and two-story home sizes ranging from approximately 1600 square feet to 4000 square feet. These homes include dwelling units to meet the City's affordable housing requirements.

The project site is currently vacant. There were old, dilapidated houses but they were demolished under a separate demolition permit issued by the City (i.e., not part of this project).

Access to the project would be provided from Lone Tree Way via two proposed internal streets - Christopher Way and Grace Loop. Lone Tree Way frontage would be widened from the existing edge of pavement and improved along the project frontage to accommodate said access (see tentative map) consistent with the General Plan. Although not a part of this project, Lone Tree Way's ultimate right-of-way width is 140' for a 4-lane arterial road. Through a combination of the City's Capital Improvement Program and Development Fee Program, Lone Tree Way will be

widened from the existing 2 lanes to 4 lanes and a new traffic signal will be installed at the Lone Tree Way and Smith Rd intersection. The proposed site plan layout is shown in Figure 3.

The proposed project includes the installation of water, sewer, storm drain, and dry utilities within the internal streets that would connect to existing utilities within Lone Tree Way. The proposed project would be incorporating stormwater treatment measures into the project consistent with the Contra Costa Clean Water Program C.3 Guidebook. The proposed Utility Plan is shown on Figure 4.

REQUESTED ENTITLEMENTS AND OTHER APPROVALS

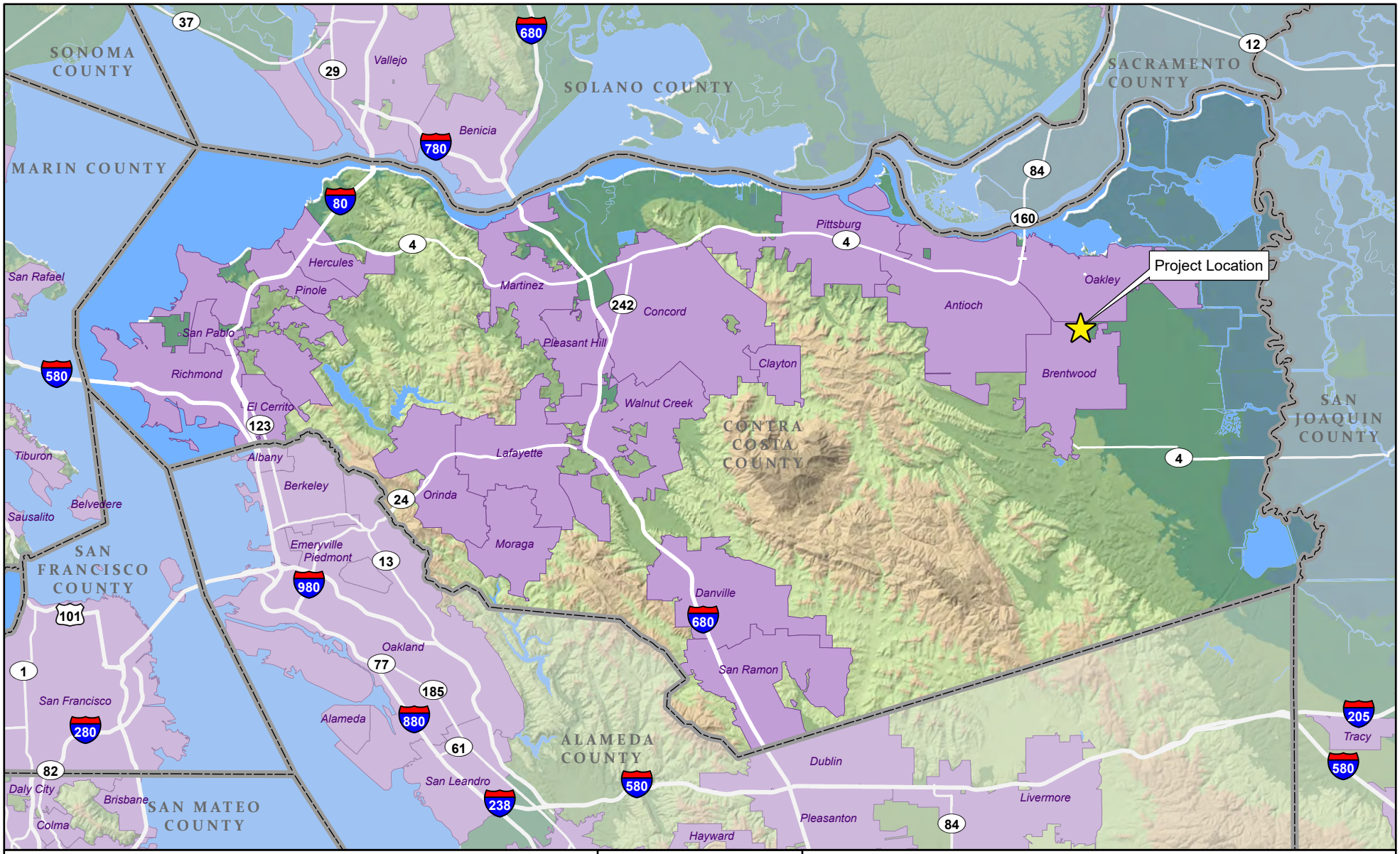
The City of Brentwood is the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of the California Environmental Quality Act (CEQA), Section 15050.

The applicant is requesting the following:

- Adoption of the Mitigated Negative Declaration (MND) and adoption of the Mitigation Monitoring and Reporting Program (MMRP)
- Approval of Vesting Tentative Subdivision Map 9597 to subdivide approximately 16.3 acres into 35 single-family detached residential parcels, three lettered parcels for right-of-way landscaping along the frontage of Lone Tree Way, and one lettered parcel (Parcel Z) for park dedication.
- Design Review of the proposed residential structures.
- Approval of an encroachment permit to construct offsite improvements to widen Lone Tree Way.

The following agencies may be required to issue permits or approve certain aspects of the proposed project:

- Bay Area Air Quality Management District (BAAQMD) - Approval of construction-related air quality permits.
- East Contra Costa County Habitat Conservancy (ECCCHP) - Review of project application to determine consistency with the East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan (ECCCHCP/NCCP).



LEGEND

County Boundary

Incorporated Area

N

0 2½ 5

Miles

LONE TREE WAY RESIDENTIAL
BRENTWOOD, CONTRA COSTA

Figure 1. Regional Location

Sources: Contra Costa County GIS. Map date: July 12, 2022.

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A Land Use Planning, Design, and Environmental Firm

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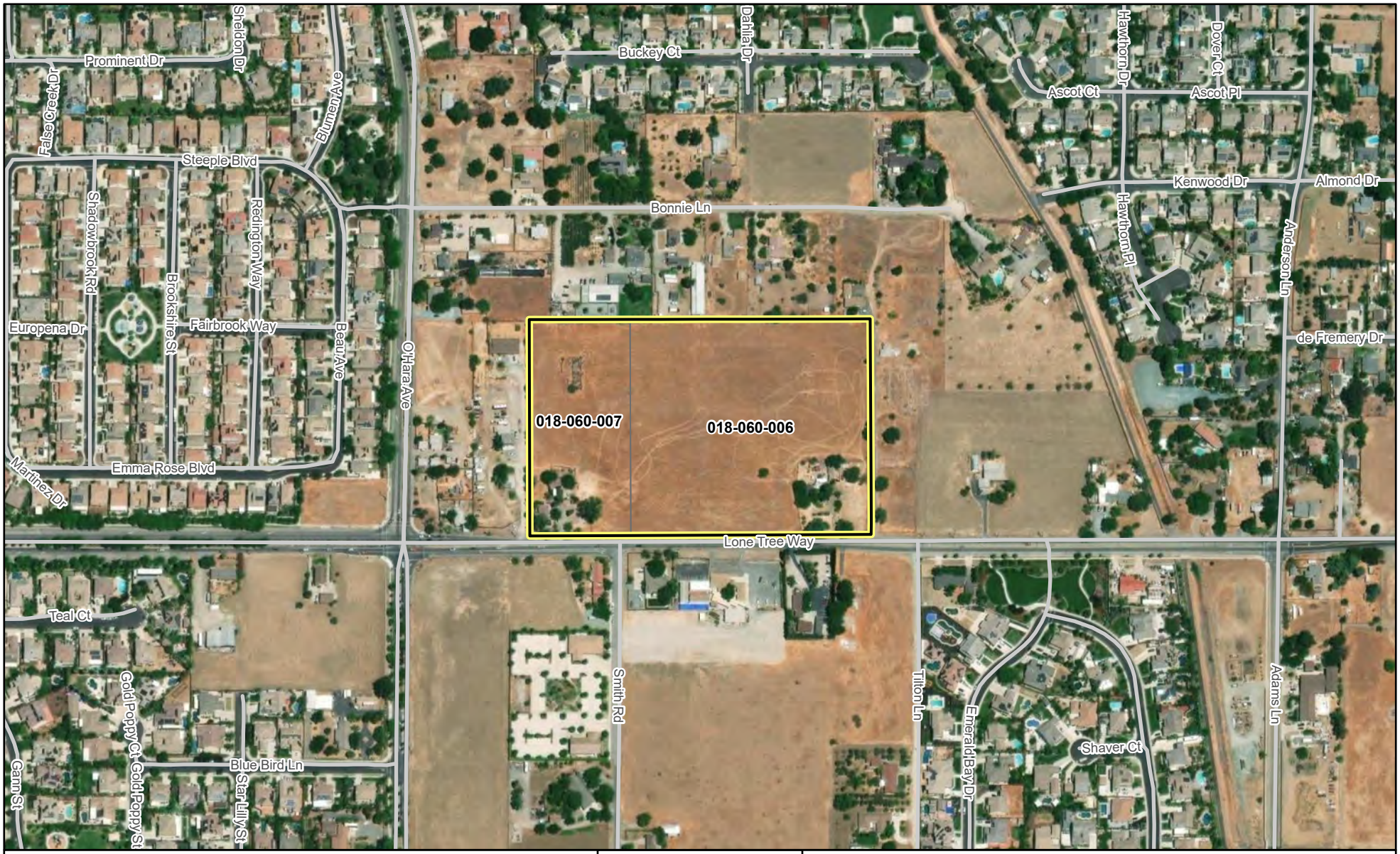

LEGEND

Project Boundary

N

0 100 200

Feet

LONE TREE WAY RESIDENTIAL
BRENTWOOD, CONTRA COSTA

Figure 2. Aerial View

Sources: Contra Costa County GIS. Map date: July 12, 2022.

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VESTING TENTATIVE MAP
SUB 9597 - 7590 & 7650 LONE TREE WAY PROPERTY

CITY OF BRENTWOOD, CONTRA COSTA COUNTY, CALIFORNIA

FOR: SEECON FINANCIAL & CONSTRUCTION CO.

BENCHMARK

CONTRA COSTA COUNTY BENCHMARK LABELED "BM 494" DESCRIBED AS A DISK LOCATED ON CONCRETE HEADWALL OF S.P. CROSSING OF EBMUD PIPELINE 1.9 MILES NORTHWEST ALONG S.P.R.R FROM BRENTWOOD AT BRIDGE 596-E3; OF NORTHWEST END OF HEADWALL ABOUT 60' NORTH OF MINNESOTA AVENUE.

ELEVATION: 86.617 (NGVD 29)

CONVERSION: 86.617 (NGVD 29) + 2.672 = 89.289 (NAVD 88)

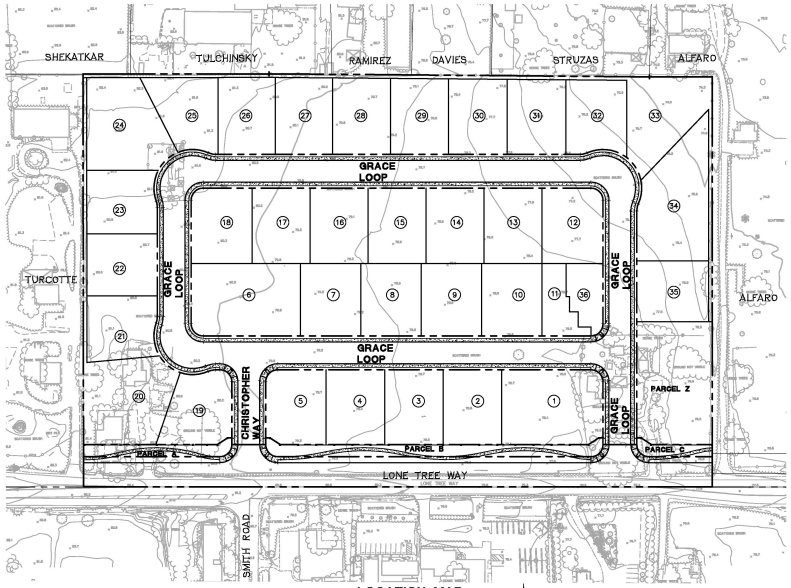
NOTE
1. THE TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS ARE BASED ON NAVD 88 DATUM ELEVATIONS.

LEGEND

PROPOSED	DESCRIPTION	EXISTING
	TRACT BOUNDARY	
	LOT LINE	
	RIGHT OF WAY	
	CENTER LINE	
	MATCH LINE	
	RETAINING WALL	
	EASEMENT LINE	
12"SD	STORM DRAIN	EX 12"SD
12"SS	SANITARY SEWER	EX 12"SS
12"W	POTABLE WATER	EX 12"W
6"W(R)	RECYCLED WATER	EX 6"W(R)
	CURB & GUTTER	EX FC
	SAWCUT	
	SIDEWALK	
	EARTH OR GRASS SWALE	
	VALLEY GUTTER	
	STORM WATER INLET	
	DROP INLET	
	AREA DRAIN	
	BUBBLE UP	
	MANHOLE	
	SANITARY SEWER CLEAN OUT	
	SANITARY SEWER LATERAL	
	FIRE HYDRANT	
	BLOW OFF	
	WATER SERVICE WITH METER BOX	
	BACKFLOW DEVICE	
	WATER VALVE	
	AIR RELEASE VALVE	
	POST INDICATOR VALVE	
	FIRE DEPARTMENT CONNECTION	
	SINGLE ARM STREET LIGHT	
	DOUBLE ARM STREET LIGHT	
	POST TOP LIGHT	
	PEDESTRIAN LIGHT	
	MONUMENT	
	TRAFFIC SIGN	
	STREET NAME SIGN	
	FENCE	
	BARRICADE	
	CURB RAMP	
100	CONTOUR ELEVATIONS	100
x 525.2	SPOT ELEVATION	x525.2
	NEW ASPHALT PAVEMENT	
	BIO-RETENTION AREA	

ABBREVIATIONS

AB	AGGREGATE BASE	P	PAD ELEVATION
AC	ASPHALT CONCRETE	PAE	PRIVATE VEHICLE ACCESS EASEMENT
AD	AREA DRAIN	PAV	PAVEMENT
BC	BEGINNING OF CURVE	PL	PROPERTY LINE
BOC	BACK OF CURVE	PIEE	PRIVATE VEHICULAR AND PEDESTRIAN INGRESS AND EGRESS EASEMENT
BNDY	BOUNDARY	PPAE	PRIVATE PEDESTRIAN ACCESS EASEMENT
BOT	BOTTOM	PSSE	PRIVATE SANITARY SEWER EASEMENT
BSW	BACK OF SIDEWALK	PSDE	PRIVATE STORM DRAIN EASEMENT
BW	BOTTOM OF WALL	PRSE	PRIVATE RECIPROCAL SIDEYARD EASEMENT
CL	CENTER LINE	PWLE	PRIVATE WATER LINE EASEMENT
DI	DROP INLET	PUE	PUBLIC UTILITY EASEMENT
DMA	DRAINAGE MANAGEMENT AREA	PVC	POLYVINYL CHLORIDE PIPE
DU	DWELLING UNITS	RCT	CURB RETURN
EC	END OF CURVE	RW	RIGHT OF WAY
ESMT	EASEMENT	SD	STORM DRAIN
EVAE	EMERGENCY VEHICLE ACCESS EASEMENT	SF	SQUARE FEET
EX	EXISTING	SL	STREET LIGHT
FC	FACE OF CURB	SNS	STREET NAME SIGN
FF	FINISHED FLOOR	SS	SANITARY SEWER
FG	FINISHED GRADE	SSCO	SANITARY SEWER CLEANOUT
FH	FIRE HYDRANT	STD	STANDARD
FL	FLOW LINE	SWE	PUBLIC SIDEWALK EASEMENT
GB	GRADE BREAK	SWK	SIDEWALK
HP	HIGH POINT	SW	STORM WATER INLET
INV	INVERT ELEVATION	TC	TOP OF CURB
LAT	LATERAL	TG	TOP OF GRATE
LF	LINEAR FOOT	TW	TOP OF WALL
LP	LOW POINT	TYP	TYPICAL
JT	JOINT TRENCH	W	WATER LINE
MAX	MAXIMUM	WLE	WATER LINE EASEMENT
MH	MANHOLE	WM	WATER METER
MIN	MINIMUM	WS	WATER SERVICE
OH	OVERHEAD		



LOCATION MAP
SCALE: 1"=80'

VICINITY MAP
NOT TO SCALE

1. OWNER: SEECON FINANCIAL & CONSTRUCTION CO.
4021 PORT CHICAGO HIGHWAY
CONCORD, CA 94520
(925) 671-7711
CONTACT: JACQUELINE M. SEENO

2. DEVELOPER: JACQUELINE M. SEENO CONSTRUCTION CO. INC.
4021 PORT CHICAGO HIGHWAY
CONCORD, CA 94520
(925) 671-7711
CONTACT: JACQUELINE M. SEENO

3. CIVIL ENGINEER: RUGGERI-JENSEN-AZAR
4690 CHABOT DRIVE, SUITE 200
PLEASANTON, CA 94588
(925) 227-9100
CONTACT: DOMINIC CARUCCI, RCE 85585

4. GEOTECHNICAL ENGINEER: ENGEO
2010 CROW CANYON PLACE, SUITE 250
SAN RAMON, CA 94583
(925) 866-9000
CONTACT: BAHAREH HEDARZADEH

5. ASSESSOR'S PARCEL NUMBERS: 018-060-006, 018-060-007

6. PROPERTY DESCRIPTION:
A PORTION OF LOTS 4, 5, 6, AND 7, AS DESIGNATED ON THE MAP ENTITLED "MAP OF THE PRENETTS ELLENDALE SUBDIVISION, FILED MARCH 5, 1912, IN BOOK 6 OF MAPS PAGE 141, CONTRA COSTA COUNTY RECORDS, AND A PORTION OF THE SOUTHWEST ¼ OF THE NORTHWEST ¼ OF SECTION 1, TOWNSHIP 1 NORTH, RANGE 2 EAST, MOUNT DIABLO BASE AND MERIDIAN.

7. EXISTING USE: VACANT

8. PROPOSED USE: RESIDENTIAL

9. EXISTING ZONING: R-1-12 (SINGLE FAMILY RESIDENTIAL)

10. PROPOSED ZONING: R-1-12 (SINGLE FAMILY RESIDENTIAL)

11. GENERAL PLAN LAND DESIGNATION: RESIDENTIAL VERY LOW DENSITY

12. GROSS AREA: 16.3± ACRES

13. DENSITY: SEE NOTE 21 BELOW

14. RESIDENTIAL LOT SIZES: 12,000-24,000± SF (13,700 SF AVERAGE)

15. TOTAL NUMBER OF LOTS: 40

16. TOTAL NUMBER OF UNITS: 36 (SEE NOTE 21 BELOW)

17. UTILITIES:
a. WATER: CITY OF BRENTWOOD
b. SANITARY SEWER: CITY OF BRENTWOOD
c. STORM DRAIN: CITY OF BRENTWOOD
d. GAS AND ELECTRIC: PACIFIC GAS AND ELECTRIC
e. TELEPHONE: AT&T
f. CABLE TV: COMCAST

18. TOPOGRAPHIC INFORMATION SHOWN IS BASED ON AERIAL SURVEY PREPARED IN NOVEMBER 2021.

19. THE PROPERTY IS WITHIN ZONE X-AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAIN AS SHOWN IN FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 06013C0354G, DATED MARCH 21, 2021.

20. IN COMPLIANCE WITH BEST MANAGEMENT PRACTICES FOR STORMWATER MANAGEMENT TO MINIMIZE POLLUTANTS FROM ENTERING INTO UNDERGROUND STORM DRAINS, SELF-RETAINING AND PERVIOUS PAVEMENT ARE PROPOSED TO TREAT STORMWATER RUNOFF.

21. NOT USED

22. PARCEL Z SHALL BE RESERVED FOR PARK DEDICATION IF ACCEPTED BY THE CITY. IF NOT ACCEPTED BY THE CITY, PROJECT SHALL SATISFY PARK DEDICATION REQUIREMENTS BY PAYMENT OF FEES-IN-LIEU IN ACCORDANCE WITH APPLICABLE BRENTWOOD MUNICIPAL CODE.

23. THE DEVELOPER RESERVES THE RIGHT TO FILE MULTIPLE FINALS MAPS AFTER TENTATIVE MAP APPROVAL.

REGISTERED PROFESSIONAL ENGINEER DOMINIC R. CARUCCI No. 85585 CIVIL STATE OF CALIFORNIA

SHEET INDEX

SHEET NO.	DESCRIPTION
TM1.0	TITLE SHEET
TM2.1	EXISTING CONDITION PLAN
TM2.2	EXISTING TREE DISPOSITION PLAN
TM2.3	ADJACENT ZONING, PARKS, AND NON-RESIDENT USES
TM3.1	PRELIMINARY LOTTING PLAN
TM4.1	LONE TREE WAY - FRONTAGE IMPROVEMENTS
TM5.1	PRELIMINARY GRADING AND DRAINAGE PLAN
TM6.1	PRELIMINARY UTILITY PLAN
TM7.1	PRELIMINARY STORMWATER TREATMENT PLAN

RJA
RUGGERI-JENSEN-AZAR
ENGINEERS • PLANNERS • SURVEYORS
4690 CHABOT DRIVE, SUITE 200 PLEASANTON, CA 94588
PHONE: (925) 227-9100 FAX: (925) 227-9300

DATE: OCTOBER 9, 2023
SUB NO. 9597
JOB NO. 211071
TM1.0

© S:\JOBS\211071\CAD FILES\SUB-PLANNING\TM\JOB\211071.DWG 10/10/2023 9:39:29 AM FARM SHAND

N

0 50 100
Feet

LONE TREE WAY RESIDENTIAL
BRENTWOOD, CONTRA COSTA

Figure 3. Site Plan

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

Sources: Contra Costa County GIS. Map date: October 11, 2023

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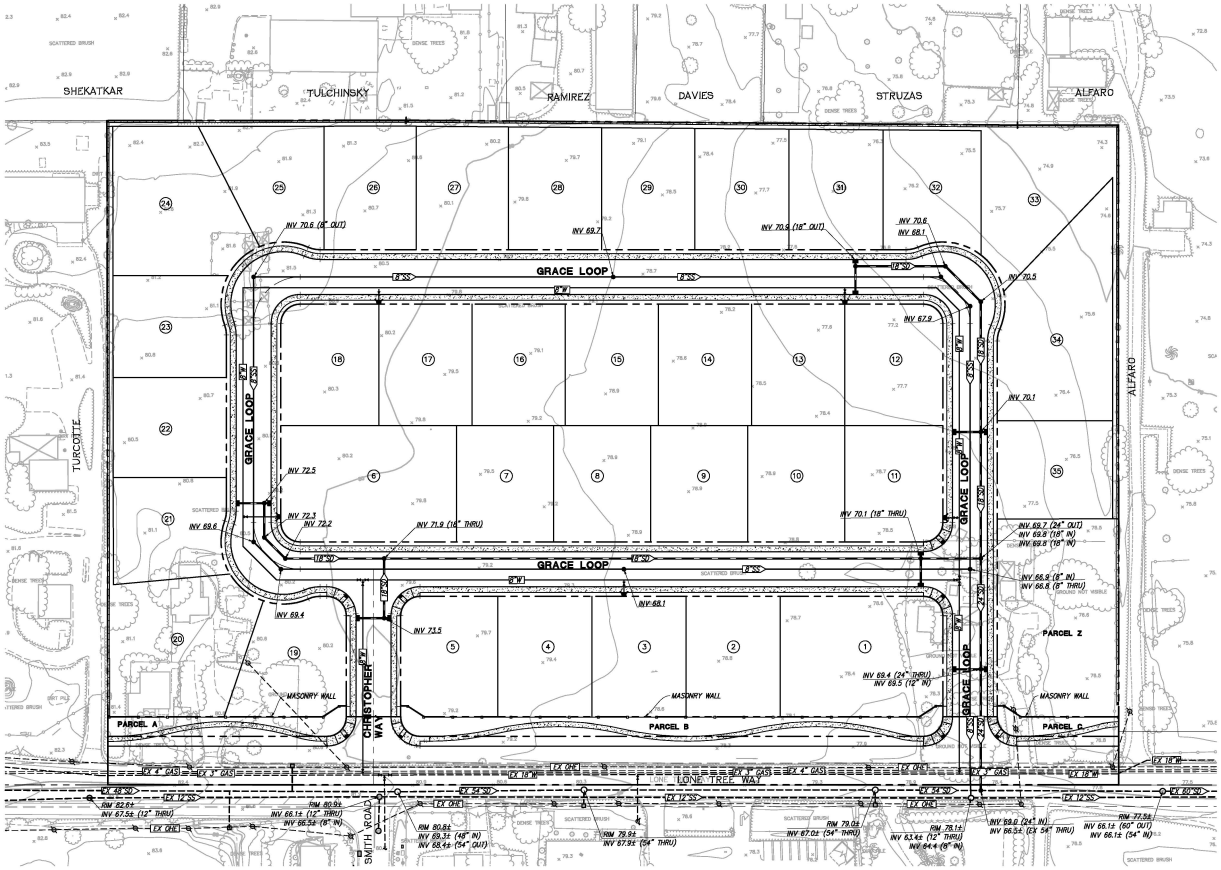

PRELIMINARY UTILITY PLAN

SUB 9597 - 7590 & 7650 LONE TREE WAY

CITY OF BRENTWOOD, CONTRA COSTA COUNTY, CALIFORNIA
FOR: SEECON FINANCIAL & CONSTRUCTION CO.

N

0 50 100 150
1 inch = 50 ft.

RJA
RUGGERI-JENSEN-AZAR
ENGINEERS • PLANNERS • SURVEYORS
4690 CHABOT DRIVE, SUITE 200 PLEASANTON, CA 94588
PHONE: (925) 227-9100 FAX: (925) 227-9300

DATE: JULY 15, 2022
SUB NO. 9597
JOB NO. 211071
TM6.1

E:\JOBS2021\211071\CAD FILES\D-PLANNING\TRV-MAP\TM6.DWG 7/15/2022 4:23:14 PM MIL BARTOLIN

N

0 50 100

Feet

LONE TREE WAY RESIDENTIAL
BRENTWOOD, CONTRA COSTA

Figure 4. Utility Plan

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

Sources: Contra Costa County GIS. Map date: October 11, 2023

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Agriculture and Forest Resources		Air Quality
	Biological Resources		Cultural Resources		Geology/Soils
	Greenhouse Gasses		Hazards and Hazardous Materials		Hydrology/Water Quality
	Land Use/Planning		Mineral Resources		Noise
	Population/Housing		Public Services		Recreation
	Transportation/Traffic		Utilities/Service Systems		Mandatory Findings of Significance

DETERMINATION:

On the basis of this initial evaluation:

	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature Date

EVALUATION INSTRUCTIONS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA provisions and processes, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a) Earlier Analysis Used. Identify and state where the analyses are available for review.
    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a

previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:
   a) The significance criteria or threshold, if any, used to evaluate each question; and
   b) The mitigation measure identified, if any, to reduce the impact to less than significance

EVALUATION OF ENVIRONMENTAL IMPACTS:

In each area of potential impact listed in this section, there are one or more questions which assess the degree of potential environmental effect. A response is provided to each question using one of the four impact evaluation criteria described below. A discussion of the response is also included.

- Potentially Significant Impact. This response is appropriate when there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries, upon completion of the Initial Study, an EIR is required.
- Less than Significant With Mitigation Incorporated. This response applies when the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact". The Lead Agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.
- Less than Significant Impact. A less than significant impact is one which is deemed to have little or no adverse effect on the environment. Mitigation measures are, therefore, not necessary, although they may be recommended to further reduce a minor impact.
- No Impact. These issues were either identified as having no impact on the environment, or they are not relevant to the Project.

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ENVIRONMENTAL CHECKLIST

This section of the Initial Study incorporates the most current Appendix "G" Environmental Checklist Form, contained in the CEQA Guidelines. Impact questions and responses are included in both tabular and narrative formats for each of the 18 environmental topic areas.

I. AESTHETICS

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		X		

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. The City of Brentwood is located in the eastern valley area of Contra Costa County, immediately east of the Diablo Range, which includes Mount Diablo. The City of Brentwood has recognized views of Mount Diablo as an important visual resource to be preserved (see Policy COS 7-3 of the Conservation and Open Space Element of the Brentwood General Plan).

According to the 2014 Brentwood General Plan Update EIR and the California Scenic Highway Mapping System, administered by Caltrans, the City of Brentwood does not contain officially designated State Scenic Highways.[1] However, it should be noted that the segment of State Route 4 (SR 4) located approximately 1.5 miles to the west of the project site is listed as an Eligible State Scenic Highway, but has not yet been officially designated. The project would not damage any scenic resources, such as trees, rock outcroppings, or historic buildings, within a State Scenic Highway, and is not a visible feature from the SR 4 corridor. Additionally, the project site is not designated as a scenic vista. The 2014 Brentwood General Plan Update EIR identifies SR 4 as a local scenic route due to the distant panoramic vistas of the Diablo Range and Mount Diablo in particular. Mount Diablo is located to the west of SR 4 and the proposed project is located to the

[1] City of Brentwood. *2014 Brentwood General Plan Update EIR* [pg. 3.1-5]. July 22, 2014.

east of SR 4, and close to the northern edge of the city. As a result, the project structures would not impede views of Mount Diablo currently afforded to travelers along SR 4, or impede views of Mount Diablo from residents residing in the City of Brentwood.

The proposed project would not remove trees, rock outcroppings, and historic buildings within a state scenic highway, and is not designated as a scenic vista. Therefore, this is considered a **less than significant** impact.

Response c): Less than Significant. While the project site is current vacant, it is located within an urbanized area. The development of the site would change the existing visual setting from mostly vacant land, (with some existing structures) to a suburban-scale residential setting consisting of single family residential units. In addition, the proposed project is consistent with (R-VLD) land uses identified in the City's General Plan and General Plan Land Use Map. Implementation of the proposed project would alter the visual appearance on the project site through the removal of a limited number of trees and the existing structures. The proposed project would be visually consistent with the surrounding land uses. Additionally, the proposed project is identified for urban land uses in the Brentwood General Plan. The proposed project is consistent with the overriding considerations that were adopted for the General Plan. As such, implementation of the proposed project would not create new impacts over and above those identified in the General Plan Final EIR nor significantly change previously identified impacts.

The final project design would be approved by the City through its design review process. Through this process the Planning Commission would ensure the design meets the criteria set forth in Municipal Code Section 17.820.007. As a result, development of the project site would result in a **less than significant** impact with respect to substantially degrading the existing visual character or quality of the site and its surroundings.

Response d): Less than Significant with Mitigation. The project site contains a few existing structures in the southwest and southeast of the project site, which generate some permanent light sources. However, the project site is mostly vacant and generates minimal light or glare. The change from a mostly vacant property to a residential development including single family residences and associated street lighting would generate new permanent sources of light and glare. The project site is adjacent to single family residences to the east, south, west, and north, as well as a K-9 training center to the north, and a Muslim community center to the south. The structures located in the immediate vicinity of the site would be considered sensitive receptors, which could be adversely affected by additional sources of light and glare. However, the project would not include reflective building materials, and vehicle headlight glare would not be exacerbated, given the existing level of traffic on Lone Tree Way, and landscaping and fencing that would contain project vehicle light sources. However, street and safety lighting located along the project streets may be visible from surrounding locations. Therefore, the increase in light produced by the proposed project would be considered potentially significant.

Implementation of Mitigation Measure AES-1 would reduce the potential impacts related to light and glare to **less than significant**.

Mitigation Measure(s)

Mitigation Measure AES-1*: In conjunction with development of the proposed project, the developer shall shield all on-site lighting so that nighttime lighting is directed within the project site and does not illuminate adjacent properties. A detailed lighting plan shall be submitted for the review and approval by the Community Development Department and the Public Works Department in conjunction with the project improvement plans. The lighting plan shall indicate the locations and design of the shielded light fixtures.*

II. AGRICULTURE AND FOREST RESOURCES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), or timberland (as defined in Public Resources Code section 4526), or timberland zoned Timberland Production as defined by Government Code section 51104(g)?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

RESPONSES TO CHECKLIST QUESTIONS

Responses a): No impact. The approximately 16.3-acre project site contained past agricultural operations that have since ceased. Figure 3.2-1 of the City of Brentwood General Plan EIR identifies the project site, as mapped by the USDA, as "Other Land." The proposed project does not involve any conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. Therefore, implementation of the proposed Project would have ***no impact*** relative to this issue.

Response b): No Impact. The project site is not under Williamson Act contract, nor is the site zoned for agricultural use. The current land use designation for the project site is Residential Very Low Density. Therefore, the project would have no impact with respect to conflicting with agricultural zoning or Williamson Act contracts**.** There is **no impact.**

Responses c) and d): No Impact. The project site is not considered forest land (as defined in Public Resources Code section 12220[g]), or timberland (as defined by Public Resources Code section 4526), and is not zoned Timberland Production (as defined by Government Code section 51104[g]). Therefore, the proposed project would have no impact with regard to conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning. Therefore, there is **no impact**.

Responses e): No impact. The project site does not contain forest land, and there is no forest land in the vicinity of the project site. The proposed project does not involve any other changes in the existing environment not disclosed under the previous responses which, due to their location or nature, could result in conversion of farmland, to non-agricultural use, or conversion of forest land to non-forest use. Therefore, implementation of the proposed project would have ***no impact*** relative to this issue.

III. AIR QUALITY

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
b) Result in 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?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?		X		
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

EXISTING SETTING

The project site is located within the boundaries of the Bay Area Air Quality Management District (BAAQMD). This agency is responsible for monitoring air pollution levels and ensuring compliance with federal and state air quality regulations within the San Francisco Bay Area Air Basin (SFBAAB) and has jurisdiction over most air quality matters within its borders.

RESPONSES TO CHECKLIST QUESTIONS

Response a): No Impact. The SFBAAB is currently designated as a nonattainment area for State and federal ozone, State and federal particulate matter 2.5 microns in diameter ($PM_{2.5}$), and State particulate matter 10 microns in diameter (PM_{10}) standards. The BAAQMD, in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG), prepared the 2005 Ozone Strategy, which is a roadmap depicting how the Bay Area will achieve compliance with the State one-hour air quality standard for ozone as expeditiously as practicable and how the region will reduce transport of ozone and ozone precursors to neighboring air basins. The most recent State ozone plan is the 2017 Clean Air Plan (CAP), adopted on April 19, 2017. The 2017 CAP was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although the California Clean Air Act does not require the region to submit a plan for achieving the State PM_{10} standard, the 2005 Ozone Strategy and 2017 CAP are expected to also reduce PM_{10} emissions. In addition, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2017 CAP. The control strategy serves as the backbone of the BAAQMD's current PM control program. To fulfill federal air quality planning requirements, the BAAQMD adopted a $PM_{2.5}$ emissions inventory for year 2010, which was submitted to the U.S. Environmental Protection Agency (USEPA) on January 14, 2013 for inclusion in the State Implementation Plan (SIP).

The current plan in place to achieve progress toward attainment of the federal ozone standards is the *Revised San Francisco Bay Area Ozone Attainment Plan for the 1-Hour National Ozone*

Standard. The USEPA recently revoked the 1-hour federal ozone standard; however, the region is designated nonattainment for the new 8-hour standard that replaced the older one-hour standard. Until the region either adopts an approved attainment plan or attains the standard and adopts a maintenance plan, the *Revised San Francisco Bay Area Ozone Attainment Plan for the 1-Hour National Ozone Standard* remains the currently applicable federally-approved plan.

The aforementioned applicable air quality plans contain mobile source controls, stationary source controls, and transportation control measures (TCMs) to be implemented in the region to attain the State and federal ozone standards within the SFBAAB. The plans are based on population and employment projections provided by local governments, usually developed as part of the General Plan update process. The proposed project would be considered to conflict with, or obstruct implementation of, an applicable air quality plan if the project would be inconsistent with the Ozone Attainment Plan's growth assumptions, in terms of population, employment, or regional growth in Vehicle Miles Traveled (VMT). The growth assumptions are based on ABAG projections that are, in turn, based on the City's General Plan. The proposed project site was designated for Residential Very Low Density uses in the Brentwood General Plan in effect at the time ABAG projections were forecast. The proposed project is consistent with the General Plan land use designation; therefore, the project would be considered consistent with the growth assumptions of the applicable air quality plans. As a result, the proposed project would not conflict with or obstruct implementation of the applicable air quality plans. There is **no impact** relative to this topic.

Responses b): Less than Significant. Air pollutant emissions related to the proposed project would include both construction phase emissions and, upon project buildout, operational emissions (such as from vehicle trips generated by the proposed project). Construction phase emissions would originate from mobile and stationary construction equipment exhaust, employee vehicle exhaust, dust from clearing and grading activities, wind-borne dust generated from exposed soils, and off-gassing from asphalt paving and painting. Construction-related emissions can vary substantially depending on the level of activity, length of the construction period, specific construction operations, types of equipment, number of personnel, wind and precipitation conditions, and soil moisture content. Operational air pollutant emissions of the proposed project would be generated by electricity use for the night lighting at the project site, and visitor vehicle exhaust. Both construction and operation of the proposed project would result in the generation of emissions of carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxide (NOx), and particulate matter (PM_{10}). Emissions of ROG and NOx are referred to as "precursors" to ozone formation. These two pollutants, when released into the atmosphere, undergo photochemical reactions in the presence of sunlight to form ozone. These ozone-forming photochemical reactions do not occur as readily in the cooler months of the year, and therefore, emissions of ROG and NOx are of greatest concern during the warmer months of summer.

According to the CEQA Guidelines, an air quality impact may be considered significant if the proposed project's implementation would result in, or potentially result in, conditions, which violate any existing local, State or federal air quality regulations. In order to evaluate ozone and other criteria air pollutant emissions and support attainment goals for those pollutants

designated as nonattainment in the area, the BAAQMD has established significance thresholds associated with development projects for emissions of reactive organic gases (ROG), nitrogen oxide (NOx), PM_{10}, and $PM_{2.5}$. The BAAQMD's significance thresholds, expressed in pounds per day (lbs/day) for project-level and tons per year (tons/yr) for cumulative, listed in Table 1, are recommended for use in the evaluation of air quality impacts associated with proposed development projects.

Table 1: BAAQMD Thresholds of Significance

Pollutant	Construction Average Daily Emissions (lbs/day)	Operational Average Daily Emissions (lbs/day)	Cumulative Maximum Annual Emissions (tons/year)
ROG	54	54	10
NOx	54	54	10
PM_{10}	82	82	15
$PM_{2.5}$	54	54	10

Source: BAAQMD, CEQA Guidelines, May 2017.

In addition, the BAAQMD identifies screening criteria for development projects, which provide a conservative indication of whether a development could result in potentially significant air quality impacts. If the screening criteria are exceeded by a project, a detailed air quality assessment of that project's air pollutant emissions would be required. The project is made up of single-family residences. The screening criteria for a single-family residential development are if the development is less than or equal to the following screening level sizes:

- 325 dwelling units for operational criteria pollutants;
- 56 dwelling units for operational greenhouse gas (GHG) (addressed in Section VIII); or
- 114 dwelling units for construction criteria pollutants.

Accordingly, if a single-family development is less than or equal to the screening size for operational or construction criteria pollutants, or for operational GHG, the development would not be expected to result in potentially significant air quality impacts, and a detailed air quality assessment would not be required.

Per CEQA Guidelines Section 15064.7, the City has elected to use the BAAQMD's thresholds of significance and methodology for assessing the significance of impacts relating to criteria pollutants for this project, as they are based on substantial evidence and remain the most up-to-date, scientifically-based method available to evaluate air quality impacts. Thus, the BAAQMD's thresholds of significance presented in Table 1, and the screening criteria, are utilized for this analysis.

Implementation of the proposed project would contribute local emissions in the area during both the construction and operation of the proposed project. As the proposed project involves the development of 36 dwelling units, the project does not exceed the screening criteria for operational or construction-related criteria pollutants resulting from a single-family residential development. As such, the proposed project would not be expected to result in potentially significant operational or construction-related air quality impacts.

As discussed previously, the proposed project falls under the screening criteria for operational and construction criteria air pollutants and precursors. BAAQMD has determined that if the project meets the screening criteria, the project would not result in the generation of operational-related criteria air pollutants and/or precursors that exceed the Thresholds of Significance. Therefore, implementation of the proposed project would result in a **less-than-significant** impact to air quality from criteria air pollutant and precursor emissions.

It should be noted that the project is required to comply with all BAAQMD rules and regulations for construction, including implementation of the BAAQMD's recommended Basic Construction Mitigation Measures. The Basic Construction Mitigation Measures include, but are not limited to, watering exposed surfaces, covering all haul truck loads, removing all visible mud or dirt track-out, limiting vehicle speeds on unpaved roads, and minimizing idling time.

Response c): Less than Significant with Mitigation. Emissions of carbon monoxide (CO) are of potential concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline or wood. CO emissions are particularly related to traffic levels.

In addition to screening criteria for criteria pollutants and GHG, BAAQMD has established screening criteria for localized CO emissions, including the following:

- Consistency with applicable congestion management programs;
- Increases in traffic volumes at intersections to more than 44,000 vehicles per hour; or
- Increases in traffic volumes at intersections to more than 24,000 vehicles per hour due to project-generated traffic where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.).

As the City has elected to use the BAAQMD's thresholds and methodology for this project, the BAAQMD's screening criteria for localized CO emissions presented above are utilized for this analysis.

A General Plan amendment is not required for the proposed project. The proposed density (approximately 2.1 dwelling units per acre) is consistent with the General Plan designation for the site (1.1-3.0 dwelling units per acre). As such, the project would be considered consistent with the growth assumptions of the General Plan. Subsequently, the project would result in similar mobile source emissions as currently anticipated for the site. In addition, none of the affected intersections currently experience traffic volumes of 44,000 vehicles per hour (or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited), and the project would not increase traffic volumes to greater than 44,000 vehicles per hour at any affected intersections (or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited). Therefore, according to the BAAQMD screening criteria above, the proposed project would not be expected to result in substantial increase in levels of CO at surrounding intersections, and the project would not generate or be subjected to localized concentrations of CO in excess of applicable standards.

Toxic Air Contaminants (TACs) are also a category of environmental concern. The California Air Resources Board's (CARB) *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommendations for siting new sensitive land uses near sources typically associated with significant levels of TAC emissions, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks from TACs are a function of both the concentration of emissions and the duration of exposure. Health-related risks associated with DPM in particular are primarily associated with long-term exposure and associated risk of contracting cancer.

Children, pregnant women, the elderly, and those with existing health problems are considered more sensitive to air pollution than others. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, day care centers, playgrounds, and medical facilities. The proposed project includes the development of single-family residences, the occupants of which would be considered sensitive receptors. Additionally, surrounding single family residences located south, east, west, and north of the project site would also be considered sensitive receptors, as well as the Muslim community center to the south. The CARB, per its Handbook, considers that any project placing sensitive receptors within 500 feet of a major roadway or freeway may have the potential to expose those receptors to DPM. Similarly, the BAAQMD recommends placement of overlay zones at least 500 feet from all freeways and high volume roadways. The nearest freeway, SR 4, is located approximately 7,600 feet to the west of the project site. Therefore, the project site is not located within 500 feet of any freeway or high volume roadway, and would not be subjected to substantial concentrations of DPM associated with roadways.

The project does not involve long-term operation of any stationary diesel engine or other major on-site stationary source of TACs. Relatively few vehicle trips associated with operations of the proposed use would be expected to be composed of diesel-fueled vehicles. Therefore, the project would not generate any substantial concentrations of TACs during operations. Construction activities have the potential to generate DPM emissions related to the number and types of equipment typically associated with construction. Off-road heavy- duty diesel equipment used for site grading, paving, and other construction activities result in the generation of DPM. The residences located north and west of the project site would be considered the nearest existing sensitive receptor to the project site and could become exposed to DPM emissions from the site during construction activities. However, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. In addition, only portions of the site would be disturbed at a time during buildout of the proposed project, with operation of construction equipment regulated and occurring intermittently throughout the course of a day. Thus, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM for any extended period of time would be very low. Because health risks associated with exposure to DPM or any TAC are correlated with high concentrations over a long period of exposure (e.g., over a 70-year lifetime), the temporary, intermittent construction-

related DPM emissions would not be expected to cause any health risks to nearby sensitive receptors. Thus, construction of the proposed project would not expose any nearby existing sensitive receptors to any short-term substantial concentrations of TACs.

The City of Brentwood was previously advised of two serious cases of Valley Fever contracted during an archeological excavation near the southern City limit boundary. Valley Fever is an infection caused by inhalation of the spores of the *Coccidioides immitis fungus*, which grows in soils and are released during earthmoving. The fungus is very prevalent in the soils of California's San Joaquin Valley. The ecological factors that appear to be most conducive to survival and replication of the spores are high summer temperature, mild winters, sparse rainfall, and alkaline, sandy soils. Earth moving during development of the project site could put nearby residents at a greater risk of exposure to Valley Fever; however, because fungus spores need to become airborne in order to enter the respiratory tract of humans, and landscaping, building pads, and streets associated with the development would eliminate most fugitive dust, the threat is more serious for construction workers than for nearby residents. Residents living in close proximity to the project site during construction may be at risk of being exposed to the disease due to proximity and a relatively lower immunity. As a result, measures should be taken to reduce the potential for exposure of the disease during construction to both construction workers and nearby receptors. These include measures to control dust through construction site irrigation, soil stabilizers and landscaping. Paving roads, planting grass, and other measures that reduce dust where people live, work, or engage in recreation have been shown to reduce the incidence of infection. Sufficient wetting of the soil prior to grading activities can reduce exposure to airborne spores of the fungus.

Development of the project site could potentially expose construction workers and nearby residents to fungus spores that cause Valley Fever. Grading activities associated with development have the potential to release the fungus into the air, increasing the risk of infection to the surrounding population. Implementation of the project may result in human health impacts due to exposure to fungus spores which cause Valley Fever.

The project will minimize the generation of fugitive dust during construction activities by complying with the dust management BMP's set forth in Mitigation Measure AIR-1. Additionally, as described in Mitigation Measure AIR-2, to the extent feasible, construction employees would be hired from local populations to reduce the chance of spreading Valley Fever. Mitigation Measures AIR-3 and AIR-4 would further reduce the potential for dust to spread during project construction activities.

In conclusion, with the implementation of the following mitigations measures, the proposed project would not expose sensitive receptors to substantial concentrations of any TACs or fungus spores which cause Valley Fever after mitigation. Therefore, impacts related to exposure of sensitive receptors to substantial pollutant concentrations would be considered **less than significant with mitigation**.

Mitigation Measure(s)

Mitigation Measure AIR-1*: Prior to the issuance of a grading permit, the Applicant/Developer shall prepare an Erosion Prevention and Dust Control Plan. The plan shall be followed by the project's grading contractor and submitted to the Public Works Department, which will be responsible for field verification of the plan during construction.*

The plan shall comply with the City's grading ordinance and shall include the following control measures and other measures as determined by the Public Works Department to be necessary for the proposed project:

- *Cover all trucks hauling construction and demolition debris from the site;*
- *Water all exposed or disturbed soil surfaces at least twice daily;*
- *Use watering to control dust generation during demolition of structures or break-up of pavement;*
- *Pave, apply water three time daily, or apply (non-toxic) soil stabilizers on all unpaved parking areas and staging areas;*
- *Sweep daily (with water sweepers) all paved parking areas and staging areas;*
- *Provide daily clean-up of mud and dirt carried onto paved streets from the site;*
- *Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.);*
- *Limit traffic speeds on unpaved roads to 15 mph;*
- *Install sandbags or other erosion control measures to prevent silt runoff to public roadways;*
- *Replant vegetation in disturbed areas as quickly as possible;*
- *Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site;*
- *Install wind breaks, or plant trees/vegetative wind breaks at windward side(s) or construction areas;*
- *Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph, and/or implement dust monitoring/sampling to ensure that background dust levels are not exceeded due to grading;*
- *Limit the area subject to excavation, grading, and other construction activity at any one time;*
- *Unnecessary idling of construction equipment shall be avoided;*
- *Equipment engines shall be maintained in proper working condition per manufacturers' specifications;*
- *During periods of heavier air pollution (May to October), the construction period shall be lengthened to minimize the amount of equipment operating at one time;*
- *Where feasible, the construction equipment shall use cleaner fuels, add-on control devices and conversion to cleaner engines.*

Mitigation Measure AIR-2*: To the extent feasible, construction employees shall be hired from local populations, since it is more likely that they have been previously exposed to the fungus which causes Valley Fever and are therefore immune.*

Mitigation Measure AIR-3*: During periods of high dust in the grading phase, crews must use National Institute for Occupational Safety and Health (NIOSH) approved N95 masks or better or other more stringent measures in accordance with the California Division of Occupational Safety and Health regulations.*

Mitigation Measure AIR-4*: The operator cab of area grading and construction equipment must be enclosed and air-conditioned.*

Response d): Less than Significant. According to the CARB's Handbook, some of the most common sources of odor complaints received by local air districts are sewage treatment plants, landfills, recycling facilities, waste transfer stations, petroleum refineries, biomass operations, autobody shops, coating operations, fiberglass manufacturing, foundries, rendering plants, and livestock operations. The proposed project site is located around developed areas and is surrounded by residential land uses that are generally not associated with objectionable odors. Accordingly, the proposed project is not located in the vicinity of any substantial objectionable odor sources such as those mentioned above.

Operation of the proposed project would not generate notable odors. The proposed project is a residential development, which is compatible with the surrounding land uses. Residential land uses are not typically associated with the creation of substantial objectionable odors. Occasional mild odors may be generated during landscaping maintenance (equipment exhaust), but the project would not otherwise generate odors.

The proposed project is not anticipated to produce any objectionable odors (or other emissions) at buildout that would affect a substantial number of people. Construction activities associated with the proposed project, such as paving and painting are likely to temporarily generate objectionable odors. Since odor-generating construction activities would be temporary, and are only likely to be detected by residents closest to the project site, impacts from temporary project-related odors are expected to be **less than significant** and no mitigation is required.

IV. BIOLOGICAL RESOURCES

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?			X	
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		X		
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?		X		

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant with Mitigation. Currently, the site is mostly vacant, with existing residential buildings located in the southwest and southeast portion of the project site, scattered debris, and vegetated with ruderal grassland vegetation that appears to be periodically mowed and/or disked. There are 90 trees located within the project site, as described in the Arborist Report (June 9, 2022) prepared for the proposed project by Jennifer Tso.

The project site is located within the boundaries of the *East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan* (ECCCHCP/NCCP), which provides a framework to protect the natural resources of eastern Contra Costa. The ECCHCP/NCCP streamlines the environmental permitting process for impacts on endangered species and requires the payment of a Development Fee to mitigate impacts to covered species. The project site is located within Fee Zone 1 of the Fee Payment Zones within the ECCCHCP/NCCP. According to the project's Planning Survey Report (see Appendix A), the 16.3-acre project site consists of

13.2 acres classified as ruderal and 3.1 acres as Urban. As per the ECCCHCP/NCCP, the proposed project would be subject to payment of all applicable fees prior to construction.

Special Status Plant Species

The California annual grassland series (Sawyer and Keeler-Wolf, 1995) best describes this highly disturbed upland grassland vegetation on-site. The CNDDB and USFWS Species List included eight plant species that have previously been documented in the greater project vicinity, including big tarplant (*Blepharizonia plumosa ssp. plumosa*), Congdon's tarplant (*Centromadia parryi spp. congdonii*), Bolander's water hemlock (*Cicuta maculata var. bolanderi*), San Joaquin spearscale (*Extriplex joaquiniana*), Brewers western flax (*Hesperolinon breweri)*, Antioch dunes evening primrose (*Oenothera deltoides ssp. howellii*), Suisun marsh aster (*Symphotrichum lentum*), and caper-fruited tropidocarpum (*Tropidocarpum capparideum*). Antioch dunes evening primrose is the only special-status plant species noted on the USFWS IPaC Trust Report.

Special-status plants generally occur in relatively undisturbed areas in vegetation communities such as, vernal pools, marches and swamps, seasonal wetlands, riparian scrub, and areas with unusual soils. All of the plants identified occur in unique habitat types that are not present on-site. The site consists of disturbed ruderal grassland vegetation that is routinely mowed and/or disked; the grasslands in the site do not provide suitable for any special-status plant species. Due to lack of suitable habitat, it is very unlikely that special-status plants occur in the project site. Therefore, the project is not expected to impact any covered or no-take plants.

Special Status Wildlife Species

While the project site may have provided habitat for special-status wildlife species at some time in the past, farming and development have substantially modified natural habitats in the greater project vicinity, including in the site. A few special-status birds including tricolored blackbird, white-tailed kite, and loggerhead shrike may fly over the area on occasion or forage in the grasslands in the project site, but it is unlikely they nest in or immediately adjacent to the project site. Additionally, while the site provides potentially suitable habitat for San Joaquin kit fox, the project site is outside (i.e., northwest) of the range of this species and it is unlikely that kit fox would occur in a site that is surrounded by residential development. The project site does not provide the mosaic of scrub, chaparral, grassland, and woodland habitats required by Alameda whipsnake; the ruderal and highly disturbed grasslands in the site also do not provide suitable habitat for northern California legless lizard. There are no vernal pools or seasonal wetlands in the site for vernal pool branchiopods (i.e., fairy and tadpole shrimp). There is no coastal scrub habitat in the site for San Bruno elfin butterfly. Finally, the project site does not contain the abundant floristic resources required by western bumble bee.

Western burrowing owl, Swainson's hawk, and golden eagle are the only species with potential to occur in the site on more than a transitory or very occasional basis and are discussed further below.

Western Burrowing Owl: The Migratory Bird Treaty Act (MBTA) and Fish and Game Code of California protect western burrowing owls year-round, as well as their nests during the nesting season (February 1 through August 31). Western burrowing owls are a year-long resident in a

variety of grasslands as well as scrub lands that have a low density of trees and shrubs with low growing vegetation. The project site is within the range of western burrowing owl (Athene cunnicularia). CDFW's CNDDB contains several occurrences of western burrowing owl within a mile of the site. The primary habitat requirement of western burrowing owl is small mammal burrows for nesting. Usually, western burrowing owls nest in abandoned ground squirrel burrows, although the owls have been known to dig their own burrows in softer soils. The proposed project's Planning Survey Report describes that the project site was inspected for burrowing owls and ground squirrel burrows; no burrowing or ground squirrel burrows were observed within the project site (see Appendix A for further detail). Nevertheless, this species could occur in the site in the future if burrow habitat becomes available. Mitigation Measure BIO-1 would ensure that any potential impacts to western burrowing owls is reduced to a **less than significant** level.

Swainson's Hawk: The Swainson's hawk is a migratory hawk listed by the State of California as a Threatened species. The MBTA and Fish and Game Code of California protect Swainson's hawks year-round, as well as their nests during the nesting season (March 1 through September 15). Swainson's hawk are found in the Central Valley primarily during their breeding season, with a population known to winter in the San Joaquin Valley.

Swainson's hawks prefer nesting sites that provide sweeping views of nearby foraging grounds consisting of grasslands, irrigated pasture, hay, and wheat crops. The grasslands in the site provide suitable foraging habitat for Swainson's hawk. Additionally, some of the existing trees located within the project site have the potential to be used for nesting by Swainson's hawk.

There are a few records of nesting Swainson's hawks within a few miles of the site, though outside of 1,000 feet buffer from the project site. The Planning Survey Report prepared for the proposed project identified 71 trees within the project site that are potentially suitable for nesting birds, although most of the on-site trees are unlikely to be used by nesting hawks of any species, due to the tree's small sizes. The Planning Survey Report also identified several potential nesting trees near and visible from the project site. Trees within the project site and visible from the project site were inspected for raptor stick nests. No Swainson's hawks were observed during the field survey. Nevertheless, the proposed project would be required to implement standard avoidance and minimization measures under the ECCCHCP, as required by Mitigation Measure BIO-2. Implementation of Mitigation Measure BIO-1 would ensure that any potential impacts to Swainson's hawks are reduced to a **less than significant** level.

Golden Eagles: As described within the Planning Survey Report prepared for the proposed project, the project site contains ruderal grassland and is within the range of golden eagles (*Aquila chysaetos*). CDFW's CNDDB contains no occurrences of golden eagle within the 0.5 miles of the project site or within the larger geographical area. There are 71 trees within the project site that are potentially suitable nesting habitat for golden eagles, although most of the on-site trees are unlikely to be used for nesting raptors of any species, due to their small sizes. There are several potential nest trees near and visible from the project site. Trees within the project site and visible from the project site were inspected for raptor stick nests and none were observed. No golden eagles were observed; this species nests more often on cliffs in remote natural areas,

rather than in trees near urban areas. However, construction activities that adversely affect the nesting success of golden eagles (i.e., lead to the abandonment of active nests) or result in mortality of individual birds constitute a violation of State and federal laws. Therefore, Mitigation Measure BIO-3 would ensure that any potential impact is reduced to a **less than significant level.**

Conclusion

Due to the disturbed nature of the project site's ruderal annual grassland cover type, suitable habitat does not exist to support special-status plant species known to occur within the annual grassland cover type of East Contra Costa County. While the presence of special-status wildlife species is relatively unlikely, based upon the current land cover types found on-site, in accordance with the ECCCHCP, wildlife species surveys are required to determine whether any special-status wildlife species are occupying the project site prior to initiating on-site ground disturbance and vegetation removal. If the necessary preconstruction surveys are not carried out, the project could result in a potentially significant adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the U.S. Fish and Wildlife Service (USFWS), or the California Department of Fish and Wildlife (CDFW). The following mitigation measures would reduce the above-stated special-status wildlife impacts to a **less than significant** level.

Mitigation Measure(s)

Mitigation Measure BIO-1: *Prior to any ground disturbance related to activities covered under the ECCCHCP/NCCP, the project applicant will need to comply with the required species-specific avoidance and minimization requirements for Western Burrowing Owl, as follows:*

Preconstruction Surveys

Prior to any ground disturbance related to covered activities, the project proponent shall hire a USFWS/CDFW-approved biologist to conduct a preconstruction survey in areas identified in the planning surveys as having potential burrowing owl habitat. The surveys will establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines (California Department of Fish and Game 1995).

On the parcel where the activity is proposed, the biologist shall survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership will not be surveyed. Surveys should take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls will be identified and mapped. Surveys will take place no more than 30 days prior to construction. During the breeding season (February 1– August 31), surveys will document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1–January 31), surveys will document whether burrowing owls are using habitat in or

directly adjacent to any disturbance area. Survey results will be valid only for the season (breeding or nonbreeding) during which the survey is conducted.

Avoidance and Minimization and Construction Monitoring

If burrowing owls are found during the breeding season (February 1 – August 31), the project proponent shall avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance will include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 – January 31), the project proponent shall avoid the owls and the burrows they are using, if possible. Avoidance will include the establishment of a buffer zone (described below).

During the breeding season, buffer zones of at least 250 feet in which no construction activities can occur will be established around each occupied burrow (nest site). Buffer zones of 160 feet will be established around each burrow being used during the nonbreeding season. The buffers will be delineated by highly visible, temporary construction fencing.

If occupied burrows for burrowing owls are not avoided, passive relocation shall be implemented. Owls shall be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors shall be in place for 48 hours prior to excavation. The project area shall be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation. Plastic tubing or a similar structure shall be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

Mitigation Measure BIO-2: *Prior to any ground disturbance related to activities covered under the ECCCHCP/NCCP, the project applicant will need to comply with the required species-specific avoidance and minimization requirements for Swainson's Hawk, as follows:*

Preconstruction Survey

Prior to any ground disturbance related to covered activities that occurs during the nesting season (March 15–September 15), the project proponent shall hire a qualified biologist to conduct a preconstruction survey no more than 1 month prior to construction to establish whether Swainson's hawk nests within 1,000 feet of the project site are occupied. If potentially occupied nests within 1,000 feet are off the project site, then their occupancy shall be determined by observation from public roads or by observations of Swainson's hawk activity (e.g., foraging) near the project site. If nests are occupied, minimization measures and construction monitoring are required (see below).

Avoidance and Minimization and Construction Monitoring

During the nesting season (March 15–September 15), covered activities within 1,000 feet of occupied nests or nests under construction will be prohibited to prevent nest abandonment. If site-

specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be used, the Implementing Entity shall coordinate with CDFW/USFWS to determine the appropriate buffer size.

If young fledge prior to September 15, covered activities can proceed normally. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant can apply to the Implementing Entity for a waiver of this avoidance measure. Any waiver must also be approved by USFWS and CDFW. While the nest is occupied, activities outside the buffer can take place.

All active nest trees shall be preserved on site, if feasible. Nest trees, including non-native trees, lost to covered activities shall be mitigated by the project proponent according to the requirements below.

<u>Mitigation for Loss of Nest Trees</u>

The loss of non-riparian Swainson's hawk nest trees shall be mitigated by the project proponent by:

- *If feasible on-site, planting 15 saplings for every tree lost with the objective of having at least 5 mature trees established for every tree lost according to the requirements listed below.*

  AND either

  1) Pay the Implementing Entity an additional fee to purchase, plant, maintain, and monitor 15 saplings on the HCP/NCCP Preserve System for every tree lost according to the requirements listed below, OR

  2) The project proponent shall plant, maintain, and monitor 15 saplings for every tree lost at a site to be approved by the Implementing Entity (e.g., within an HCP/NCCP Preserve or existing open space linked to HCP/NCCP preserves), according to the requirements listed below.

The following requirements shall be met for all planting options:

- *Tree survival shall be monitored at least annually for 5 years, then every other year until year 12. All trees lost during the first 5 years shall be replaced. Success will be reached at the end of 12 years if at least 5 trees per tree lost survive without supplemental irrigation or protection from herbivory. Trees must also survive for at least three years without irrigation.*
- *Irrigation and fencing to protect from deer and other herbivores may be needed for the first several years to ensure maximum tree survival.*
- *Native trees suitable for this site shall be planted. When site conditions permit, a variety of native trees shall be planted for each tree lost to provide trees with different growth rates, maturation, and life span, and to provide a variety of tree canopy structures for Swainson's hawk. This variety will help to ensure that nest trees will be available in the short term (5-*

10 years for cottonwoods and willows) and in the long term (e.g., Valley oak, sycamore). This will also minimize the temporal loss of nest trees.

- *Riparian woodland restoration conducted as a result of covered activities (i.e., loss of riparian woodland) can be used to offset the nest tree planting requirement above, if the nest trees are riparian species.*
- *Whenever feasible and when site conditions permit, trees should be planted in clumps together or with existing trees to provide larger areas of suitable nesting habitat and to create a natural buffer between nest trees and adjacent development (if plantings occur on the development site).*
- *Whenever feasible, plantings on the site shall occur closest to suitable foraging habitat outside the UDA.*
- *Trees planted in the HCP/NCCP preserves or other approved offsite location shall occur within the known range of Swainson's hawk in the inventory area and as close as possible to high-quality foraging habitat.*

Mitigation Measure BIO-3: *Prior to any ground disturbance related to activities covered under the ECCCHCP/NCCP, the project applicant will need to comply with the required species-specific avoidance and minimization requirements for Golden Eagle, as follows:*

Preconstruction Survey

Prior to implementation of covered activities, the project proponent shall hire a qualified biologist to conduct a preconstruction survey to establish whether nests of golden eagles are occupied (see Section 6.3.1, Planning Surveys). If nests are occupied, minimization requirements and construction monitoring shall be required.

Avoidance and Minimization

Covered activities shall follow the protocols as provided under the ECCCHCP/NCCP.

Responses b), c): Less than Significant. Riparian habitats are described as the land and vegetation that is situated along the bank of a stream or river. Wetlands are areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year. Wetlands usually must possess hydrophytic vegetation (i.e., plants adapted to inundated or saturated conditions), wetland hydrology (e.g., topographic low areas, exposed water tables, stream channels), and hydric soils (i.e., soils that are periodically or permanently saturated, inundated or flooded). Vernal pools are seasonal depressional wetlands that are covered by shallow water for variable periods from winter to spring, but may be completely dry for most of the summer and fall. Vernal pools range in size from small puddles to shallow lakes and are usually found in a gently sloping plain of grassland.

There is no riparian habitat, wetlands, or vernal pools located within or near to the project site. Therefore, implementation of the project would have a **less than significant** impact relative to any riparian habitat, seasonal wetlands, or vernal pools as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means.

Responses d): Less than Significant. Given that the project site provides limited habitat due to previous cultivation and construction of the project would have no effect on the suitability of delta waterways for delta smelt, impacts related to the movement of any resident or migratory wildlife species or with established resident or migratory wildlife corridors, or impeding the use of wildlife nursery sites are considered **less than significant**.

Responses e): Less than Significant with Mitigation. The City of Brentwood has not adopted a tree preservation ordinance that would govern the project site; however, the City of Brentwood General Plan Policy COS 1-9 encourages the protection and incorporation of existing, native, mature, non-orchard trees as part of new developments.

As described in the Arborist Report (June 9, 2022) prepared for the proposed project by Jennifer Tso, Certified Arborist, there are a total of 90 trees located within the project site. The trees are located primarily in the southwest and southeast of the project site. The on-site trees include Northern California Black Walnut (*Juglans hindsii*), Siberian Elm (*Ulmus pumila*), Fremont Cottonwood (*Populus fremontii*), Pomegranate (*Punica grantum*), Glossy Privet (*Ligustrum lucidum*), Mexican Fan Palm (*Washinton robusta*), Raywood Ash (*Fraxinus angustifolia 'Raywood'*), Deodar Cedar (*Cedrus deodara*), Almond (*Prunus dulcis*), Hachiya Persimmon (*Diospyros kaki 'Hachiya'*), Coast Live Oak, Fruitless Mulberry, European Olive, English Walnut, and Chinaberry. The existing trees are limited to the areas surrounding the houses and outbuildings, and along the perimeter of the property. The perimeter trees are in the way of the future property line fences and retaining walls. The interior trees are in conflict with the extensive grading that is needed to prepare the land for roads, building pads, and frontage improvements. According to the Arborist Report, because of the neglected condition of the trees, they are not healthy specimens that would be worthy of preservations efforts; the cost of preservation would surpass their future benefits to the neighborhood. Thus, 89 out of a total of 90 trees are anticipated to be removed for the proposed project.

Nevertheless, there are several off-site trees identified in the Arborist Report that overhang the northeast property line, where retaining walls are proposed. A young Raywood ash overhangs one of the lots, but it is healthy and far enough from the wall that root loss would not be significant. Three native black walnuts overhang several lots. According to the Arborist Report, they may be remnant orchard rootstock trees that are no longer in production, but still offer some screening between the properties. The regular tilling of the project site field is likely to have removed trees roots in the upper soil layer, reducing the number of roots that would be affected by the retaining wall footing. Still, walnut trees are sensitive to construction impacts such as root pruning and soil compaction. According to the Arborist Report, caution during construction is key to keeping impacts to these off-site trees to a minimum. Therefore, the Arborist Report recommends enclosing the area under their canopies with temporary chain-link fencing until the wall footing is excavated. At that time, an arborist would be on-site to ensure that roots are not damaged beyond what is needed for the proposed project. Based on the recommendations provided in the Arborist Report, the proposed project would be required to implement Mitigation Measure BIO-4, to ensure protection of the potentially vulnerable off-site trees. With

implementation of Mitigation Measure BIO-4, the proposed project would have a **less than significant** related to conflicting with local policies or ordinances protecting biological resources.

Mitigation Measure(s)
Mitigation Measure BIO-4:

The Project Applicant shall:

Pre-construction Phase

- *Prior to and/or during project construction or grading, remove the on-site trees;*
- *Prior to project construction or grading, the contractor shall install chain-link fencing at the driplines of off-site trees identified in the Arborist Report as #s 158-160 (by parcels 31 & 32), to construct a temporary Tree Protection Zone (TPZ) as indicated on the tree protection plan contained within the project Arborist Report. TPZ fencing shall remain in an upright sturdy manner until the retaining wall excavation begins, with the project arborist on-site.*

Foundation, Grading, and Construction Phase

- *The project arborist shall be on-site during excavation of the retaining wall footing within the driplines of off-site trees #158-160. Roots greater than 2" shall be cleanly pruned with a handsaw or sawzall, immediately covered, and kept moist till backfilled.*
- *Should TPZ encroachment be necessary, the contractor shall contact the project arborist for consultation and recommendations.*
- *Contractor shall keep TPZs free of all construction-related materials, debris, fill soil, equipment, etc. The only acceptable material is mulch spread out beneath the trees.*
- *Should any damage to the trees occur, the contractor shall promptly notify the project arborist to appropriately mitigate the damage.*

Responses: f): Less than Significant with Mitigation. Vegetation on the project site currently consists of ruderal vegetation. The site is within the boundaries of the ECCCHCP/NCCP. In July 2007 the ECCCHCP/NCCP was adopted by Contra Costa County, the City of Brentwood, other member cities, the USFWS and the CDFW. The ECCCHCP/NCCP provides guidance for the mitigation of impacts to covered species. Mitigation of impacts is accomplished through the payment of a Development Fee. The Development Fee requires payment based on a cost per acre for all acres converted to non-habitat with the cost per acre based on the quality of the habitat converted. The fees are used to acquire higher value habitats in preserved areas and to fund their restoration and management. Because the City of Brentwood is a signatory to the ECCCHCP/NCCP, anticipated project impacts could be mitigated through the payment of Development Impact fees to the ECCCHCP/NCCP Conservancy. The project site is mapped in "Fee Zone 1" in the ECCCHCP/NCCP and pursuant to Section 16.168.070 of the Brentwood Municipal Code will be required to pay a Development Fee. Implementation of Mitigation Measure BIO-5 ensures that this impact would **be less than significant**.

Mitigation Measure(s)

Mitigation Measure BIO-5*: Prior to the issuance of grading or construction permits for the project site, the developer shall submit an application and obtain coverage under the ECCCHCP. This will include payment of the applicable ECCCHCP per- acre fee in effect for Zone I in compliance with Section 16.168.070 of the Brentwood Municipal Code. The developer shall receive a Certificate of Coverage from the City of Brentwood and submit a construction monitoring report to the ECCC Habitat Conservancy for review and approval. The Certificate of Coverage will confirm the fee has been received, that other ECCC HCP/NCCP requirements have been met or will be performed, and will authorize take of covered species.*

V. CULTURAL RESOURCES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		X		
c) Disturb any human remains, including those interred outside of formal cemeteries?		X		

RESPONSES TO CHECKLIST QUESTIONS

Response a): No Impact. An Archaeological Survey Report and Historic Architecture Resource Evaluation, dated March 25, 2022, was prepared for the project site by Alta Archaeological Consulting (see Appendix B). Fieldwork was conducted on February 28, 2022 by Nicholas Radtkey. The survey entailed a cultural resources inventory of the project site and surrounding lands, approximately 16.3 acres. Exposed mineral soils were inspected for evidence of cultural materials. Five buildings were identified as a part of literature review, and were documented during the archaeological field survey. These buildings are recommended as ineligible for listing on the California Register of Historic Resources (CRHR). The proposed project as designed is not anticipated to have an impact on cultural resources.

It should be noted that the 2014 Brentwood General Plan Update EIR identifies 24 historic properties in the Brentwood Planning Area. None of the 24 properties listed are within the proposed project site.[2] Additionally, as previously described, the on-site buildings are recommended as ineligible for listing on the CRHR. Therefore, there is nothing on the site that could be considered a "historical resource" under Section 15064.5 in the CEQA handbook.

For the above-stated reasons, development of the proposed project would have **no impact** on historical resources.

Responses b), c): Less than Significant with Mitigation. As noted above, the Archaeological Survey Report and Historic Architecture Resource Evaluation prepared by Alta Archaeological Consulting included a records search at the Northwest Information Center (NWIC). The NWIC record search included the project site and surrounding area (CHRIS/NWIC File 21-1214). The CHRIS/NWIC record search noted that no prehistoric or historic era archaeological sites have been recorded, reported, or identified in or adjacent to the project site. Additionally, the field survey conducted by Alta Archaeological Consulting on March 25, 2022 found no prehistoric, combined prehistoric/historic or historic era archaeological materials or significant architectural resources were observed on-site.

[2] City of Brentwood. 2014 Brentwood General Plan Update EIR [pg. 3.5-7]. July 22, 2014.

Given that no known archaeological resources are associated with the project site, the subject parcel is considered of low archaeological sensitivity for prehistoric cultural resources. However, ground-disturbing activities may have the potential to uncover buried cultural deposits. As a result, during construction and excavation activities, previously unknown archaeological resources, including human bone, may be uncovered, resulting in a potentially significant impact. Implementation of the following mitigation measures would reduce the construction-related impacts to a **less than significant** level.

Mitigation Measure(s)

Mitigation Measure CUL-1: *Prior to grading permit issuance, the developer shall submit plans to the Community Development Department for review and approval which indicate (via notation on the improvement plans) that if historic and/or cultural resources are encountered during site grading or other site work, all such work shall be halted immediately within 100 feet of the area of discovery and the developer shall immediately notify the Community Development Department of the discovery. In such case, the developer shall be required, at their own expense, to retain the services of a qualified archaeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist shall be required to submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the area of discovery would not be allowed until the preceding work has occurred.*

Mitigation Measure CUL-2: *Pursuant to State Health and Safety Code §7050.5 (c) State Public Resources Code §5097.98, if human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find and the Contra Costa County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission who shall notify the person believed to be the most likely descendant. The most likely descendant (or, if there is none able to be identified, the Native Heritage Commission itself), shall work with the contractor to develop a program for reinternment of the human remains and any associated artifacts. Additional work is not to take place within the immediate vicinity of the find until the identified appropriate actions have been implemented.*

VI. ENERGY

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less Than Significant. Appendix F of the State CEQA Guidelines requires consideration of the potentially significant energy implications of a project. CEQA requires mitigation measures to reduce "wasteful, inefficient and unnecessary" energy usage (Public Resources Code Section 21100[b][3]). According to Appendix F of the CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. In particular, the proposed project would be considered "wasteful, inefficient, and unnecessary" if it were to violate state and federal energy standards and/or result in significant adverse impacts related to project energy requirements, energy inefficiencies, energy intensiveness of materials, cause significant impacts on local and regional energy supplies or generate requirements for additional capacity, fail to comply with existing energy standards, otherwise result in significant adverse impacts on energy resources, or conflict or create an inconsistency with applicable plan, policy, or regulation.

The proposed project includes 36 dwelling units. The amount of energy used at the project site would directly correlate to the size of the proposed units, the energy consumption of associated unit appliances, and outdoor lighting. Other major sources of proposed project energy consumption include fuel used by vehicle trips generated during project construction and operation, and fuel used by off-road construction vehicles during construction.

The following discussion provides calculated levels of energy use expected for the proposed project, based on commonly used modelling software (i.e. CalEEMod v.2020.4.0 and the California Air Resource Board's EMFAC2021). It should be noted that many of the assumptions provided by CalEEMod are conservative relative to the proposed project. Therefore, this discussion provides a conservative estimate of proposed project emissions.

Electricity and Natural Gas

Electricity and natural gas used by the proposed project would be used primarily to power on-site buildings. Total annual electricity (kWh) and natural gas (kBTU) usage associated with the operation of the proposed project are shown in Table 2, below (as provided by CalEEMod).

According to Calico's *Appendix A: Calculation Details for CalEEMod*, CalEEMod uses the California Commercial End Use Survey (CEUS) database to develop energy intensity value for non-

residential buildings. The energy use from residential land uses is calculated based on the Residential Appliance Saturation Survey (RASS). Similar to CEUS, this is a comprehensive energy use assessment that includes the end use for various climate zones in California.

Table 2: Project Operational Natural Gas and Electricity Usage

Emissions[(a)]	*Natural Gas (kBTU/year)*	*Electricity (kWh/year)*
Single Family Housing	932,034	274,163
Total	**932,034**	**274,163**

SOURCE: CALEEMOD (V.2020.40)

Energy usage during the operational phases of the proposed project would be typical for a project of this kind, and therefore would not represent a wasteful, inefficient, or unnecessary consumption of energy resources. Additionally, the proposed project would not conflict with or obstruct any state or local plan for renewable energy or energy efficiency.

On-Road Vehicles (Operation)

The proposed project would generate vehicle trips during its operational phase. In order to calculate new daily vehicle trips and operational on-road vehicle energy usage and emissions, default average daily trips and trip lengths generated by CalEEMod were used, which are based on the project land use, location and urbanization level parameters De Novo (the Initial Study consultant) selected within CalEEMod (i.e. "Single Family Housing" Land Use, "Bay Area Air Quality Management District" project location, and "Urban" setting, respectively). These values are provided by the individual districts or use a default average for the state, depending on the location of the proposed project (CAPCOA, 2021). Based on the CalEEMod modeling results, the project would generate approximately 2,066 average daily vehicle miles travelled (Average Daily VMT). Using fleet mix data provide by CalEEMod (v2040.4.0), and Year 2024 gasoline MPG (miles per gallon) factors for individual vehicle classes as provided by EMFAC2021, De Novo derived weighted MPG factors for operational on-road vehicles of approximately 26.1 MPG for gasoline vehicles.[3] With this information, De Novo calculated as a conservative estimate that the unmitigated proposed project would generate vehicle trips that would use a total of approximately 79 gallons of gasoline per day, on average, or 28,893 gallons of gasoline fuel per year. See Appendix C for a detailed calculation.

On-Road Vehicles (Construction)

The proposed project would also generate on-road vehicle trips during project construction (from construction workers and vendors). Estimates of vehicle fuel consumed were derived based on the assumed construction schedule, vehicle trip lengths and number of workers per construction phase as provided by CalEEMod, and Year 2023 gasoline MPG factors provided by EMFAC2021. For the purposes of simplicity, it was assumed that all worker vehicles used gasoline as a fuel source (as opposed to diesel fuel or alternative sources) and all vendor vehicles used diesel fuel as a fuel source (as opposed to gasoline or alternative sources). Table 3, below, describes gasoline and diesel fuel used by on-road mobile sources during each phase of the

[3] For the sake of simplicity, it was assumed that all operational on-road vehicles traveling to and from the project site would use gasoline.

construction schedule. As shown, the vast majority of on-road mobile vehicle fuel used during the construction of the proposed project would occur during the building construction phase. See Appendix C for a detailed calculation.

Table 3: On-Road Mobile Fuel Generated by Project Construction Activities – By Phase

Construction Phase	*# of Days*	*Total Daily Worker Trips[(a)]*	*Total Daily Vendor Trips[(a)]*	*Total Hauler Trips[(a)]*	*Gallons of Gasoline Fuel[(b)]*	*Gallons of Diesel Fuel[(b)]*
Demolition	20	15	-	34	120	1,962
Site Preparation	10	18	-	-	72	-
Grading	30	20	-		241	-
Building Construction	300	13	4		1,565	1,264
Paving	20	15	-		120	-
Architectural Coating	20	3	-		24	-
Total	**N/A**	**N/A**	**N/A**		**2,142**	**3,226**

NOTE: [(A)] PROVIDED BY CALEEMOD. [(B)]SEE APPENDIX D FOR FURTHER DETAIL

SOURCE: CALEEMOD (V.2020.4.0); EMFAC2021.

Off-Road Vehicles (Construction)

Off-road construction vehicles would use diesel fuel during the construction phase of the proposed project. A non-exhaustive list of off-road constructive vehicles expected to be used during the construction phase of the proposed project includes: cranes, forklifts, generator sets, tractors, excavators, and dozers. Based on the total amount of CO_2 emissions expected to be generated by the proposed project (as provided by the CalEEMod output), and a CO_2 to diesel fuel conversion factor (provided by the U.S. Energy Information Administration), the proposed project would use a total of approximately 13,156 gallons of diesel fuel for off-road construction vehicles (during the site preparation and grading phases of the proposed project). Detailed calculations are provided in Appendix C.

Other

Proposed project landscape maintenance activities would generally require the use fossil fuel (i.e. gasoline) energy. For example, lawn mowers require the use of fuel for power. As an approximation, it is estimated that landscape care maintenance would require approximately two individuals one full day per month, or 208 hours per year (or 104 hours per year per landscaper). Assuming an average of approximately 0.5 gallons of gasoline used per person-hour, the proposed project would require the use of approximately 56 gallons of gasoline per year to power landscape maintenance equipment. The energy used to power landscape maintenance equipment would not differ substantially from the energy required for landscape maintenance for similar projects.

The proposed project could also use other sources of energy not identified here. Examples of other energy sources include alternative and/or renewable energy (such as solar PV) and/or on-

site stationary sources (such as on-site diesel generators) for electricity generation. The proposed project will install a solar system on every home to satisfy the majority of each home's estimated energy use, which would reduce the need for fossil fuel-based energy (for proposed project buildings), including for electricity.

Conclusion

The proposed project would use energy resources for the operation of project buildings (electricity and natural gas), for on-road vehicle trips (e.g. gasoline and diesel fuel) generated by the proposed project, and from off-road construction activities associated with the proposed project (e.g. diesel fuel). Each of these activities would require the use of energy resources. The proposed project would be responsible for conserving energy, to the extent feasible, and relies heavily on reducing per capita energy consumption to achieve this goal, including through Statewide and local measures.

The proposed project would be in compliance with all applicable Federal, State, and local regulations regulating energy usage. For example, PG&E is responsible for the mix of energy resources used to provide electricity for its customers, and it is in the process of implementing the Statewide Renewable Portfolio Standard (RPS) to increase the proportion of renewable energy (e.g. solar and wind) within its energy portfolio. PG&E is expected to achieve at least a 50% mix of renewable energy resources by 2030. Additionally, energy-saving regulations, including the latest State Title 24 building energy efficiency standards ("part 6"), would be applicable to the proposed project. Other Statewide measures, including those intended to improve the energy efficiency of the statewide passenger and heavy-duty truck vehicle fleet (e.g. the Pavley Bill and the Low Carbon Fuel Standard), would improve vehicle fuel economies, thereby conserving gasoline and diesel fuel. These energy savings would continue to accrue over time.

As a result, the proposed project would not result in any significant adverse impacts related to project energy requirements, energy use inefficiencies, and/or the energy intensiveness of materials by amount and fuel type for each stage of the project including construction, operations, maintenance, and/or removal. PG&E, the electricity and natural gas provider to the site, maintains sufficient capacity to serve the proposed project. The proposed project would comply with all existing energy standards, including those established by the City of Brentwood, and would not result in significant adverse impacts on energy resources. Furthermore, existing connections exist between the project site and nearby pedestrian and bicycle pathways, and public transit access exists nearby, reducing the need for local motor vehicle travel. Although improvements to the City's pedestrian, bicycle, and public transit systems would provide further opportunities for alternative transit, the proposed project would be linked closely with existing networks that, in large part, are sufficient for most residents of the proposed project and the City of Brentwood as a whole. For these reasons, the proposed project would not be expected cause an inefficient, wasteful, or unnecessary use of energy resources nor cause a significant impact on any of the threshold as described by Appendix F of the CEQA Guidelines. This is a **less than significant** impact.

VII. GEOLOGY AND SOILS

	Potentially Significant Impact	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*No Impact*
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.		X		
ii) Strong seismic ground shaking?		X		
iii) Seismic-related ground failure, including liquefaction?		X		
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?		X		
c) Be located on a geologic unit or soil 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?		X		
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?		X		
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

RESPONSES TO CHECKLIST QUESTIONS

Responses a.i), a.ii): Less than Significant with Mitigation. The following discussion is based primarily on a Geotechnical Exploration Report dated March 24, 2022 prepared by ENGEO (see Appendix D) for the project site.

According to the report, the site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone; however, large (>M_w7) earthquakes have historically occurred in the Bay Area and along the margins of the Central Valley with many earthquakes of low magnitude

occurring every year. The nearest earthquake faults zoned as active by the State of California Geological Survey are the Greenville fault located about 9 miles to the southwest and the Great Valley Fault located approximately 9 miles to the west, mapped as Quartnernary Age. The Greenville Fault is considered to be capable of a moment magnitude earthquake of 6.8 to 7.0. The Great Valley fault is a blind thrust fault with no known surface expression; the postulated fault location has been based on regional seismic activity and isolated subsurface information. Portions of the Great Valley fault are considered seismically active thrust faults; however, since the Great Valley fault segments are not known to extend to the ground surface, the State of California has not defined Earthquake Fault Hazard Zones around the postulated traces.

Other active faults in the San Francisco Bay Area capable producing significant ground shaking at the site include the Concord-Green Valley Fault (16 miles west), the Calaveras Fault (19 miles southwest), the Hayward Fault (28 miles southwest), and the San Andreas Fault (46 miles southwest).

Potential seismic hazards resulting from a nearby moderate to major earthquake could generally be classified as primary and secondary. The primary seismic hazard is ground rupture, also called surface faulting. The common secondary seismic hazards include ground shaking and ground lurching.

Ground Rupture
Because the property does not have known active faults crossing the site, and the site is not located within an Earthquake Fault Special Study Zone, ground rupture is unlikely at the subject property.

Ground Shaking
An earthquake of moderate to high magnitude generated within the San Francisco Bay region could cause considerable ground shaking at the site, similar to that which has occurred in the past. The project would be built using standard engineering and seismic safety design techniques. Building design at the project site would be completed in conformance with the recommendations of the geotechnical investigation required by Mitigation Measure GEO-2 below, as reviewed and approved by the City of Brentwood Building Division. The structures would meet the requirements of applicable Building and Fire Codes, including the 2022 California Building Code (CBC), as adopted or updated by the City of Brentwood. Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead-and-live loads. The code-prescribed lateral forces are generally considered to be substantially smaller than the comparable forces that would be associated with a major earthquake. Therefore, structures would be able to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse but with some structural as well as nonstructural damage.

Ground Lurching
Ground lurching is a result of the rolling motion imparted to the ground surface during energy released by an earthquake. Such rolling motion could cause ground cracks to form in weaker soils. The potential for the formation of these cracks is considered greater at contacts between deep alluvium and bedrock. Such an occurrence is possible at the site as in other locations in the Bay Area, but based on the site location, the offset is expected to be very minor.

Conclusion
The project site is not within an Alquist-Priolo Special Studies Zone; however, the Brentwood area is located in a seismically active zone. Six active faults are located within an approximate 50-mile radius of the project site. The nearest State of California zoned, active fault is the Greenville fault located about 9 miles to the southwest of the project site. Development of the proposed project in this seismically active zone could expose people or structures to substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault and/or strong seismic ground shaking. Therefore, a potentially significant impact could result. In accordance with Action SA 1 of the City of Brentwood General Plan, a geotechnical report was prepared by ENGEO for the project, which included a number of earthwork, foundation, and design recommendations to be incorporated into the project design plans and specifications. These recommendations have been incorporated into Mitigation Measure GEO-2. Implementation of the following mitigation measures would ensure the potential impacts are ***less than significant.***

Mitigation Measure(s)
Mitigation Measure GEO-1*: All project buildings shall be designed in conformance with the current edition of the California Building Code (CBC), as adopted and amended by the City of Brentwood.*

Mitigation Measure GEO-2*: Prior to final design approval and issuance of building permits for each phase of the project, the project applicant shall incorporate the recommendations included in the Geotechnical Exploration prepared by ENGEO (dated March 24, 2022) into the project design and specifications related to the following topics:*

- *Earthwork*
    - *General Site Clearing*
    - *Site Preparation*
    - *Over-Optimum Soil Moisture Conditions*
    - *Acceptable Fill*
    - *Fill Compaction*
    - *Underground Utility Backfill*
    - *Site Drainage*
- *Foundation Design*
    - *Post-Tensioned Mat Foundations*
    - *Moisture Vapor Reduction*
    - *Secondary Slabs-on-grade*
- *Soundwall and Retaining Walls*
    - *Lateral Soil Pressures*

  - *Retaining Wall Foundations*
  - *Retaining Wall Drainage*
- *Pavement Design*

Mitigation Measure GEO-3*: All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the City Engineer, Chief Building Official, and a qualified Geotechnical Engineer prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the project design in order to adhere to all geotechnical requirements contained in the California Building Code.*

Responses a.iii), c): Less than Significant with Mitigation. Soil liquefaction results from loss of strength during cyclic loading, such as that which is imposed by earthquakes. Soils most susceptible to liquefaction are clean, loose, saturated, uniformly graded, and fine-grained sands. The Geotechnical Exploration Report prepared by ENGEO noted the site contained fine-grained clayey soils and no groundwater was encountered during the site visit. For these reasons, ENGEO notes low potential for soil liquefaction at the site. Additionally, Mitigation Measure GEO-2 requires the implementation of recommendations included in ENGEO's Geotechnical Exploration Report to ensure that all on-site fill soils are properly compacted and comply with the applicable safety requirements established by the CBC to reduce risks associated with unstable soils and excavations and fills, and that any issues with soil corrosive and liquefaction are addressed at the design level. Implementation of Mitigation Measure GEO-2 would reduce impacts to **less than significant** levels related to soil stability, and the potential result in, lateral spreading, subsidence, liquefaction or collapse.

Mitigation Measure(s)
Implement Mitigation Measure GEO-2

Responses a, iv): Less than Significant. The Geotechnical Exploration Report prepared by ENGEO noted the site is relatively flat and that the risk of landslides is considered low to negligible. This is a **less than significant** impact.

Response b): Less than Significant with Mitigation. The project site currently consists primarily of undeveloped land. According to the project site plans prepared for the proposed project, development of the proposed project would result in the creation of new impervious surface areas (such as sidewalks) throughout the project site. However, the proposed project would include permeable surfaces the project site roadways and driveways. The development of the project site would also cause ground disturbance of top soil. The ground disturbance would be limited to the areas proposed for grading and excavation, including the residential building pads and drainage, sewer, and water infrastructure improvements. After grading and excavation, and prior to overlaying the disturbed ground surfaces with impervious surfaces and structures, the potential exists for wind and water erosion to occur, which could adversely affect downstream storm drainage facilities.

Without implementation of appropriate Best Management Practices (BMPs) related to prevention of soil erosion during construction, development of the project would result in a potentially significant impact with respect to soil erosion.

Implementation of the following mitigation measures would ensure the impact is **less than significant**.

Mitigation Measure(s)

Mitigation Measure GEO-4: *Prior to grading permit issuance, the applicant shall submit a final grading plan to the City Engineer for review and approval. If the grading plan differs significantly from the proposed grading illustrated on the approved project plans, plans that are consistent with the new revised grading plan shall be provided for review and approval by the City Engineer.*

Mitigation Measure GEO-5: *Any applicant for a grading permit shall submit an erosion control plan to the City Engineer for review and approval. The plan shall identify protective measures to be taken during construction, supplemental measures to be taken during the rainy season, the sequenced timing of grading and construction, and subsequent revegetation and landscaping work to ensure water quality in creeks and tributaries in the General Plan Area is not degraded from its present level. All protective measures shall be shown on the grading plans and specify the entity responsible for completing and/or monitoring the measure and include the circumstances and/or timing for implementation.*

Mitigation Measure GEO-6*: Grading, soil disturbance, or compaction shall not occur during periods of rain or on ground that contains freestanding water. Soil that has been soaked and wetted by rain or any other cause shall not be compacted until completely drained and until the moisture content is within the limit approved by a Soils Engineer. Approval by a Soils Engineer shall be obtained prior to the continuance of grading operations. Confirmation of this approval shall be provided to the Public Works Department prior to commencement of grading.*

Response d): Less than Significant with Mitigation. Expansive soils shrink/swell when subjected to moisture fluctuations, which could cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. Building damage due to moisture changes in expansive soils could be reduced by appropriate grading practices and using post-tensioned slab foundations or similarly stiffened foundation systems which are designed to resist the deflections associated with soil expansion. ENGEO's Geotechnical Exploration Report notes that the near surface soils on-site exhibit a moderate to high expansion potential. Therefore, because of the potential presence of expansive soils on the site, a **potentially significant** impact could occur. To reduce the potential for damage to the planned structures, ENGEO recommends that all residential structures be supported on properly designed post-tensioned (PT) mat foundations bearing on engineered fill or compacted native soils. In addition, to reduce expansion potential of the underlying soils, ENGEO recommends that clayey soils be compacted at a slightly lower relative compaction at a moisture content well over optimum. Implementation of Mitigation Measure GEO-2 ensures the project applicant incorporates the above recommendations into the design of the project, as well as a number of other earthwork and

design recommendations to ensure the safety and welfare of future project residence. Therefore, this impact is considered **less than significant with mitigation**.

Mitigation Measure(s)
Implementation of Mitigation Measure GEO-2.

Response e): No Impact. The project has been designed to connect to the existing City sewer system and septic systems will not be used. Therefore, **no impact** would occur related to soils incapable of adequately supporting the use of septic tanks.

Response f) Less than Significant with Mitigation. The City's General Plan indicates that known paleontological resources do not exist within the City Planning Area. However, development allowed under the General Plan could result in the discovery and disturbance of previously unknown or undiscovered paleontological resources. Geologic formations, including the Upper Cretaceous marine sedimentary rocks and various Quaternary subunits, that have a moderate to high potential for paleontological resources, are present throughout many areas of the City. Therefore, previously unknown paleontological resources could exist within the project site. Thus, ground-disturbing activity associated with implementation of the proposed project, would have the potential to disturb or destroy such resources. Therefore, the proposed project could result in the direct or indirect destruction of a unique paleontological resource, resulting in a potentially significant impact. Action COS 6e of the City of Brentwood General Plan requires all new development projects to comply with procedures upon discovery of unique paleontological resources. Consistent with Action COS 6e, Mitigation Measure GEO-7 would require ensure impacts related to disturbance of paleontological resources would be less than significant. Implementation of Mitigation Measure GEO-7 would ensure this impact is considered **less than significant**.

Mitigation Measure(s)
Mitigation Measure GEO-7*: Should construction or grading activities result in the discovery of unique paleontological resources, all work within 100 feet of the discovery shall cease. The Community Development Director shall be notified, and the resources shall be examined by a qualified archaeologist, paleontologist, or historian, at the developer's expense, for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist, paleontologist, or historian shall submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Work may only resume in the area of discovery when the preceding work has occurred. The language of this mitigation measure shall be included via notation on the Project improvement plans.*

VIII. GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. Implementation of the proposed project would cumulatively contribute to increases of GHG emissions that are associated with global climate change. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO_2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O). Sources of GHG emissions include area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO_2 equivalents ($MTCO_2e/yr$).

The BAAQMD identifies screening criteria for development projects, which provide a conservative indication of whether a development could result in a potentially significant impact associated with GHG emissions. If the screening criterion for GHG is met by a project, an assessment of that project's GHG emissions would be required. The operational GHG screening criterion for a single-family residential development is if the development is less than or equal to 56 dwelling units. Because the proposed project consists of 36 dwelling units, a GHG assessment is not required for the proposed project.

In any case, the City of Brentwood General Plan EIR previously analyzed GHG emissions under worst-case conditions within (1) the existing boundaries of the City of Brentwood, (2) upon full buildout of the General Plan within the city limits, and (3) upon buildout within the City Planning Area. The City of Brentwood General Plan EIR found that, upon full buildout of the General Plan within the city limits, CO_2e emissions are projected to be 361,490.3 metric tons per year, which represents a decrease of approximately 30 percent when compared with existing conditions. This reduction is primarily expected to be due to State actions affecting vehicle and building energy efficiency, including the Low Carbon Fuel Standard (LCFS), the Pavley rule, updates to the Title 24 energy efficiency requirements, and the Renewable Portfolio Standard (RPS). The General Plan EIR found all impacts to greenhouse gases and climate change to be less than significant, and that the General Plan would be consistent with the State's GHG reduction goals established under AB 32. AB 32 was passed by the California legislature in 2006, which established a Statewide reduction goal of a reducing GHG emissions to 1990 levels by 2020. The California Air Resources Board determined this to be approximately equivalent to a reduction of 15% below emissions under a "business as usual" scenario by 2020.

The proposed project would be located on a site that was included within the General Plan full buildout scenario. The proposed project site was designated for Residential Very Low Density uses in the Brentwood General Plan in effect at the time ABAG projections were forecast. The proposed project is consistent with the General Plan land use designation, which was assumed to occur as part of the General Plan EIR analysis. Therefore, the proposed project is consistent with the assumptions and calculations utilized within the General Plan EIR, and implementation of the proposed project would not result in cumulative GHG emissions beyond the levels analyzed and disclosed in the General Plan EIR. As such, the proposed project would be consistent with the State's GHG reduction goals established under AB 32. In addition, the proposed project would not conflict with the more recent Statewide legislation (SB 32), passed into law in 2016, which codifies a 2030 GHG emissions reduction target of 40% below by 1990 levels by 2030. The BAAQMD is currently working to incorporate the GHG reduction requirements of SB 32 into their GHG thresholds of significance.

Overall, the proposed project would be consistent with the State's 2020 GHG reduction goals established under AB 32. In addition, the proposed project would not conflict with more recent legislation, SB 32, which establishes a Statewide GHG reduction target for 2030. Therefore, the project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and impacts associated with the generation of GHG emissions would be considered **less than significant**.

IX. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		X		
b) Create 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?		X		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project 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, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant with Mitigation. The following discussion addresses potential hazards associated with existing site conditions of the project site, as well as the potential use of hazardous materials during operation of the project.

Existing Site Conditions and Associated Hazards

A Phase I Environmental Site Assessments (Phase I), dated April 15, 2021, was prepared for the project site at APN: 018-060-006, 018-060-007 by ENGEO (see Appendix E).

As part of the Phase I Report, AllWest conducted a review of property records, previous environmental reports, and historical record sources to determine the previous site uses and if there are any environmental liens and/or activity use limitations on the property. AllWest also conducted a review of federal, state and local regulatory agency databases provided by

Environmental Data Resources (EDR) to evaluate the likelihood of contamination incidents at and near the site. The database sources and the search distances are in general accordance with the requirements of ASTM E 1527-13. The purpose of the records review was to obtain reasonably available information to help identify Recognized Environmental Conditions (RECs).

Recognized Environmental Conditions

The Phase I identified a REC on the subject property based on historical agricultural land use activities and the age of the on-site structures. Residual agricultural chemicals from farming application and lead, pesticides, and herbicides from residential application, as well as flaking lead-based paint (LBP) may remain present in near-surface soil in the former cultivated areas and surrounding current and former structure perimeters.

Therefore, prior to the project site being developed, the Phase I recommends that evaluation of soil quality immediately surrounding building footprints and in the agricultural fields for pesticides, herbicides and related metals (including lead and arsenic).

The Phase I did not identify any Historical RECs or a Controlled RECs at the subject property stemming from its current, historical or surrounding land use activities.

Underground Tank Storage

Based on the age of the on-site buildings, the Phase 1 recommends an underground storage tank (UST) survey around the existing structures and immediately surrounding areas. Due to the age of the structures present on the subject property, asbestos-containing materials (ACM) and LBP are presumed present. Prior to demolition of site structures, pre-demolition asbestos and lead-based paint surveys must be conducted by a licensed consultant. Identified ACMs must be appropriately abated by a licensed contractor.

Wells and Septic Systems

The unused well on the eastern portion of the project site should be abandoned in accordance with regulatory agency requirements. If no longer planned for use in the future, the existing potable water supply well on the western portion of the project site also should be abandoned in accordance with regulatory agency requirements.

Should additional wells be located on the subject property in the future, the Phase 1 also recommends that they be abandoned in accordance with regulatory agency requirements. Additionally, should any septic systems remain on the subject property, they would also require removal prior to redevelopment.

Site Reconnaissance

To confirm site conditions, AllWest conducted a reconnaissance of the project site on March 25, 2021.

AllWest observed the building premises for potential ACM such as floor coverings, and ceiling and wall materials. No samples were collected. Based on the age of the buildings and our

observations during the site visit, ACM are presumed to be present in wallboard and caulking, vinyl floor coverings and mastic.

AllWest evaluated the building premises for potential LBP coatings such as ceilings, and exterior and interior walls. Due to the age of the on-site buildings, constructed prior to the 1978 federal ban on LBP, painted surfaces are suspected to include LBP.

Limited mold growth was observed inside 7590 and 7600 Lone Tree Way bathrooms. Mold was not observed elsewhere in the accessible structures.

AllWest assessed the site's land use history by reviewing aerial photographs, topographic maps, city directories and other relevant documents. Their review indicates the subject property was developed with residential/agricultural structures in the southwest and southeast corners and cultivated with orchards/row crops from as early as 1939. Orchard cultivation ceased in the late 1970s or early 1980s. Changes in developments over time were too difficult to discern due to the poor quality of many of the aerial photographs and the lack of permit records and other historical documentation.

Regulated amounts of hazardous materials or wastes were not observed on the subject property during the site visit. No evidence of illegal dumping was observed during AllWest's site visit.

Records Search

The subject property is not a recorded source of soil or groundwater contamination. However, from at least the 1930s until the late 1970s or early 1980s, the subject property was cultivated with orchards. Based on this land use history, AllWest cannot discount the potential for residual agricultural chemicals, such as pesticides, herbicides and related metals, such as arsenic and lead, to remain present in near-surface soils. Pesticides and herbicides potentially applied around the structure perimeters, as well as lead from flaking LBP, may be also present.

To identify the site's potential inclusion on environmental databases and evaluate off-site environmental concerns, AllWest reviewed a site-specific radius report provided by Environmental Data Resources, Inc. (EDR). The radius report searched agency lists and databases for recorded sites within the industry standard search radii. The project site was not included on any of the databases researched by EDR.

The agency database search found no surrounding or adjoining sites that appear likely to have significantly impacted the soil or groundwater resources underlying the project site.

Proposed Project Uses

The proposed project has limited potential for the routine transport, use, or disposal of hazardous materials. The proposed residential uses would not involve the routine transport, use, or disposal of hazardous materials, or present a reasonably foreseeable release of hazardous materials. Hazardous materials associated with the residential uses would consist mostly of typical household-type cleaning products and fertilizers, which would be utilized in small quantities and in accordance with label instructions.

Conclusion

Development of the proposed project would include 36 dwelling units and associated infrastructure. Projects that involve the routine transport, use, or disposal of hazardous materials are typically industrial in nature. The proposed project would not involve the routine transport, use, or disposal of hazardous materials. However, the Phase I prepared for the project site identified a REC at the project site, based on historical agricultural land use activities and the age of the on-site structures. Therefore, the proposed project would be required to implement Mitigation Measures HAZ-1 thru HAZ-3. With implementation of these Mitigation Measures, there is a **less than significant** impact relative to this environmental topic.

Mitigation Measure(s)

Mitigation Measure HAZ-1: *Prior to issuance of grading permits, the Applicant shall hire a qualified professional to evaluate the soil quality immediately surrounding (i.e. within 10 feet of) building footprints and in the agricultural fields for pesticides, herbicides and related metals (including lead and arsenic). Additionally, prior to demolition of project site structures, the Applicant shall hire a qualified licensed contractor to conduct pre-demolition asbestos and lead-based paint surveys for the existing buildings located on the project site. The results of the sampling shall be provided to the City of Brentwood. Any identified asbestos-containing materials (ACMs) and/or lead based paints (LBPs) shall be abated by a licensed contractor, in accordance with federal and state law, prior to grading activities.*

Mitigation Measure HAZ-2: *Prior to the issuance of grading permits, the Applicant shall conduct an underground storage tank survey around the existing structures and in areas where underground storage tanks may be suspected. If any underground storage tanks are discovered, they shall be removed, consistent with the requirements of the Contra Costa County Environmental Health Division.*

Mitigation Measure HAZ-3: *Prior to the issuance of grading permits, the Applicant shall ensure the unused well located on the project site is abandoned, and that any septic systems remaining on the project site are removed. Removals shall be done to the standards established by the Contra Costa County Environmental Health Division.*

Response c): Less than Significant. The nearest sensitive receptors are the residential properties located the west, north, and south of the project site, as well as the Brentwood Muslim Community Center to the south, and a Smart Start Preschool and residences to the west. As discussed above in Responses a) and b), the proposed project has limited potential for the routine transport, use, or disposal of hazardous materials. The proposed residential uses would not involve the routine transport, use, or disposal of hazardous materials, or present a reasonably foreseeable release of hazardous materials. Therefore, the project would have a **less than significant** impact with respect to emitting hazardous emissions or handling hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school.

Response d): No impact. In preparing the Phase 1 Report (2021), ENGEO performed a search of Federal, State, and local hazardous materials/sites databases regarding the project site and

nearby properties. The project site is not listed on the Standard Environmental Record source databases. ENGEO identified two facilities within the ASTM search distances of the project site, including:

- Dutra, Leroy (Smith Lane) – Envirostor database;
- Meritage Homes (7281 Lone Tree Way) – Envirostor database;

Based on the distances to the identified database sites, regional topographic gradient, and the environmental database review findings, ENGEO believes is unlikely that any of the above-stated database sites pose an environmental risk to the property. Additionally, no orphan properties appear within the ASTM recommended radius search criteria.

The project site has not been identified in any of the hazardous databases, nor is the site on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As a result, the proposed project would have **no impact** under this criterion.

Responses e): No impact. The project site is not within an airport land use plan or within two miles of an airport. The nearest airport, Funny Farm Airfield, is a private airfield located approximately 3 miles east of the project site. Therefore, implementation of the proposed project would result in **no impact** to this environmental topic.

Response f): Less than significant. The Brentwood General Plan currently designates the proposed project site for residential very low density uses, such as those proposed for the project. Implementation of the proposed project would not result in any substantial modifications to the existing roadway system and would not interfere with potential evacuation or response routes used by emergency response teams. Therefore, the impact would be **less than significant**.

Response g): No impact. The site is not located within an area where wildland fires occur. The site is predominately surrounded by existing development which has a low potential for wildland fires. Therefore, **no impact** would occur.

X. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?		X		
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site;		X		
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;		X		
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or		X		
(iv) impede or redirect flood flows?			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?		X		

RESPONSES TO CHECKLIST QUESTIONS

Responses a): Less than Significant with Mitigation.

During the early stages of construction activities, topsoil would be exposed due to grading and partial leveling of the site. After grading and leveling and prior to overlaying the ground surface with impervious surfaces and structures, the potential exists for wind and water erosion to discharge sediment and/or urban pollutants into stormwater runoff.

The State Water Resources Control Board (SWRCB) regulates stormwater discharges associated with construction activities where clearing, grading, or excavation results in a land disturbance of one or more acres. Performance Standard NDCC-13 of the City's National Pollutant Discharge Elimination System (NPDES) permit requires applicants to show proof of coverage under the State's General Construction Permit prior to receipt of any construction permits. The State's

General Construction Permit requires a Storm Water Pollution Prevention Plan (SWPPP) to be prepared for the site. A SWPPP describes Best Management Practices (BMPs) to control or minimize pollutants from entering stormwater and must address both grading/erosion impacts and non-point source pollution impacts of the development project, including post-construction impacts. The City of Brentwood requires all development projects to use BMPs to treat runoff.

In summary, disturbance of the on-site soils during construction activities could result in a potentially significant impact to water quality should adequate BMPs not be incorporated during construction in accordance with SWRCB regulations.

Implementation of the following mitigation measures would reduce the above impact to a **less than significant** level.

Mitigation Measure(s)

Mitigation Measure HYD-1: *Prior to issuance of grading permits, the contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP). The Developer shall file the Notice of Intent (NOI) and associated fee to the SWRCB. The SWPPP shall serve as the framework for identification, assignment, and implementation of BMPs. The contractor shall implement BMPs to reduce pollutants in stormwater discharges consistent with the requirements established in 15.52.60(F): Erosion and Sediment Control of the City's Municipal Code. The SWPPP shall be submitted to the City Engineer for review and approval and shall remain on the project site during all phases of construction. Following implementation of the SWPPP, the contractor shall subsequently demonstrate the SWPPP's effectiveness and provide for necessary and appropriate revisions, modifications, and improvements to reduce pollutants in stormwater discharges to the maximum extent practicable.*

Mitigation Measure HYD-2: *Prior to the completion of construction, the applicant shall prepare and submit, for the City's review, an acceptable Stormwater Control Operation and Maintenance Plan. In addition, prior to the sale, transfer, or permanent occupancy of the site, the applicant shall be responsible for paying for the long-term maintenance of treatment facilities, and executing a Stormwater Management Facilities Operation and Maintenance Agreement and Right of Entry in the form provided by the City of Brentwood. The applicant shall accept the responsibility for maintenance of stormwater management facilities until such responsibility is transferred to another entity.*

The applicant shall submit, with the application of building permits, a draft Stormwater Facilities and Maintenance Plan, including detailed maintenance requirements and a maintenance schedule for the review and approval by the City Engineer. Typical routine maintenance consists of the following:

- *Limit the use of fertilizers and/or pesticides. Mosquito larvicides shall be applied only when absolutely necessary.*
- *Replace and amend plants and soils as necessary to ensure the planters are effective and attractive. Plants must remain healthy and trimmed if overgrown. Soils must be maintained to efficiently filter the storm water.*

- *Visually inspect for ponding water to ensure that filtration is occurring.*
- *After all major storm events, remove bubble-up risers for obstructions and remove if necessary.*
- *Continue general landscape maintenance, including pruning and cleanup throughout the year.*
- *Irrigate throughout the dry season. Irrigation shall be provided with sufficient quantity and frequency to allow plants to thrive.*
- *Excavate, clean and or replace filter media (sand, gravel, topsoil) to insure adequate infiltration rate (annually or as needed).*

Mitigation Measure HYD-3: *Design of both the on-site drainage facilities shall meet with the approval of both the City Engineer and the Contra Costa County Flood Control and Water Conservation District prior to the issuance of grading permits.*

Mitigation Measure HYD-4: *Contra Costa County Flood Control and Water Conservation District drainage fees for the Drainage Area shall be paid prior to issuance of grading permits to the satisfaction of the City Engineer.*

Mitigation Measure HYD-5: *The Applicant/Developer shall ensure that the project site shall drain into a street, public drain, or approved private drain, in such a manner that un-drained depressions shall not occur. Satisfaction of this measure shall be subject to the approval of the City Engineer.*

Mitigation Measure HYD-6: *The improvement plans shall indicate concentrated drainage flows not crossing sidewalks or driveways for the review and approval of the City Engineer prior to the issuance of grading permits.*

Response b): Less than Significant. The City provides domestic, potable water to its residents using both surface water and groundwater resources. The City has five active groundwater wells, which provided approximately 30 percent of the potable water supplied during 2010. Brentwood is located within the East Contra Costa Subbasin (ECC Subbasin) of the San Joaquin Valley Groundwater Basin. In February 2019, the Department of Water Resources approved dividing the Tracy Subbasin of the San Joaquin Valley Groundwater Basin into two subbasins (e.g., East Contra Costa Subbasin and the new Tracy Subbasin) thereby creating a separate groundwater basin entirely within Contra Costa County. While the project would create new impervious surface areas on portions of the 16.3-acre project site, the ECC Subbasin comprises 107,596 acres (168 square miles) underlying all or portions of the Cities of Antioch, Oakley, Brentwood, the Town of Discovery Bay and the communities of Bethel Island Byron and Knightsen. Therefore, recharge of the groundwater basin within which the project site is located comes from many sources over Contra Costa County.

The new impervious surfaces associated with the project would not cause a substantial depletion of recharge within the ECC Subbasin. The proposed project is consistent with the General Plan land use designation for the site, as the potential water demand of future site development was accounted for and considered in the General Plan EIR and the most recent Urban Water Management Plan. As demonstrated in these documents, the City has adequate supply availability to meet future buildout water demands. Additionally, as noted in the City of Brentwood's 2020 Urban Water Management Plan, the creation of the ECC Subbasin would not negatively affect

sustainable groundwater use in the area and does not affect existing or historic water supply coordination with local agencies in the subbasin. Therefore, implementation of the project would not cause a substantial depletion of recharge within the ECC Subbasin.

As discussed above, the City of Brentwood has adequate water supply to meet the demands of the proposed project as well as future anticipated development allowed under the Brentwood General Plan, as described in greater detail in *Section XIX, Utilities and Service Systems.* The project itself does not include installation of any wells, but would include eventual connections to existing City of Brentwood water infrastructure, including connection to the City's potable water distribution system. The project will also be required to connect to the non-potable water system and provide non-potable irrigation to the bioretention basin, Parcel A. Additionally, the City is currently in the process of developing and expanding infrastructure for non-potable water and will require the applicant to provide stubs to Parcel A for future connection.

Overall, the proposed project would result in a **less than significant** impact with respect to substantially depleting groundwater supplies or interfering substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.

Responses c.i), c.ii), c.iii, e): Less than Significant with Mitigation

When land is in a natural or undeveloped condition, soils, mulch, vegetation, and plant roots absorb rainwater. This absorption process is called infiltration or percolation. Much of the rainwater that falls on natural or undeveloped land slowly infiltrates the soil and is stored either temporarily or permanently in underground layers of soil. When the soil becomes completely soaked or saturated with water or the rate of rainfall exceeds the infiltration capacity of the soil, the rainwater begins to flow on the surface of land to low lying areas, ditches, channels, streams, and rivers. Rainwater that flows off a site is defined as storm water runoff. When a site is in a natural condition or is undeveloped, a larger percentage of rainwater infiltrates into the soil and a smaller percentage flows off the site as storm water runoff.

The infiltration and runoff process is altered when a site is developed. Buildings, sidewalks, roads, and parking lots introduce asphalt, concrete, and roofing materials to the landscape. These materials are relatively impervious, which means that they absorb less rainwater. As impervious surfaces are added to the ground conditions, the natural infiltration process is reduced. As a result, the volume and rate of storm water runoff increases. The increased volumes and rates of storm water runoff can result in flooding if adequate storm drainage facilities are not provided. However, it should be noted that the project streets and driveways would utilize permeable surfaces.

The project would create new impervious surface on a site that previously contained a minimal amount of impervious surface area. The project would be served by existing storm drainage infrastructure. Wastewater, water, and storm drainage lines would be connected via existing lines along the Lone Tree Way right-of-way. Stormwater treatment and drainage management would include on-site drainage infrastructure strategies that will ensure adequate drainage.

Therefore, project development would not result in a substantial increase in the rate of amount of surface runoff in a manner which would result in flooding nor would it create or contribute to runoff water which would exceed the capacity of existing or planned stormwater drainage system.

A long-term maintenance plan is needed to ensure that all proposed stormwater treatment BMPs and facilities function properly. Should the proposed water quality treatment facilities not be maintained properly, a potentially significant impact could occur with respect to creating or contributing runoff water that would exceed the capacity of existing or planned stormwater drainage systems or providing substantial additional sources of polluted runoff.

If left uncontrolled, the operation of the proposed project could result in the potential for pollutants to wash down and potentially drain into nearby creeks. However, all municipalities within Contra Costa County (and the County itself) are required to develop more restrictive surface water control standards for new development projects as part of the renewal of the Countywide NPDES permit. Known as the "C.3 Standards," new development and redevelopment projects that create or replace 10,000 or more square feet of impervious surface area must contain and treat stormwater runoff from the site. The proposed project is a C.3 regulated project and is required to include appropriate site design measures, source controls, and hydraulically-sized stormwater treatment measures.

The proposed project would not substantially alter the existing drainage pattern of the site or the area. Therefore, with implementation of the following mitigation measure, the proposed project would result in **less than significant** impacts related to the alteration of the existing drainage pattern of the site or area, or create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Mitigation Measure(s)

Implement Mitigation Measure HYD-2

Responses c.iv): Less than Significant. According to the Flood Insurance Rate Map Panel provided by FEMA, the project site is not located within the 500-year, 200-year, or 100-year flood zone or floodplain. Therefore, a **less than significant** impact would result from implementation of the proposed project with respect to placing structures within a 100- year floodplain, which would impede or redirect flood flows.

Response d): Less than Significant. Tsunamis are defined as sea waves created by undersea fault displacement. A tsunami poses little danger away from shorelines; however, when a tsunami reaches the shoreline, a high swell of water breaks and washes inland with great force. Historic records of the Bay Area used by one study indicate that nineteen tsunamis were recorded in San Francisco Bay during the period of 1868-1968. Maximum wave height recorded at the Golden Gate tide gauge (where wave heights peak) was 7.4 feet. The available data indicate a standard decrease of original wave height from the Golden Gate to about half original wave height on the shoreline near Richmond, and to nil at the head of the Carquinez Strait. As Brentwood is several

miles inland from the Carquinez Strait, the project site is not exposed to flooding risks from tsunamis and adverse impacts are not expected to result. This is a **less than significant** impact.

A seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir, whose destructive capacity is not as great as that of tsunamis. Seiches are known to have occurred during earthquakes, but none have been recorded in the Bay Area. In addition, the project is not located near a closed body of water. Therefore, risks from seiches and adverse impacts are not expected to result. This is a **less than significant** impact.

XI. LAND USE AND PLANNING

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a): No Impact. As noted in the General Plan, the City of Brentwood has planned for orderly, logical development that supports compatibility among adjacent uses. The General Plan goals seek to retain the character of existing communities and ensure that future land uses are compatible with existing uses. Currently, there are no existing structures on the site, and the site is surrounded by residential neighborhoods. The proposed project, which includes residential development, would not physically divide an established community due to the nature of the site, and its location within city limits. Therefore, the project would have **no impact** related to physically dividing an established community.

Responses b): Less than Significant. The Brentwood General Plan identifies the project site for Residential Very Low Density land uses. The Residential Very Low Density land use requires densities between 1.1 and 3 du/ac. The proposed project consists of the development of 36 dwelling units on 16.3 acres, which results in approximately 2.2 du/ac, which is within the General Plan density range. Therefore, the proposed project is consistent with the existing General Plan land use designation. The potential for the project to result in a significant impact due to a conflict with policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect is addressed throughout this Initial Study, on a topic by topic basis. As demonstrated in this report, the project would have a **less than significant** impact related to conflicting with applicable land use plans, policies, regulations, or surrounding uses.

XII. MINERAL RESOURCES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			X	
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. The 2014 Brentwood General Plan Update EIR does not identify significant mineral resources within the area. In addition, Figure 3.6-6 in the 2014 Brentwood General Plan Update EIR does not show an existing active oil and gas well on the project site. Therefore, the impact regarding the loss of availability of a known mineral resource that would be of value to the region, as well as the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan, would be **less than significant**.

XIII. NOISE

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) 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?		X		
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
c) 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?				X

BACKGROUND

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz). Noise is a subjective reaction to different types of sounds.

Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10-dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, 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. Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool is the average, or equivalent, sound level (Leq), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The Leq is the foundation of the composite noise descriptor, Ldn, and shows very good correlation with community response to noise. The day/night average level (Ldn) is based upon the average noise level over a 24-hour day, with a +10-decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because Ldn represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1-dBA cannot be perceived;
- 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 human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6-dB per doubling of distance from the source,

depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

Railroad Noise

Union Pacific Railroad Line (UPRR) – Currently Not in Use

The Union Pacific Railroad (UPRR) line bisects the City of Brentwood from the northwest corner of the City to the southeast corner of the City. This portion of the railroad line has not been in use since sometime prior to the year 2000. The line is maintained by UPRR as a standby route with no planned use for freight movement. However, there is the potential that future use of the line could be used for commuter passenger service or future freight service.

Rail operations associated with light rail passenger service is generally quiet in comparison to freight train operations. Although light rail operations may include 50 or more operations per day, the 60 dB CNEL contour will generally not extend more than 100 feet from the railroad track centerline.

To conservatively estimate potential noise impacts associated with railroad line activities, it was assumed that up to 10 freight train operations may occur during a 24-hour period. Assuming that each train generated a sound exposure level (SEL) of 100 dB at a distance of 100 feet from the railroad centerline, the Ldn noise level can be calculated using the following equation.

$$Ldn = SEL + 10 \log N_{eq} - 49.4 \text{ dB, where:}$$

SEL is the typical single event sound exposure level of an individual train event (100 dB at a distance of 100 feet), N_{eq} is the sum of the daytime (7 a.m. to 10 p.m.) train events, plus 10 times the number of nighttime (10 p.m. to 7 a.m.) train events (a total of 44), and 49.4 is ten times the logarithm of the number of seconds per day. Assuming an even distribution of trains between daytime, evening and nighttime hours, the Ldn would be 67 dB at 100 feet. The closest UPRR track is located over ½ mile southwest of the site; therefore, railroad noise would not impact the proposed project.

Significance Criteria

The following criteria were used to evaluate the significance of environmental noise resulting from the project:

A significant noise impact would be identified if the project would expose persons to or generate noise levels that would exceed applicable noise standards presented in the City of Brentwood General Plan. Specifically, based upon Table N-1 of the City of Brentwood General Plan, residential uses are considered normally acceptable in ambient noise environments up to 60 dBA L_{dn}, and conditionally acceptable in noise environments up to 75 dBA L_{dn}. However, policy N-1 limits exterior noise levels to 65 dBA L_{dn} for new residential uses adjacent to State Route 4 corridor, major arterials within Brentwood, and noise from the UPRR. The City of Brentwood also establishes an interior noise level criterion of 45 dBA L_{dn} for residential uses.

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant with Mitigation. Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local planning criteria or ordinances, or substantially increase noise levels at noise-sensitive land uses.

An Acoustical Study, dated July 26, 2022, was prepared by Saxelby Acoustics for the proposed project in order to determine in detail the potential for noise impacts to persons on the project site (see Appendix F). The purpose of the study was to quantify the existing and future noise levels at the project site and compare the noise levels to applicable standards. The following discussion and analysis is based on the Acoustical Study prepared by Saxelby Acoustics.

Traffic Noise Increases at Existing Sensitive Receptors

The proposed project is consistent with the City's General Plan and no substantial increases in traffic noise are predicted.

Operational Noise Increases at Existing Sensitive Receptors

The proposed project would include typical residential noise which would be compatible with the adjacent existing residential uses.

Construction Noise

During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. As indicated in Table 3, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dBA Lmax at a distance of 50 feet. Most of the building construction would occur at distances of 50 feet or greater from the nearest residences. Construction noise associated with streets would be similar to noise that would be associated with public works projects, such as a roadway widening or paving projects.

Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

Noise would also be generated during the construction phase by increased truck traffic on area roadways. A project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from the construction site. This noise increase would be of short duration, and would likely occur primarily during daytime hours.

Construction activities are conditionally exempt from the Noise provisions of the General Plan during certain hours. Construction activities are exempt from the noise standard from 7 AM to 6 PM Monday through Friday, and from 8 AM to 5 PM on Saturdays with written approval of the City Engineer or designee.

Although construction activities are temporary in nature and would likely occur during normal daytime working hours, construction-related noise could result in sleep interference at existing noise-sensitive land uses in the vicinity of the construction if construction activities were to occur outside the normal daytime hours. Therefore, impacts resulting from noise levels temporarily exceeding the threshold of significance due to construction would be considered potentially significant.

Transportation and Stationary Noise on Project Site

Transportation Noise at New Sensitive Receptors – Exterior Areas

Compliance with City's standards on new noise-sensitive receptors is not a CEQA consideration. However, this information is provided here so that a determination can be made regarding the ability of the proposed project to meet the requirements of the City of Brentwood for exterior and interior noise levels at new sensitive uses proposed under the project.

The project site is predicted to be exposed to exterior noise levels up to approximately 69 dBA Ldn. This would exceed the City of Brentwood 65 dB Ldn Community Noise Exposure standards for new developments in the vicinity of major arterial roadways. Therefore, exterior noise control measures would be required to ensure that future residents are not exposed to exterior noise levels exceeding City standards. Specifically, 8-foot-tall sound walls were analyzed. Based upon the noise predictions analyzed, exterior noise levels would be reduced to 65 dBA Ldn, or less with use of these barriers.

Transportation Noise at New Sensitive Receptors – Interior Areas

The proposed project would be exposed to exterior noise levels of up to 64 dBA Ldn at the ground floor building facades closest to Lone Tree Way. Second floor locations would not receive substantial shielding from the 8-foot-tall sound wall and would be expected to be exposed to exterior noise levels of up to 69 dBA Ldn.

Modern building construction typically yields an exterior-to-interior noise level reduction of 25 dBA. Therefore, where exterior noise levels are 70 dBA Ldn, or less, no additional interior noise control measures are typically required. For this project, exterior noise levels are predicted to be up to 69 dBA Ldn, resulting in an interior noise level of 44 dBA Ldn based on typical building construction. This would meet the City's 45 dBA Ldn interior noise level standard.

Impacts resulting from exterior noise levels exceeding the threshold of significance due to interior traffic noise would be considered potentially significant.

Stationary Noise at New Sensitive Receptors

Saxelby Acoustics determined that the Alert K-9 Training Center located north of Lots 25-28 could produce peak hour noise levels of 56 dBA Leq and 79 dBA Lmax during daytime (7:00 a.m. to 10:00 p.m.) hours. This exceeds the City of Brentwood daytime noise level standards of 50 dBA Leq and 65 dBA Lmax for impulsive noise sources. Therefore, additional noise control measures would be required to achieve compliance with the City's stationary noise level standards.

The City of Brentwood stationary noise level criteria states that "In no case shall mitigation be required to a level that is less than existing ambient noise levels, as determined through measurements conducted during the same operational period as the subject noise source." Based upon ambient noise level measurements, the average daytime noise levels at the project boundary are 51 dBA Leq and 70 dBA Lmax. It was assumed that operation of this business would not occur during nighttime (10:00 p.m. to 7:00 a.m.) hours. Therefore, the project must comply with stationary noise level limits of 51 dBA Leq and 70 dBA Lmax.

To achieve compliance with the adjusted noise level standards, Saxelby Acoustics analyzed the effect of including a sound wall along the northern project boundary shielding lots 25-28 from the stationary noise source. It was determined that an 8-foot-tall sound wall would reduce stationary noise levels in the outdoor activity areas of the proposed residences to 47 dBA Leq and 70 dBA Lmax. Figure 5 of the Noise Study shows the location of the recommended sound wall.

Conclusion

Implementation of the following mitigation measures would ensure that future residences at the project site would not be subject to exterior and interior noise levels in excess of the City's standards, and ensure that the project would not result in the generation of significant construction noise impacts, resulting in a **less than significant** impact.

Mitigation Measure(s)

Mitigation Measure NOI-1*: Construction activities shall be limited to the hours set forth below:*

- *Monday-Friday 7:00 AM to 6:00 PM;*
- *Saturday 8:00 AM to 5:00 PM*

Construction shall be prohibited on Sundays and City holidays. These criteria shall be included in the grading plan submitted by the applicant/developer for review and approval of the Community Development Director prior to issuance of grading permits. Exceptions to allow expanded construction activities shall be reviewed on a case-by-case basis as determined by the Chief Building Official and/or City Engineer.

Mitigation Measure NOI-2*: The project contractor shall ensure that the following construction noise BMPs are met on-site during all phases of construction:*

- *All equipment driven by internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications. Mobile or fixed "package" equipment (e.g., arc welders, air compressors) shall be equipped with shrouds and noise- control features that are readily available for that type of equipment.*
- *All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.*

- *The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists.*
- *At all times during project grading and construction, stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from residences.*
- *Unnecessary idling of internal combustion engines shall be prohibited.*
- *Construction staging areas shall be established at locations that would create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction activities, to the extent feasible.*
- *Construction site and access road speed limits shall be established and enforced during the construction period.*
- *The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.*
- *Project-related public address or music systems shall not be audible at any adjacent receptor.*
- *Neighbors located adjacent to the construction site shall be notified of the construction schedule in writing.*
- *The construction contractor shall designate a "noise disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall be responsible for determining the cause of the noise complaint (e.g., starting too early, poor muffler, etc.) and instituting reasonable measures as warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.*

Construction noise BMPs shall be included in the grading plan submitted by the developer for review and approval by the Director of Public Works/Engineering prior to grading permit issuance.

***Mitigation Measure NOI-3**: Prior to approval of project improvement plans, the improvement plans for the proposed project shall show that the lots located closest to Lone Tree Way shall be shielded from the Lone Tree Way through the use of eight-foot-tall masonry sound walls per the approval of the City Engineer. Additionally, the project shall include an eight-foot-tall masonry sound wall at the location shown on Figure 5 of the Environmental Noise Assessment prepared by Saxelby Acoustics, to shield proposed residences from stationary noise. Other types of barriers may be employed but shall be reviewed by an acoustical engineer prior to being constructed to ensure that any proposed alternative barrier offers the same level of noise attenuation.*

Response b): Less than Significant. Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

Human and structural response to different vibration levels is influenced by several factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. The threshold for damage to structures ranges from 0.2 to 0.6 peak particle velocity in inches per second (in/sec p.p.v). One-half this minimum threshold or 0.1 in/sec p.p.v. is considered a safe criterion that would protect against architectural or structural damage. The general threshold at which human annoyance could occur is noted as 0.1 in/sec p.p.v.

The primary vibration-generating activities associated with the proposed project would occur during construction when activities such as grading, utilities placement, and roadway construction occur.

Sensitive receptors which could be impacted by construction related vibrations, especially vibratory compactors/rollers, are located approximately 25 to 50 feet or further from the project site. At this distance, construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours.

The primary vibration-generating activities associated with the proposed project would occur during construction when activities such as grading, utilities placement, and parking lot construction occur. Table 4 shows the typical vibration levels produced by construction equipment.

TABLE 4: VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT

Type of Equipment	Peak Particle Velocity at 25 feet (inches/second)	Peak Particle Velocity at 50 feet (inches/second)	Peak Particle Velocity at 100 feet (inches/second)
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210 (Less than 0.20 at 26 feet)	0.074	0.026

Source: *Transit Noise and Vibration Impact Assessment Guidelines.* Federal Transit Administration. May 2006.

Table 4 data indicates that construction vibration levels anticipated for the project are less than the 0.2 in/sec threshold at distances of 26 feet. Sensitive receptors which could be impacted by

construction related vibrations, especially vibratory compactors/rollers, are located approximately 26 feet, or further, from typical construction activities. At these distances construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours. As a result, short-term groundborne vibration impacts would be considered **less than significant** and no mitigation is required**.**

Response c): No Impact. The project site is not located near an existing airport and is not within an existing airport land use plan. The nearest airport, Funny Farm Airfield, is a private airfield located approximately 3 miles east of the project site. Although aircraft-related noise could occasionally be audible at the project site, noise would be extremely minimal. Exterior and interior noise levels resulting from aircraft would be compatible with the proposed project. Therefore, there would be **no impact**.

XIV. POPULATION AND HOUSING

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?			X	

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. The proposed project would directly result in population growth in the area through the proposed construction of 36 residential units, generating approximately 116 additional residents (based on 3.22 persons per household[4]). Resulting growth from the proposed project is consistent with the General Plan Land Use designation for the project site, and would fall within the anticipated population growth levels analyzed in the Brentwood General Plan EIR (2014). As discussed below, the utility systems (e.g., water and sewer) serving the project could accommodate the additional demands created by the project and the project includes infrastructure improvements needed to connect the project to these existing utility systems. In addition, as discussed below in Section XV (Public Services), public service providers such as police and fire, could accommodate the additional demands for service created by the project. As a result, the impact would be **less than significant** with respect to inducing population growth because the demands resulting from said growth could be accommodated by existing utility systems and service providers.

Responses b): Less Than Significant. There are three existing homes or residences located on the project site. However, the proposed project would generate a net increase in residences. Therefore, there is a **less than significant** impact relative to this topic.

[4] City of Brentwood. *2014 Brentwood General Plan Update EIR* [pg. 3.10-32]. July 22, 2014.

XV. PUBLIC SERVICES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
Would the project 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 any of the public services:				
a) Fire protection?			X	
b) Police protection?			X	
c) Schools?		X		
d) Parks?			X	

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. The proposed project is located within the jurisdiction of the Contra Costa County Fire Protection District (CCCFPD). In addition to Administration, Communications, Emergency Medical Services (EMS), Fire Prevention, Support Services, and Training Division, the Operations Division of the CCCFPD staffs 19 engine companies, 5 truck companies, and a Shift Training Captain/Safety Officer daily. The CCCFPD maintains 24 fully staffed stations, and 2 more stations staffed with paid-on-call Reserve Firefighters. Minimum daily staffing is 77 personnel. The 24 on-duty companies are trained and regularly cross-staff numerous specialty response units including 18 wildland fire apparatus, 3 rescue units, a trench rescue unit, a fire rescue boat, and a mobile breathing air support unit. The City of Brentwood is served primarily by Station 92, located at 201 John Muir Parkway, Brentwood. Station 92 is located roughly 2.82 miles southwest of the project site.

The Brentwood General Plan includes nine policies and four actions (Policies CSF 1-1 through 1-3, and 4-1 through 4-6, and Actions CSF 1a, and 4a-c) to see that fire protection services are provided in a timely fashion, are adequately funded, are coordinated between the City and appropriate service agency, and that new development pays their fair share of services. Among the action items included in the Brentwood General Plan that are applicable to the project are:

- Action CSF 1a: Requiring new development to pay their fair share fees of the cost of on and off-site community services and facilities;
- Action CSF 4a: Continue to enforce the California Building Code and the California Fire Code to ensure that all construction implements fire-safe techniques, including fire resistant materials, where required;
- Action CSF 4b: As part of the City's existing development review process for new projects, the City would continue to refer applications to the ECCFPD for determination of the

project's potential impacts on fire protection services. Requirements would be added as conditions of project approval, if appropriate.

The project would comply with these General Plan actions. For example, the City of Brentwood collects development impact fees that support the construction of new fire facilities in the amount of approximately $948 per new single-family residence. In addition to providing additional revenue for fire facilities, the project would be required to comply with all CCCFPD standard conditions of approval related to provision of fire flow, roadway widths, etc. The project is also subject to the City of Brentwood residential life safety sprinkler requirements set forth in Section 15.64.010 of the Municipal Code. Lastly, CCCFPD has an Emergency Medical and Fire Protection Services Community Facilities Districts which generate special tax revenue that can be used for a variety of services, including fire protection. These funds could be used to fund new facilities, and maintain existing facilities and equipment, and pay for salaries and benefits.

CCCFPD currently has adequate capacity to provide fire protection services for the proposed project without inducing demand for an additional fire station[5]. Additionally, the 2014 Brentwood General Plan Update EIR concluded implementation of the General Plan would result in a less than significant impact related to the provision of public services throughout the city.[6] The project is consistent with the General Plan designation for the site; therefore, the additional demand for fire protection services resulting from the proposed project has already been evaluated in the General Plan EIR. Given the project's compliance with the relevant General Plan policies and actions related to fire service, the impact from the proposed project, consistent with the General Plan EIR determination, would be **less than significant** regarding the need for the construction of new fire protection facilities which could cause significant environmental impacts.

Response b): Less than Significant. The City of Brentwood Police Department would provide police protection services to the project site. Currently, the Brentwood Police Department provides law enforcement and police protection services throughout the City. Established in 1948, the Brentwood Police Department is a full service law enforcement agency that is charged with the enforcement of local, State, and Federal laws, and with providing 24-hour protection of the lives and property of the public. The Police Department functions both as an instrument of public service and as a tool for the distribution of information, guidance, and direction.

The Brentwood Police Department services an area of approximately 14 square miles. As of November 2022, the Department had 72 sworn police officers and another 31 civilian support staff. In addition to the permanent staff, the Department had approximately 20 volunteers who are citizens of the community and assist with day to day operations.

[5] Personal Communication with Steve Aubert, CCCFPD Fire Marshal. February 24, 2020.
[6] City of Brentwood. *2014 Brentwood General Plan Update EIR* [pg. 3.12-23]. July 22, 2014

The department is located at 9100 Brentwood Boulevard, approximately 3.21 miles southeast from the project site.

The Brentwood General Plan includes eight policies and five actions (Policies CSF 1-1 through 1-3, and 3-1 through 3-5; and Actions CSF 1a and 3a-d) to direct that police protection services are provided in a timely fashion, are adequately funded, are coordinated between the City and appropriate service agency, and that new development pays their fair share of services. Among the policies and actions items included in the Brentwood General Plan that are applicable to the project are:

- Policy CSF 3-4: Emphasize the use of physical site planning as an effective means of preventing crime. Open spaces, landscaping, parking lots, parks, play areas, and other public spaces should be designed with maximum feasible visual and aural exposure to community residents.
- Policy CSF 3-5: Promote coordination between land use planning and urban design through consultation and coordination with the Police Department during the review of new development applications.
- Action CSF 1a: Requiring new development to pay their fair share fees of the cost of on and off-site community services and facilities;
- Action CSF 3c: As part of the development review process, consult with the police department in order to ensure that the project design facilitates adequate police staffing and that the project addresses its impacts on police services.

The project applicant will be required by the City to comply with these policies and actions. In addition, the City also has Community Facilities Districts which generate special tax revenue that can be used for a variety of services, and which are currently being allocated primarily towards public protection and safety provided by the Brentwood Police Department. These funds could be used to fund new facilities, and maintain existing facilities and equipment, and pay for salaries and benefits.

Therefore, consistent with the General Plan EIR conclusion related to governmental facility impacts resulting from General Plan build-out, the project would have a **less than significant** impact regarding the need for the construction of new police protection facilities which could cause significant environmental impacts.

Response c): Less than Significant with Mitigation. The project site is located within the Liberty Union High School District (LUHSD) and the Brentwood Union School District (BUSD).

LUHSD includes four comprehensive high schools: Liberty High, Freedom High, Heritage High, and Independence High. In addition, the LUHSD includes one continuation high school, La Paloma. According to the LUHSD, the five high schools have a capacity of 6,840. With a total enrollment of 8,219 students, the high schools exceed capacity by 1,379 students.[7]

[7] Liberty Union High School District. Facility Needs Assessment. April 4, 2016.

According to a Facility Needs Assessment prepared for the LUHSD in April of 2016, LUHSD student generation factor for grades nine through 12 is 0.1436 for single-family detached units. With development of approximately 36 residential units, the project is expected to generate approximately 5 new high school students. Available capacity does not exist to accommodate these additional students.

The BUSD consists of eight elementary schools and three middle schools. In 2022, the District had a K-8th grade enrollment of 9,121 with K-8th capacity of 8,881.[8] Therefore, the District is over capacity by approximately 240 students. Utilizing the District's current Student Generation Rates, the approximately 36 units proposed for the proposed project would introduce approximately 15 new K-8th students (36 * 0.427) to the District. Available capacity does not exist to accommodate K-8th students anticipated from the project.

Because the LUHSD is already over capacity; and the BUSD is over capacity for grades K-5th, adding students to the districts may result in further overcrowding and compromising programs. Therefore, the project would have a potentially significant impact regarding the need for the construction of new school facilities which could cause significant environmental impacts.

Under state law, the project would be subject to school facility impact fees to mitigate any potential project-related increases in student enrollment. The LUHSD and BUSD have established the appropriate fee for all development in the City of Brentwood. This fee established by the Districts, following the requirements of State law, is the fair share funding that the City will require of this development, if it is approved. Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "[…] legislative or adjudicative act…involving …the planning, use, or development of real property" (Government Code 65996(b)). Pursuant to Section 65995(h) of the California Government Code, the payment of school fees is considered full and complete mitigation for impacts on school facilities. Consistent with State law, implementation of the following mitigation measure would reduce the impacts to a **less than significant** level.

Mitigation Measure(s)

Mitigation Measure PUB-1: *Prior to building permit issuance for any residential development, the developer shall submit to the Community Development Department written proof from the Liberty Union High School District and Brentwood Union School District that the appropriate school mitigation fees have been paid pursuant to Proposition 1A/SB 50.*

Response d): Less than Significant with Mitigation. The proposed project includes the construction of 36 residential units. Applying the Brentwood standard of 3.22 residents per dwelling unit, the proposed project would create housing for approximately 116 additional residents. The Brentwood General Plan calls for 5 acres of park per 1,000 residents. The proposed project would thus require approximately 0.58 acres of park space for these additional residents. The proposed project includes a 0.58-acre park dedication (Parcel Z), which would satisfy the

[8] Brentwood Union School District. 2022 School Facility Fee Justification Report. August, 2022.

park space requirement called for by the Brentwood General Plan. Therefore, the project would have a **less than significant** impact relative to this topic.

XVI. RECREATION

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Would the project increase 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?			X	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. As explained above in Question 'd' of the Public Services section, the proposed project includes sufficient park land acreage for the 36 residential units. Specifically, as described in Section XV. Public Services of this IS/MND, the proposed project includes a 0.58-acre park dedication (Parcel Z), which would satisfy the park space requirement called for by the Brentwood General Plan. As a result, the proposed project would meet the City's park land requirements. Therefore, the proposed project's impact related to the provision of adequate recreational facilities would be **less than significant**.

XVII. TRANSPORTATION

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Conflict with an applicable program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d) Result in inadequate emergency access?			X	

RESPONSES TO CHECKLIST QUESTIONS

Response a), b): Less than Significant. Access to the site would be via Lone Tree Way. Lone Tree Way is an east-west street in northern Brentwood that provides access to the project site as well as access to a variety of residential and commercial retail uses in this area of Brentwood. The roadway provides access to State Route 4 and is currently a 2-lane facility to the east of Fairway Avenue and adjacent to the project site. The roadway widens just west of the Medallion Drive intersection to a 6-lane facility. The current posted speed limit on Lone Tree Way within the study area is 45 mph.

Lone Tree Way borders the property to the south and would create a new looped private street (i.e. Grace Loop) internal to the project. Pursuant to the requirements of the City's Municipal Code, Lone Tree Way will be improved along the project frontage, and will include roadway widening, a median island, undergrounding of existing overhead utilities and relocation of high-voltage transmission lines, sidewalk, and landscaping. The proposed site plan layout is shown in Figure 3. In addition, the median island that would be developed along the project frontage would restrict the proposed project's Grace Loop ingress/egress access point to be right in/right out-only. The proposed project would include roadway striping that, at minimum, meets Caltrans standards. Separately, while not part of the proposed project, it should be noted that a four-way traffic signal is anticipated to be installed at the Smith Road intersection to accommodate through traffic and new turning motions into and out of the project site, at the time that a new proposed school is constructed nearby.

The proposed project would not have any detrimental effects on the existing and planned bicycle and pedestrian network in Brentwood, nor would it conflict with any plans or planned improvements to these systems. The project is a single family neighborhood surrounded primarily by similar residential uses, and as such, the vast majority of people travelling to and from the site would travel in their vehicles. However, it is possible that residents would travel to and from via bicycle or on foot.

Enhanced street frontage improvements would be provided along Lone Tree Way that would facilitate pedestrian continuity. For example, the proposed project may provide pedestrian and bicycle connectivity from the project site to O'Hara Avenue, to the extent that there are public rights of access, pursuant to Municipal Code Section 16.10.090, unless otherwise built ahead of time by the City of Brentwood. As such, the project would not substantially degrade pedestrian conditions.

Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Per Section 15064.3, analysis of vehicle miles traveled (VMT) attributable to a project is the most appropriate measure of transportation impacts. While changes to driving conditions that increase intersection delay are an important consideration for traffic operations and management, the method of analysis does not fully describe environmental effects associated with fuel consumption, emissions, and public health. Section 15064.3(3) changes the focus of transportation impact analysis in CEQA from measuring impact to drivers to measuring the impact of driving.

A VMT Analysis, dated April 1, 2021, (see Appendix G) was prepared for the project by TJKM. The purpose of the VMT Analysis is to provide an analysis of the expected VMT that would be generated by the proposed residential development.

For VMT forecasting, Contra Costa Transportation Authority Growth Management Program Guidelines Appendix F (02/17/2021, page 103) recommends that the estimated VMT for a proposed project be obtained by either:

- Utilizing existing average trip length data of similar TAZ that contains similar mixes of land uses (in the case of the proposed single-land use Lone Tree Way project, CCTA Model output data are already available for TAZ #30250, which the Project occupies).
- Inserting the proposed project into the CCTA Model. Using the CCTA Model to determine both trip generation and trip lengths allows consistent analysis methodology (basically insert the Lone Tree Way Project into the CCTA Model and let the Model determine trips).

For the proposed Lone Tree Way Project, the first of the above approaches is used. The project is located in TAZ #30250 of the CCTA travel demand model.

The proposed project is located in the city of Brentwood, which has a citywide VMT per capita of 27.8. The VMT threshold for the city would be 85% of 27.8 (15% threshold), which is 23.63. TAZ #30250 currently has 265 housing units. Adding an additional approximately 36 housing units will not have a significant effect on the VMT per capita value for the TAZ. Currently, TAZ #30250 has a VMT per capita value of 23.60 for the year 2021. Since this value is under the threshold of 23.63, the proposed project would have a less than significant impact relative to this topic.

Separately, the project site is currently designated R-VLD by the City of Brentwood General Plan Land Use Map. The R-VLD designation accommodates fairly large lots for single family residences in an identifiable, suburban residential neighborhood, or cluster-style development designed

with open space and other amenities. Neighborhoods with either development type will be part of the Brentwood urban area to be provided with urban public facilities and services. The permitted density range is 1.1 to 3.0 units per gross acre, with a midrange of 2.0 units per gross acre. The proposed project would not require a General Plan Amendment.

Since the General Plan designates the project site for residential uses, consistent with the uses proposed by the project, the traffic generated by the proposed project would fall within the analysis parameters in the General Plan EIR, and would not degrade roadway operations or level of service beyond the levels analyzed in the General Plan EIR.

Conclusion

In summary, impacts related to conflicts with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, would be less than significant. Additionally, based on the above, the proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b) and would be **less than significant**.

Response c): Less than Significant. No site circulation or access issues have been identified that would cause a traffic safety problem/hazard or any unusual traffic congestion or delay that could impede emergency vehicles or emergency access. Parking for the project would be provided by garages and driveways for each residence, and additional on street parking options available for emergency vehicles. The site access, on-site circulation, and parking is adequate. The project will be required to provide a turnaround (i.e., cul-de-sac or hammer head) within Grace Loop, which is a condition of approval by the City in order to maintain solid waste service levels and emergency response times to the neighborhood surrounding the project. Therefore, the project will not increase hazards due to a geometric design feature or incompatible use. In addition, the project will undergo a comprehensive site plan review by the City. This impact would be **less than significant**.

Responses d): **Less than Significant.** Access to the site would be via off Lone Tree Way. All accesses would be designed to City standards that accommodate turning requirements for fire trucks, facilitating entry by emergency vehicles into the project site.

Sufficient emergency access is determined by factors such as number of access points, roadway width, and proximity to fire stations. The land use plan for the proposed project would include two entrances on Lone Tree Way. All lane widths within the project would meet the minimum width that can accommodate an emergency vehicle; therefore, the width of the internal roadways would be adequate for use by residents, visitors, municipal vehicles, and emergency vehicles. In addition, the addition of traffic from project traffic would not result in any significant changes to emergency vehicle response times in the area. Implementation of the proposed project would have a less than significant impact related to emergency access, and would not interfere with an emergency evacuation plan. Therefore, the impact is **less than significant.**

XVIII. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?		X		
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.		X		

Background

Assembly Bill 52 (AB 52) requires a lead agency, prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project, to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation. The City of Brentwood received requests from two California Native American tribes to be informed through formal notification of proposed projects in the City's geographic area. On October 5, 2020, tribal notification letters were sent via certified mail informing the tribes of the proposed project. No requests for consultation were received from either tribe with respect to this project.

RESPONSES TO CHECKLIST QUESTIONS

Responses a.i), a.ii): Less than Significant with Mitigation. The City of Brentwood General Plan and EIR do not identify the site as having prehistoric period cultural resources. Additionally, there are no unique cultural resources known to occur on, or within the immediate vicinity of the project site. The site has previously been used for agricultural uses. No instances of cultural resources or human remains have been unearthed on the project site. However, as discussed in *Section V* (Cultural Resources), the project site has the potential for the discovery of prehistoric, ethnohistoric, or historic archaeological sites that may meet the definition of Tribal Cultural Resources. Although no Tribal Cultural Resources have been documented in the project site, the project is located in a region where cultural resources have been recorded and there remains a

potential that undocumented archaeological resources that may meet the Tribal Cultural Resource definition could be unearthed or otherwise discovered during ground-disturbing and construction activities. Examples of significant archaeological discoveries that may meet the Tribal Cultural Resources definition would include villages and cemeteries.

Due to the possible presence of undocumented Tribal Cultural Resources within the project site, construction-related impacts on tribal cultural resources would be potentially significant. Implementation of Mitigation Measures CUL-1 and CUL-2 would require appropriate steps to preserve and/or document any previously undiscovered resources that may be encountered during construction activities, including human remains. Implementation of these measures, in addition to Mitigation Measure TRI-1 would reduce this impact to a **less than significant** level.

Mitigation Measure(s)

Implement Mitigation Measures CUL-1 and CUL-2.

Mitigation Measure TRI-1: *If cultural resources are discovered during project-related construction activities, all ground disturbances within a minimum of 50 feet of the find shall be halted until a qualified professional archaeologist can evaluate the discovery. The archaeologist shall examine the resources, assess their significance, and recommend appropriate procedures to the lead agency to either further investigate or mitigate adverse impacts. If the find is determined by the lead agency in consultation with the Native American tribe traditionally and culturally affiliated with the geographic area of the project site to be a tribal cultural resource and the discovered archaeological resource cannot be avoided, then applicable mitigation measures for the resource shall be discussed with the geographically affiliated tribe. Applicable mitigation measures that also take into account the cultural values and meaning of the discovered tribal cultural resource, including confidentiality if requested by the tribe, shall be completed (e.g., preservation in place, data recovery program pursuant to PRC §21083.2[i]). During evaluation or mitigative treatment, ground disturbance and construction work could continue on other parts of the project site.*

XIX. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments?			X	
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a), and c): Less than Significant. The following discussion addresses available wastewater treatment plant (WWTP) capacity and wastewater infrastructure to serve the project site.

Wastewater Treatment Plant Capacity

The existing WWTP is located on approximately 70 acres of land owned by the City on the north side of Sunset Road and east of Brentwood Blvd. The WWTP has a current treatment capacity of 5 million gallons per day (mgd) and designed to be expandable to an average dry weather flow (ADWF) capacity of 6.4 mgd. In 2017, the ADWF to the WWTP was 3.8 mgd[9].

The current WWTP system is designed to expand to 10 mgd in 2.5 mgd increments and the City collects development impact fees from new development to fund future expansion efforts. Phase I of the WWTP expansion was completed in 1998-2002, to bring the treatment plant to current levels. Phase II would expand capacity to 7.5 by adding oxidation ditches, secondary clarifiers, filters, and related appurtenances. In January 2020, the City of Brentwood Public Works Department completed the engineering plans for the WWTP Phase II Expansion and solicited bids

[9] Ennis Consulting. 2017. *City of Brentwood Sewer Master Plan [page ii].* August 1, 2017.

for construction. On June 23, 2020, the Brentwood City Council awarded the contract for construction of the WWTP Phase II Expansion with an expected completion date of early 2023. As such, the WWTP would be designed to have sufficient capacity to handle all wastewater flows at build-out per the General Plan.

Buildout of the proposed project would result in the construction of approximately 36 dwelling units generating approximately 116 additional residents (based on 3.22 persons per household). The 2014 Brentwood General Plan Update EIR uses a wastewater generation factor of 85 gallons per day per person of residential development. Therefore, the total wastewater flow from the project site would be about 0.010 MGD. Therefore, the current capacity of the WWTP would be sufficient to handle the wastewater flow from the proposed project. In addition, the proposed project is required to pay sewer impact fees which would contribute towards the cost of future upgrades, when needed. As a result, the proposed project would not have adverse impacts to wastewater treatment capacity.

Wastewater Infrastructure

The 2017 Sewer Master Plan notes a number of existing and future deficient pipes within the sewer collection system requiring the respective parallel pipes or replacement pipes to adequately convey wastewater flows. The wastewater generated by the project would be collected by an internal sewer system, which would connect the existing sewer conveyance line at Lone Tree Way. The existing sewer conveyance line adjacent to the project site is located in the P07 Tributary Area of the 2017 Sewer Master Plan. This tributary area of the Sewer Master Plan does not contain any existing deficient pipes and buildout of the General Plan would not result in future deficient pipes in this tributary area. Therefore, the proposed project would not have adverse impacts to the wastewater infrastructure.

Conclusion

Because the project applicant would pay City sewer impact fees, and adequate long-term wastewater treatment capacity is available to serve full build-out of the project, a **less than significant impact** would occur related to requiring or resulting in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Response b): Less than Significant. The following discussion addresses available water supply infrastructure to serve the project site.

Water Supply System

The City of Brentwood has prepared a 2020 Urban Water Management Plan (UWMP) that predicts the water supply available to the City of Brentwood in normal, single-dry, and multiple-dry years out to 2040. The total supply available in 2040 during all scenarios (normal, single-dry, and multiple-dry) well exceeds the projected demand. The future demand projections included in the UWMP are based upon General Plan land uses. The proposed project's use is consistent with the General Plan; therefore, the proposed project's future water demand was considered in

the UWMP. As a result, with respect to the availability of sufficient water supplies to serve the project, the impact from the proposed project would be **less than significant**.

Water Supply Infrastructure

The project would involve the construction of the necessary water infrastructure to serve the proposed neighborhoods. The project site is located within Zone 1 of the City of Brentwood Water Distribution Network.[10] The 2017 City of Brentwood Water Master Plan includes a list of existing and future capital improvement projects necessary to support the buildout of the General Plan. The project includes installation of 8-inch water lines within the internal street ROWs which would connect to the existing mains on Lone Tree Way. The existing 12-inch water lines on Lone Tree Way were not identified in the 2017 City of Brentwood Water Master Plan as needing system upgrades to support the development of the General Plan; therefore, the proposed project would not have an adverse impacts to the water supply infrastructure.

Conclusion

Because adequate long-term water supply is available to serve full buildout of the proposed project and the project includes the extension of adjacent water line infrastructure that has sufficient off-site conveyance capacity, the project's impact to water supply and infrastructure would be **less than significant**.

Responses d) and e): Less than Significant. The City's Solid Waste Division, a division of the Public Works Department, provides municipal solid waste collection and transfer services for residential and commercial use within the City of Brentwood. The solid waste from Brentwood is disposed of at Keller Canyon County landfill. Keller Canyon Landfill covers 2,600 acres of land; 244 acres are permitted for disposal. The site currently handles approximately 2,500 tons of waste per day, although the permit allows up to 3,500 tons of waste per day to be managed at the facility. The remaining capacity of the landfill's disposal area is estimated at 63,408,410 cubic yards, and the estimated closing date for the landfill is December 31, 2050.[11] Because the 2014 Brentwood General Plan Update EIR determined that solid waste capacity is adequate to serve the demand resulting from General Plan build-out and the proposed project's use is consistent with the General Plan designation for the project site; the project's impact to solid waste would be less than significant. This is a **less than significant** impact.

[10] Ennis Consulting. 2017. *City of Brentwood Water Master Plan.* June 1, 2017.
[11] Cal Recycle. 2023. SWIS Facility/Site Activity Details. Keller Canyon Landfill (07-AA-0032). Available: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/4407?siteID=228

XX. WILDFIRE

Would the project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
d) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X	
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			X	
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X	

EXISTING SETTING

There are no State Responsibility Areas (SRAs) within the vicinity of the Brentwood Planning Area. The City of Brentwood is not categorized as a "Very High" Fire Hazard Severity Zone (FHSZ) by CalFire. Only a few communities within Contra Costa County have portions categorized as a "Very High" FHSZ by CalFire. Although this CEQA topic only applies to areas within a SRA or Very High FHSZ, out of an abundance of caution, these checklist questions are analyzed below.

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less Than Significant. The project site will connect to an existing network of City streets. The proposed circulation improvements would allow for greater emergency access relative to existing conditions. The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, impacts from project implementation would be considered **less than significant** relative to this topic.

Response b): Less Than Significant. The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point. The project site is located in an area that is predominately urban, which

is not considered at a significant risk of wildlife. Therefore, impacts from project implementation would be considered **less than significant** relative to this topic.

Response c): Less Than Significant. The project includes development of infrastructure (water, sewer, and storm drainage) required to support the proposed single-family use. The project site is surrounded by existing and future urban development. The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The project would not require the installation or maintenance of infrastructure that may exacerbate fire risk. Therefore, impacts from project implementation would be considered **less than significant** relative to this topic.

Response d): Less Than Significant. The proposed project would require the installation of storm drainage infrastructure to ensure that storm waters properly drain from the project site and do not result in downstream flooding or major drainage changes. Storm drainage would be conveyed to the on-site storm drain infrastructure, which will discharge to the City's storm drainage system. Various storm drainage supporting structures and inlets will be located throughout the project site directing the direction of flow into the on-site storm drain infrastructure. Additionally, the proposed project would include permeable pavements for the streets and driveways.

Upon development of the site, stormwater would flow primarily to the on-site storm drain infrastructure. Additionally, the project site is not located within a FEMA designated flood hazard zone. Furthermore, because the site is essentially flat and located in an existing urbanized area of the City, downstream landslides would not occur.

Landslides include rockfalls, deep slope failure, and shallow slope failure. Factors such as the geological conditions, drainage, slope, vegetation, and others directly affect the potential for landslides. One of the most common causes of landslides is construction activity that is associated with road building (i.e. cut and fill). The project site is relatively flat; therefore, the potential for a landslide in the project site is essentially non-existent.

Overall, impacts from project implementation would be considered **less than significant** relative to this topic.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Does the project have the potential to substantially 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, substantially 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?			X	
b) 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)?			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. Although relatively unlikely, based upon the current land cover types found on-site, special- status wildlife species and/or federally- or state-protected birds not covered under the ECCCHCP could be occupying the site. In addition, although unlikely, the possibility exists for subsurface excavation of the site during grading and other construction activities to unearth deposits of cultural significance. However, this IS/MND includes mitigation measures that would reduce any potential impacts to less than significant levels. Therefore, the proposed project would have **less than significant** impacts related to degradation of the quality of the environment, reduction of habitat, threatened species, and/or California's history or prehistory.

Response b): Less than Significant. The proposed project in conjunction with other development within the City of Brentwood could incrementally contribute to cumulative impacts in the area. However, mitigation measures for all potentially significant project-level impacts identified for the proposed project in this IS/MND have been included that would reduce impacts to less-than-significant levels. As such, the project's incremental contribution towards cumulative impacts would not be considered significant. In addition, all future discretionary development projects in the area would be required to undergo the same environmental analysis and mitigate any potential impacts, as necessary. Therefore, the proposed project would not have any impacts that would be cumulatively considerable, and impacts would be **less than significant**.

Response c): Less than Significant. The proposed project site is located within areas of existing and planned development and is consistent with the land use designation for the site. Due to the consistency of the proposed land use, substantial adverse effects on human beings are not anticipated with implementation of the proposed project. It should be noted that during construction activities, the project could result in potential impacts related to soil erosion and surface water quality impacts, and noise. However, this IS/MND includes mitigation measures that would reduce any potential impacts to a less-than-significant level. In addition, the proposed project would be designed in accordance with all applicable building standards and codes to ensure adequate safety is provided for the future residents of the proposed project. Therefore, impacts related to environmental effects that could cause adverse effects on human beings would be **less than significant**.

REFERENCES

- 2005 Ozone Strategy (BAAQMD 2006). January 2006.
- 2014 Brentwood General Plan Update EIR (City of Brentwood, 2014). July 2014.
- 2014 Brentwood General Plan Update (City of Brentwood, 2014). July 2014.
- 2021. City of Brentwood Development Fee Program (City of Brentwood, 2021). July 1, 2021.
- Arborist Report for 7590 & 7650 Lone Tree Way, Brentwood. (Traverso Tree Service, 2022). June 9, 2022.
- Archaeological Assessment Report – 7590 and 7650 Lone Tree Way, City of Brentwood, Contra Costa County (Alta Archaeological Consulting, 2022). March 24, 2022.
- California Department of Resources Recycling and Recovery (CalRecycle). 2023. SWIS Facility/Site Activity Details. Keller Canyon Landfill (07-AA-0032).
- CEQA Guidelines (BAAQMD, 2017). May 2017.
- City of Brentwood. 2021. 2020 Urban Water Management Plan. June 2021. Revised December 2021.
- East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (East Contra Costa Habitat Conservation Plan Association, 2006). October 2006.
- Environmental Noise Assessment, 7590 & 7650 Lone Tree Way Subdivision. (Saxelby Acoustics, 2022). July 26, 2022.
- Environmental Site Assessment, 7590, 7600 & 7650 Lone Tree Way, Brentwood, CA 94513. Phase I. (Allwest, 2021). April 15, 2021
- Geotechnical Investigation, 7590 and 7650 Lone Tree Way (ENGEO, 2022). March 24, 2022.
- Personal Communication with Steve Aubert, Contra Costa County Fire Protection District (CCCFPD) Fire Marshal. February 24, 2020.
- Revised San Francisco Bay Area Ozone Attainment Plan for the 1-Hour National Ozone Standard (BAAQMD, 1999). June 1999.
- School Facility Needs Analysis for Brentwood Union School District (Cooperative Strategies, 2019) May 9, 2019.
- Traffic Impact Study, 7590 & 7650 Lone Tree Way. (Abrams Associates Traffic Engineering, Inc.) April 5, 2022.
- U.S. Fish and Wildlife Service San Joaquin Kit Fox Survey Protocol for the Northern Range (Sacramento Fish and Wildlife Office, 2011). June 1999.
- 7590 & 7650 Lone Tree Way VMT Analysis Memo. (TJKM, 2022). April 1, 2021.

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Appendix A: Planning Survey Report and Arborist Report

Application Form and Planning Survey Report

To Comply With and Receive Permit Coverage Under The East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan

Please complete this application to apply for take authorization under the state and federal East Contra Costa County HCP/NCCP incidental take permits. The East Contra Costa County Habitat Conservancy ("Conservancy") or local jurisdiction (City of Brentwood, City of Clayton, City of Oakley, City of Pittsburg, and Contra Costa County) may request more information in order to deem the application complete.

I. PROJECT OVERVIEW

PROJECT INFORMATION	
PROJECT NAME: 16+/- Acre Lone Tree Way Site	
PROJECT TYPE: ☒ Residential ☐ Commercial ☐ Transportation ☐ Utility ☐ Other	
PROJECT DESCRIPTION (BRIEF): Construction of a 37-lot residential subdivision. A detailed project description is included in Attachment A.	
PROJECT ADDRESS/LOCATION: North of Lone Tree Way and just east of O'Hara Avenue in the City of Brentwood, Contra Costa County, California.	
PARCEL/PROJECT SIZE (ACRES): 16.3+/- acres	
PROJECT APN(S): 018-060-006 and 018-060-007	
APPLICATION SUBMITTAL DATE: February 2022	**FINAL PSR DATE:** (City/County/Conservancy use)
LEAD PLANNER: Erik Nolthenius **JURISDICTION:** ☒ City of Brentwood ☐ City of Clayton ☐ City of Oakley ☐ City of Pittsburg ☐ Contra Costa County ☐ Participating Special Entity* *Participating Special Entities are organizations not subject to the authority of a local jurisdiction. Such organizations may include school districts, irrigation districts, transportation agencies, local park districts, geological hazard abatement districts, or other utilities or special districts that own land or provide public services.	
DEVELOPMENT FEE ZONE: ☒ Zone I ☐ Zone II ☐ Zone III ☐ Zone IV See figure 9-1 of the HCP/NCCP at www.cocohcp.org for a generalized development fee zone map. Detailed development fee zone maps by jurisdiction are available from the jurisdiction.	

PROJECT APPLICANT INFORMATION	
APPLICANT'S NAME: Seecon Financial & Construction Co.	
AUTHORIZED AGENT'S NAME AND TITLE: Jackie Seeno	
PHONE NO.: (925) 671-7711	**APPLICANT'S E-MAIL:** jseeno@seenohomes.com
MAILING ADDRESS: 4021 Port Chicago Hwy., Concord, CA 94520	

BIOLOGIST INFORMATION[1]	
BIOLOGICAL/ENVIRONMENTAL FIRM: Moore Biological Consultants	
CONTACT NAME AND TITLE: Diane S. Moore, M.S.	
PHONE NO.: (209) 745-1159	**CONTACT'S E-MAIL:** moorebio@softcom.net
MAILING ADDRESS: Moore Biological Consultants, 10330 Twin Cities Rd., Ste. 30, Galt, California 95632	

[1] A USFWS/CDFW-approved biologist (project-specific) is required to conduct the surveys. Please submit biologist(s) approval request to the Conservancy.

II. PROJECT DETAILS

Please complete and/or provide the following attachments:

1) **Project Description**
   Attach as **Attachment A: Project Description**. Provide a detailed written description that concisely and completely describes the project and location. Include the following information:
   - All activities proposed for the site or project, including roads utilized, construction staging areas, and the installation of underground facilities, to ensure the entire project is covered by the HCP/NCCP permit
   - Proposed construction dates, including details on construction phases, if applicable
   - Reference a City/County application number for the project, if applicable
   - General Best Management Practices, if applicable
   - If the project will have temporary impacts, please provide a restoration plan describing how the site will be restored to pre-project conditions, including revegetation seed mixes or plantings and timing

2) **Project Vicinity Map**
   Provide a project vicinity map. Attach as **Figure 1** in **Attachment B: Figures**.

3) **Project Site Plans**
   Provide any project site plans for the project. Attach as **Figure 2** in **Attachment B: Figures**.

4) **CEQA Document**
   Indicate the status of CEQA documents prepared for the project. Provide additional comments below table if necessary.

Type of Document	Status	Date Completed
☒ Initial Study	Not yet initiated	
☐ Notice of Preparation		
☐ Draft EIR		
☐ Final EIR		
☐ Notice of Categorical Exemption		
☐ Notice of Statutory Exemption		
☐ Other (describe)		

III. EXISTING CONDITIONS AND IMPACTS

Please complete and/or provide the following attachments:

1) **Field-Verified Land Cover Map**[2]
   Attach a field-verified land cover map in **Attachment B: Figures** and label as **Figure 3**. The map should contain all land cover types present on-site overlaid on aerial/satellite imagery. Map colors for the land cover types should conform to the HCP/NCCP (see *Figure 3-3: Landcover in the Inventory Area* for land cover type legend).

2) **Photographs of the Project Site**
   Attach representative photos of the project site in **Attachment B: Figures** and label as **Figure 4**. Please provide captions for each photo.

[2] For PSEs and city or county public works projects, please also identify permanent and temporary impact areas by overlaying crosshatching (permanent impacts) and hatching (temporary impacts) on the land cover map.

3) Land Cover Types and Impacts and Supplemental Tables

- For all terrestrial land cover types please provide calculations to the nearest **hundredth of an acre (0.01)**.
  For aquatic land cover types please provide calculations to the nearest **thousandth of an acre (0.001)**.
- **Permanent Impacts** are broadly defined in the ECCC HCP/NCCP to include all areas removed from an undeveloped or habitat-providing state and includes land in the same parcel or project that is not developed, graded, physically altered, or directly affected in any way but is isolated from natural areas by the covered activity. Unless such undeveloped land is dedicated to the Preserve System or is a deed-restricted creek setback, the development mitigation fee will apply (if proposed, would require Conservancy approval).
- **Temporary Impacts** are broadly defined in the ECCC HCP/NCCP as any impact on vegetation or habitat that does not result in permanent habitat removal (i.e. vegetation can eventually recover).
- If **wetland (riparian woodland/scrub, wetland, or aquatic)** land cover types are present on the parcel but will not be impacted please discuss in the following section 4) Jurisdictional Wetlands and Waters. Wetland impact fees will only be charged if wetland features are impacted. However, development fees will apply to the entire parcel.
- **Stream** land cover type is considered a linear feature where impacts are calculated based on length impacted. The acreage within a stream, below Top of Bank (TOB), must be assigned to the adjacent land cover type(s). Insert area of impact to stream below TOB in parentheses after the Land Cover acreage number (e.g., Riparian Woodland/Scrub: 10 (0.036) – where 10 is the total impacted acreage including 0.036 acre, which is the acreage within stream TOB). Complete following supplemental **Stream Feature Detail** table to provide information for linear feet.
- **Total Impacts** acreage should be the total parcel acreage (development project) or project footprint acreage (rural infrastructure or utility project).

Table 1: Land Cover Types and Impacts

Land Cover Type	Permanent Impacts	Temporary Impacts	*Proposed for HCP/NCCP Dedication on the Parcel (Requires Conservancy Approval)*	
			Stream Setback	*Preserve System Dedication*
Grassland				
Annual Grassland				
Alkali Grassland				
Ruderal	13.2			
Shrubland				
Chaparral and Scrub				
Woodland				
Oak Savannah				
Oak Woodland				
Riparian				
Riparian Woodland/Scrub				
Wetland				
Permanent Wetland				
Seasonal Wetland				
Alkali Wetland				
Aquatic				
Aquatic (Reservoir/Open Water)				
Slough/Channel				
Pond				
Stream (in linear feet)	-	-	-	-
Irrigated Agriculture				
Pasture				
Cropland				
Orchard				
Vineyard				
Other				
Nonnative woodland				
Wind turbines				
Developed (not counted toward Fees)				
Urban	3.1			
Aqueduct				
Turf				
Landfill				
TOTAL IMPACTS	16.3			

Identify any uncommon vegetation and uncommon landscape features[3]:

Supplemental to Table 1: Uncommon Vegetation and Landscape Features

	Permanent Impacts	Temporary Impacts
Uncommon Grassland Alliances		
Purple Needlegrass Grassland		
Blue Wildrye Grassland		
Creeping Ryegrass Grassland		
Wildflower Fields		
Squirreltail Grassland		
One-sided Bluegrass Grassland		
Serpentine Bunchgrass Grassland		
Saltgrass Grassland		
Alkali Sacaton Bunchgrass Grassland		
☐ Other		
Uncommon Landscape Features		
Rock Outcrops		
Caves		
Springs and seeps		
Scalds		
Sand Deposits		
☐ Mines[4]		
☐ Buildings (bat roosts)[3]		
☒ Potential nest sites (trees or cliffs)[3]	71 trees (most will be removed)	

Please provide details of impacts to stream features:

Stream Name: None

Watershed:

Supplemental to Table 1: Stream Feature Detail[5]

Stream Width	Stream Type[6]	Permanent Impacts (linear feet)[7]	Temporary Impacts (linear feet)[7]
☐ ≤ 25 feet wide ☐ > 25 feet wide	☐ Perennial ☐ Intermittent ☐ Ephemeral, 3rd or higher order ☐ Ephemeral, 1st or 2nd order		
☐ ≤ 25 feet wide ☐ > 25 feet wide	☐ Perennial ☐ Intermittent ☐ Ephemeral, 3rd or higher order ☐ Ephemeral, 1st or 2nd order		
☐ ≤ 25 feet wide ☐ > 25 feet wide	☐ Perennial ☐ Intermittent ☐ Ephemeral, 3rd or higher order ☐ Ephemeral, 1st or 2nd order		

[3] These acreages are for Conservancy tracking purposes. Impacts to these uncommon vegetation and landscape features should be accounted for within the land cover types in Table 1 (e.g., x acres of purple needlegrass in this supplemental table should be accounted for within annual grassland in Table 1).
[4] Insert amount/number, not acreage. Provide additional information on these features in Attachment A: Project Description.
[5] Use more than 1 row as necessary to describe impacts to streams on site.
[6] See glossary (Appendix A) for definition of stream type and order.
[7] Stream length is measured along stream centerline, based on length of impact to any part of the stream channel, TOB to TOB.

4) Summary of Land Cover Types

Please provide a written summary of descriptions for land cover types found on site including characteristic vegetation.

A survey of the site was conducted on January 5 2022.

The site consists of leveled grassland that is periodically disturbed by disking, with three residences and several trees. The site consists of "Ruderal Grassland" and "Urban/Developed" land cover types. Land uses in the project vicinity are primarily residential and the site is surrounded by on all sides by developed parcels that vary in size. The site is entirely surrounded by parcels that are mapped as the "Urban/Developed" land cover type on the ECCCHCP/NCCP Development Fee Zones Map. The proposed project may be best described as an "infill redevelopment" project.

Ruderal Grassland: The project site primarily consists of ruderal grassland that has been fallow for decades (see Figures 4a – 4g). Grasslands in the site have been highly disturbed by historical farming (orchards), routine mowing and/or disking, and other human activities. Dominant grasses in the site include oats (*Avena* sp.), ripgut brome (*Bromus diandrus*), and wall barley (*Hordeum murinum*). Other grassland species such as Russian thistle (*Salsola tragus*), filaree (*Erodium sp*.), common mallow (*Malva neglecta*), yellow star-thistle (*Centaurea solstitialis*), and rose clover (*Trifolium hirtum*) are intermixed with the grasses.

Urban/Developed: There are residential areas in the project site, one in the southwest corner of the site with 2 homes and one in the southeast corner of the site with one home. The homes have graveled driveway entrances, a few associated sheds and structures and other areas that are highly disturbed by human activities (Figure 3, 4e and 4f). These residential areas are mapped as "Urban/Developed" areas on the ECCHCP land fee zone maps. The site includes the approximate north half of Lone Tree Way, which also falls under the Urban/Developed land cover type. Lastly, there is a corral area in the northwest part of the site that has been established for several years. It consists of corral structures and old livestock-related sheds; this portion of the site is also considered Urban/Developed (see Figure 4g).

There is a total of 71 trees in the site, a majority of which are associated with residential areas in the southern corners of the site. Trees in the site are common ornamental species used for landscaping of homes such as fruitless mulberry (*Morus alba*), cottonwoods (*Populus fremontii*), ornamental pines (*Pinus sp*.), and live oak (*Quercus agrifolia*). Other trees and shrubs in the site were either fruit (olives, lemon, pomegranate) or nut (almonds). There are a few trees along the fences bordering the site and it is not entirely clear if some of these trees are on the site or just off the site.

5) Jurisdictional Wetlands and Waters

If wetlands and waters are present on the project site, project proponents must conduct a delineation of jurisdictional wetlands and waters. Jurisdictional wetlands and waters are defined on pages 1-18 and 1-19 of the ECCC HCP/NCCP as the following land cover types: permanent wetland, seasonal wetland, alkali wetland, aquatic, pond, slough/channel, and stream. It should be noted that these features differ for federal and state jurisdictions. If you have identified any of these land cover types in Table 1, complete the section below.

a) Attach the wetland delineation report as **Attachment E: Wetland Delineation.** If a wetland delineation has not been completed, please explain below in section 4c.

b) Please check the following permits the project may require. Please submit copies of these permits to the Conservancy prior to the start of construction:

- ☐ CWA Section 404 Permit[8]
- ☐ CWA Section 401 Water Quality Certification
- ☐ Waste Discharge Requirements
- ☐ Lake and Streambed Alteration Agreement

[8] The USACE Sacramento District issued a Regional General Permit 1 (RGP) related to ECCC HCP/NCCP covered activities. The RGP is designed to streamline wetland permitting in the entire ECCC HCP/NCCP Plan Area by coordinating the avoidance, minimization, and mitigation measures in the Plan with the Corps' wetland permitting requirement. Applicants seeking authorization under this RGP shall notify the Corps in accordance with RGP general condition number 18 (Notification).

c) Provide any additional information on impacts to jurisdictional wetland and waters below, including status of the permit(s):

An assessment of potentially jurisdictional Waters of the U.S. or wetlands in the site was undertaken on January 5, 2022. There are no potentially jurisdictional Waters of the U.S. or wetlands of any type in the site. The site consists primarily of highly disturbed upland ruderal grassland vegetation and the on-site soils appear well draining.

6) Species-Specific Planning Survey Requirements

Based on the land cover types found on-site and identified in Table 1, check the applicable boxes in Table 2a.

Table 2a. Species –Specific Planning Survey Requirements

Land Cover Type in Project Area	Required Survey Species	Habitat Element in Project Area	Planning Survey Requirement[9]	Info in HCP
☒ Grasslands, oak savannah, agriculture, or ruderal	☐ San Joaquin kit fox	Assumed if within modeled range of species	If within modeled range of species, identify and map potential breeding or denning habitat within the project site and a 250-ft radius around the project footprint.	pp. 6-37 to 6-38
	☒ Western burrowing owl	Assumed	Identify and map potential breeding habitat within the project site and a 500-ft radius around the project footprint. Please note the HCP requires buffers for occupied burrows. Surveys may need to encompass an area larger than the project footprint.	pp. 6-39 to 6-41
☐ Aquatic (ponds, wetlands, streams, sloughs, channels, and marshes)	☐ Giant garter snake	Aquatic habitat accessible from the San Joaquin River	Identify and map potential habitat.	pp. 6-43 to 6-45
	☐ California tiger salamander	Ponds and wetlands Vernal pools Reservoirs Small lakes	Identify and map potential breeding habitat. Document habitat quality and features. Provide the Conservancy with photo-documentation and report.	pp. 6-45
	☐ California red-legged frog	Slow-moving streams, ponds and wetlands	Identify and map potential breeding habitat. Document habitat quality and features. Provide the Conservancy with photo-documentation and report.	p. 6-46
	☐ Covered shrimp	Seasonal wetlands Vernal pools Sandstone rock outcrops Sandstone depressions	Identify and map potential habitat. Please note the HCP requires a 50 foot non-disturbance buffer from seasonal wetlands that may be occupied by covered shrimp. Surveys may need to encompass an area larger than the project footprint.	pp. 6-46 to 6-48
☒ Any	☐ Townsend's big-eared bat	Rock formations with caves Mines Abandoned buildings outside urban area	Map and document potential breeding or roosting habitat.	pp. 6-36 to 6-37
	☒ Swainson's hawk	Potential nest sites within 1,000 feet of project	Inspect large trees for presence of nest sites. Document and map.	pp. 6-41 to 6-43
	☒ Golden Eagle	Potential nest sites with ½ mile of project	Inspect large trees for presence of nest sites. Document and map.	pp. 6-38 to 6-39

Surveys for all covered species must be conducted by a qualified biologist (USFWS/CDFW project-specific approved). Please submit biologist approval request to the East Contra Costa County Habitat Conservancy.
Surveys for all covered species must be conducted according to the respective USFWS or CDFW survey protocols, as identified in Chapter 6.4.3 in the HCP/NCCP.

[9] The planning survey requirements in this table are not comprehensive. Please refer to Chapter 6.4.3 in the ECCC HCP/NCCP for more detail.

7) Planning Survey Species Habitat Maps

Provide Planning Survey Species Habitat Maps as required in Table 2a, attach as **Figure 5** in **Attachment B: Figures**.

8) Results of Species Specific Surveys

Provide a written summary describing the results of the planning surveys. Please discuss the location, quantity, and quality of suitable habitat for specified covered wildlife species on the project site.

General Setting: The 16.3+/- acre project site is in Brentwood, in Contra Costa County, California (Figure 1). The site is within Section 1, in Township 1 North, Range 2 East of the USGS 7.5-minute Brentwood topographic quadrangle. The project site is at an elevation of approximately 75 feet above mean sea level.

Surrounding land uses in this portion of Brentwood are primarily residential intermixed with some larger ranchette-style homes. Lone Tree Way borders the south edge of the site and larger residential parcels border the remaining edges of the site (Figure 3).

Western Burrowing Owl: The project site contains ruderal grassland and is within the range of western burrowing owl (*Athene cunicularia*). The site was inspected for burrowing owls and ground squirrel burrows with evidence of burrowing owl occupancy (i.e., white wash, pellets, feathers). Comprehensive inspection of potential burrowing owl habitat was accomplished by walking meandering transects throughout the property. No ground squirrels, their burrows, or burrowing owls were observed in the site.

The Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB, 2022) does not contain any records of burrowing owl in the site, and the nearest record is just south of the site, with a portion of the record being within 500 feet of the site (Figure 5b). This record is from 2006 in an area that has since been developed in to residential uses. There are also a few records of western burrowing owl further from the site (Figure 5b).

Swainson's Hawk: The site contains areas of ruderal grassland and is along the western edge of the range of Swainson's hawks (*Buteo swainsoni*). There are 71 trees in the site that are potentially suitable for nesting birds, although most of the on-site trees are unlikely to be used by nesting hawks of any species due to their small sizes. There are also several potential nest trees near and visible from the site. Trees in the site and visible from the site were inspected for raptor stick nests. No raptor stick nests were observed in any of the trees within the site or in trees viewable from the site. No Swainson's hawks were observed during the field survey, which was conducted outside of the nesting season of this species. CDFW's CNDDB (2022) contains no occurrences of Swainson's hawk within 1,000 feet of the site (Figure 5b). There are two records of Swainson's hawk recorded in the CNDDB (2022) just outside of this 1,000-foot buffer.

Golden Eagle: The site contains ruderal grassland and is within the range of golden eagles (*Aquila chrysaetos*). CDFW's CNDDB contains no occurrences of golden eagle within 0.5 miles of the site or within the larger geographical area depicted in Figure 5b. There are 71 trees in the site that are potentially suitable for nesting golden eagles, although most of the on-site trees are unlikely to be used by nesting raptors of any species due to their small sizes. There are several potential nest trees near and visible from the site. Trees on the site and visible from the site were inspected for raptor stick nests and none were observed. No golden eagles were observed and this species nests more often on cliffs in remote natural areas than in trees near urban areas.

9) Covered and No-Take Plants

Please check the applicable boxes in Table 2b based on the land cover types found in the project area. If suitable land cover types are present on site, surveys must be conducted using approved CDFW/USFWS methods during the appropriate season for identification of covered and no-take species (see page 6-9 of the ECCC HCP/NCCP). Reference populations of covered and no-take plants should be visited, where possible, prior to conducting surveys to confirm that the plant species is visible and detectable at the time surveys are conducted. <u>In order to complete all the necessary covered and no-take plant surveys, spring, summer, and fall surveys may be required.</u>

Table 2b. Covered and No-Take Plant Species

Plant Species	Covered (C) or No-Take (N)	Associated Land Cover Type	Typical Habitat or Physical Conditions, if Known	Typical Blooming Period	Suitable Land Cover Type Present
Adobe navarretia (*Navarretia nigelliformis* ssp. *radians*) [a]	C	Annual Grassland	Generally found on clay barrens in Annual Grassland [b]	Apr–Jun	☐ Yes ☒ No
Alkali milkvetch (*Astragalus tener* ssp. *tener*)	N	Alkali grassland Alkali wetland Annual grassland Seasonal wetland	Generally found in vernally moist habitat in soils with a slight to strongly elevated pH	Mar–Jun	☐ Yes ☒ No
Big tarplant (*Blepharizonia plumosa*)	C	Annual grassland	Elevation below 1500 feet [d] most often on Altamont Series or Complex soils	Jul–Oct	☐ Yes ☒ No
Brewer's dwarf flax (*Hesperolinon breweri*)	C	Annual grassland Chaparral and scrub Oak savanna Oak woodland	Generally, restricted to grassland areas within a 500+ buffer from oak woodland and/or chaparral/scrub [d]	May–Jul	☐ Yes ☒ No
Brittlescale (*Atriplex depressa*)	C	Alkali grassland Alkali wetland	Restricted to soils of the Pescadero or Solano soil series; generally found in southeastern region of plan area [d]	May–Oct	☐ Yes ☒ No
Caper-fruited tropidocarpum (*Tropidocarpum capparideum)*	N	Alkali grassland		Mar–Apr	☐ Yes ☒ No
Contra Costa goldfields (*Lasthenia conjugens*)	N	Alkali grassland Alkali wetland Annual grassland Seasonal wetland	Generally found in vernal pools	Mar–Jun	☐ Yes ☒ No
Diablo Helianthella (*Helianthella castanea*)	C	Chaparral and scrub Oak savanna Oak woodland	Elevations generally above 650 feet [d]	Mar–Jun	☐ Yes ☒ No
Diamond-petaled poppy (*Eschscholzia rhombipetala*)	N	Annual grassland		Mar–Apr	☐ Yes ☒ No
Large-flowered fiddleneck (*Amsinckia grandiflora*)	N	Annual grassland	Generally on clay soil	Apr–May	☐ Yes ☒ No
Mount Diablo buckwheat (*Eriogonum truncatum*)	N	Annual grassland Chaparral and scrub	Ecotone of grassland and chaparral/scrub	Apr–Sep	☐ Yes ☒ No
Mount Diablo fairy-lantern (*Calochortus pulchellus*)	C	Annual grassland Chaparral and scrub Oak savanna Oak woodland	Elevations generally between 650 and 2,600[d]	Apr–Jun	☐ Yes ☒ No
Mount Diablo Manzanita (*Arctostaphylos auriculata*)	C	Chaparral and scrub	Elevations generally between 700 and 1,860 feet; restricted to the eastern and northern flanks of Mt. Diablo [d] and the vicinity of Black Diamond Mines	Jan–Mar	☐ Yes ☒ No
Recurved larkspur (*Delphinium recurvatum*)	C	Alkali grassland Alkali wetland		Mar–Jun	☐ Yes ☒ No
Round-leaved filaree (*California macrophylla*) [c]	C	Annual grassland		Mar–May	☐ Yes ☒ No
San Joaquin spearscale (*Extriplex joaquiniana*) [e]	C	Alkali grassland Alkali wetland		Apr–Oct	☐ Yes ☒ No
Showy madia (*Madia radiata*)	C	Annual grassland Oak savanna Oak woodland	Primarily occupies open grassland or grassland on edge of oak woodland	Mar–May	☐ Yes ☒ No

[a] The species *Navarretia nigelliformis* subsp. *nigelliformis* is no longer considered to occur within Contra Costa County based on specimen annotations at the UC and Jepson Herbaria at the University of California Berkeley as well as the opinions of experts in the genus. This taxon is now recognized as *Navarretia nigelliformis* subsp. *radians.* Any subspecies of *Navarretia nigelliformis* encountered as a part of botanical surveys in support of a PSR should be considered as covered under this HCP/NCCP.

[b] Habitat for the *Navarretia nigelliformis* subspecies that occurs within the inventory are is inaccurately described in the HCP/NCCP as vernal pools. The entity within the Inventory generally occupies clay barrens within Annual Grassland habitat, which is an upland habitat type.

[c] From California Native Plant Society. 2007. *Inventory of Rare and Endangered Plants* (online edition, v7-07d). Sacramento, CA. Species may be identifiable outside of the typical blooming period; a professional botanist shall determine if a covered or no take plant occurs on the project site. Reference population of covered and no-take plants should be visited, where possible, prior to conducting surveys to confirm that the plant is visible and detectable at the time surveys are conducted.

[d] See Species Profiles in Appendix D of the Final HCP/NCCP. Reference populations of covered and no-take plants should be visited, where possible, prior to conducting surveys to confirm that the plant species is visible and detectable at the time surveys are conducted.

[e] In the recent update to the Jepson eflora (JFP 2013) *Atriplex joaquinana* has been circumscribed and segregated into a new genus called *Extriplex* based on the work of Elizabeth Zacharias and Bruce Baldwin (2010). The etymology of the genus *Extriplex* means, "beyond or outside Atriplex".

10) Results of Covered and No-Take Plant Species

Provide a written summary describing the results of the planning surveys conducted as required in Table 2b. Describe the methods used to survey the site for all covered and no-take plants, including the dates and times of all surveys conducted (see Tables 3-8 and 6-5 of the ECCC HCP/NCCP for covered and no-take plants), including reference populations visited prior to conducting surveys.

If any covered or no-take plant species were found, include the following information in the results summary:

- Description and number of occurrences and their rough population size.
- Description of the "health" of each occurrence, as defined on pages 5-49 and 5-50 of the HCP/NCCP.
- A map of all the occurrences.
- Justification of surveying time window, if outside of the plant's blooming period.
- The CNDDB form(s) submitted to CDFW (if this is a new occurrence).
- A description of the anticipated impacts that the covered activity will have on the occurrence and how the project will avoid impacts to all covered and no-take plant species. If impacts to covered plant species cannot be avoided and plants will be removed by covered activity, the Conservancy must be notified and has the option to salvage the covered plants. All projects must demonstrate avoidance of all six no-take plants (see table 6-5 of the HCP/NCCP).

Survey Methods

A survey to assess potentially suitable habitat for special-status plants was undertaken on January 5, 2022. The site was systematically searched by walking throughout the site.

Survey Results and Discussion

The site contains areas of ruderal grassland that is periodically mowed and/or disked. Due to an absence of potentially suitable habitat for special-status plants, focused surveys during the blooming period of each species in Table 2b were not warranted.

IV. SPECIES-SPECIFIC AVOIDANCE AND MINIMIZATION REQUIREMENTS

Please complete and/or provide the following attachments:

1) Species-Specific Avoidance and Minimization for Selected Covered Wildlife

Complete the following table and check the applicable box for covered species determined by the planning surveys.

Table 3. Summary of Applicable Preconstruction Surveys, Avoidance and Minimization, and Construction Monitoring Requirements[10]

Species	Preconstruction Survey Requirements	Avoidance and Minimization Requirements	Construction Monitoring Required	Info in HCP
☐ San Joaquin kit fox	• On project footprint and 250-ft radius, map all dens (>5 in. diameter) and determine status • Provide written survey results to USFWS within 5 working days after surveying	• Monitor dens • Destroy unoccupied dens • Discourage use of occupied (non-natal) dens	• Establish exclusion zones (>50 ft for potential dens, and >100 ft for known dens) • Notify USFWS of occupied natal dens	pp. 6-37 to 6-38
☒ Western burrowing owl	• On project footprint and 500-ft radius, identify and map all owls and burrows, and determine status • Document use of habitat (e.g. breeding, foraging)	• Avoid occupied nests during breeding season (Feb-Sep) • Avoid occupied burrows during nonbreeding season (Sep – Feb) • Install one-way doors in occupied burrow (if avoidance not possible) • Monitor burrows with doors installed	• Establish buffer zones (250 ft around nests) • Establish buffer zones (160 ft around burrows)	pp. 6-39 to 6-41

[10] The requirements in this table are not comprehensive; they are detailed in the next section on the following page.

☐ Giant garter snake	• Delineate aquatic habitat up to 200 ft from water's edge on each side • Document any occurrences	• Limit construction to Oct-May • Dewater habitat April 15 – Sep 30 prior to construction • Minimize clearing for construction	• Delineate 200 ft buffer around potential habitat near construction • Provide field report on monitoring efforts • Stop construction activities if snake is encountered; allow snake to passively relocate • Remove temporary fill or debris from construction site • Mandatory training for construction personnel	pp. 6-43 to 6-45
☐ California tiger salamander	• Provide written notification to USFWS and CDFW regarding timing of construction and likelihood of occurrence on site	• Allow agency staff to translocate species, if requested	• None	p. 6-45
☐ California red-legged frog	• Provide written notification to USFWS and CDFW regarding timing of construction and likelihood of occurrence on site	• Allow agency staff to translocate species, if requested	• None	p. 6-46
☐ Covered shrimp	• Establish presence/absence • Document and evaluate use of all habitat features (e.g. vernal pools, rock outcrops)	• Establish buffer near construction activities • Prohibit incompatible activities	• Establish buffer around outer edge of all hydric vegetation associated with habitat (50 ft or immediate watershed, whichever is larger) • Mandatory training for construction personnel	pp. 6-46 to 6-48
☐ Townsend's big-eared bat	• Establish presence/absence • Determine if potential sites were recently occupied (guano)	• Seal hibernacula before Nov • Seal nursery sites before April • Delay construction near occupied sites until hibernation or nursery seasons are over	• None	pp. 6-36 to 6-37
☒ Swainson's hawk	• Determine whether potential nests are occupied	• No construction within 1,000 ft of occupied nests within breeding season (March 15 - Sep 15) • If necessary, remove active nest tree after nesting season to prevent occupancy in second year.	• Establish 1,000 ft buffer around active nest and monitor compliance (no activity within established buffer)	pp. 6-41 to 6-43
☒ Golden Eagle	• Establish presence/absence of nesting eagles	• No construction within ½ mile near active nests (most activity late Jan – Aug)	• Establish ½ mile buffer around active nest and monitor compliance with buffer	pp. 6-38 to 6-39

2) Required Preconstruction Surveys, Avoidance and Minimization, and Construction Monitoring

All preconstruction surveys shall be conducted in accordance with the requirements set forth in Section 6.4.3, Species-Level Measures, and Table 6-1 of the ECCC HCP/NCCP. Detailed descriptions of preconstruction surveys, avoidance and minimization, and construction monitoring applicable to each of the wildlife species in Table 3 are located below. Please remove the species-specific measures that do not apply to your project (highlight entire section and delete).

WESTERN BURROWING OWL

Preconstruction Surveys

Prior to any ground disturbance related to covered activities, a USFWS/CDFW- approved biologist will conduct a preconstruction survey in areas identified in the planning surveys as having potential burrowing owl habitat. The surveys will establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines (California Department of Fish and Game 1995).

On the parcel where the activity is proposed, the biologist will survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership will not be surveyed. Surveys should take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls will be identified and mapped. Surveys will take place no more than 30 days prior to construction. During the breeding season (February 1– August 31), surveys will document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1–January 31), surveys will document whether burrowing owls are using habitat in or directly adjacent to any

disturbance area. Survey results will be valid only for the season (breeding or nonbreeding) during which the survey is conducted.

Avoidance and Minimization and Construction Monitoring

This measure incorporates avoidance and minimization guidelines from CDFW's *Staff Report on Burrowing Owl Mitigation* (California Department of Fish and Game 1995).

If burrowing owls are found during the breeding season (February 1 – August 31), the project proponent will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance will include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 – January 31), the project proponent should avoid the owls and the burrows they are using, if possible. Avoidance will include the establishment of a buffer zone (described below).

During the breeding season, buffer zones of at least 250 feet in which no construction activities can occur will be established around each occupied burrow (nest site). Buffer zones of 160 feet will be established around each burrow being used during the nonbreeding season. The buffers will be delineated by highly visible, temporary construction fencing.

If occupied burrows for burrowing owls are not avoided, passive relocation will be implemented. Owls should be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors should be in place for 48 hours prior to excavation. The project area should be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation (California Department of Fish and Game 1995). Plastic tubing or a similar structure should be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

SWAINSON'S HAWK

Preconstruction Survey

Prior to any ground disturbance related to covered activities that occurs during the nesting season (March 15–September 15), a qualified biologist will conduct a preconstruction survey no more than 1 month prior to construction to establish whether Swainson's hawk nests within 1,000 feet of the project site are occupied. If potentially occupied nests within 1,000 feet are off the project site, then their occupancy will be determined by observation from public roads or by observations of Swainson's hawk activity (e.g., foraging) near the project site. If nests are occupied, minimization measures and construction monitoring are required (see below).

Avoidance and Minimization and Construction Monitoring

During the nesting season (March 15–September 15), covered activities within 1,000 feet of occupied nests or nests under construction will be prohibited to prevent nest abandonment. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be used, the Implementing Entity will coordinate with CDFW/USFWS to determine the appropriate buffer size.

If young fledge prior to September 15, covered activities can proceed normally. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant can apply to the Implementing Entity for a waiver of this avoidance measure. Any waiver must also be approved by USFWS and CDFW. While the nest is occupied, activities outside the buffer can take place.

All active nest trees will be preserved on site, if feasible. Nest trees, including non-native trees, lost to covered activities will be mitigated by the project proponent according to the requirements below.

Mitigation for Loss of Nest Trees

The loss of non-riparian Swainson's hawk nest trees will be mitigated by the project proponent by:

- If feasible on-site, planting 15 saplings for every tree lost with the objective of having at least 5 mature trees established for every tree lost according to the requirements listed below.

  AND either

  1) Pay the Implementing Entity an additional fee to purchase, plant, maintain, and monitor 15 saplings on the HCP/NCCP Preserve System for every tree lost according to the requirements listed below, OR

  2) The project proponent will plant, maintain, and monitor 15 saplings for every tree lost at a site to be approved by the Implementing Entity (e.g., within an HCP/NCCP Preserve or existing open space linked to HCP/NCCP preserves), according to the requirements listed below.

The following requirements will be met for all planting options:

- Tree survival shall be monitored at least annually for 5 years, then every other year until year 12. All trees lost during the first 5 years will be replaced. Success will be reached at the end of 12 years if at least 5 trees per tree lost survive without supplemental irrigation or protection from herbivory. Trees must also survive for at least three years without irrigation.
- Irrigation and fencing to protect from deer and other herbivores may be needed for the first several years to ensure maximum tree survival.
- Native trees suitable for this site should be planted. When site conditions permit, a variety of native trees will be planted for each tree lost to provide trees with different growth rates, maturation, and life span, and to provide a variety of tree canopy structures for Swainson's hawk. This variety will help to ensure that nest trees will be available in the short term (5-10 years for cottonwoods and willows) and in the long term (e.g., Valley oak, sycamore). This will also minimize the temporal loss of nest trees.
- Riparian woodland restoration conducted as a result of covered activities (i.e., loss of riparian woodland) can be used to offset the nest tree planting requirement above, if the nest trees are riparian species.
- Whenever feasible and when site conditions permit, trees should be planted in clumps together or with existing trees to provide larger areas of suitable nesting habitat and to create a natural buffer between nest trees and adjacent development (if plantings occur on the development site).
- Whenever feasible, plantings on the site should occur closest to suitable foraging habitat outside the UDA.
- Trees planted in the HCP/NCCP preserves or other approved offsite location will occur within the known range of Swainson's hawk in the inventory area and as close as possible to high-quality foraging habitat.

<u>GOLDEN EAGLE</u>

Preconstruction Survey

Prior to implementation of covered activities, a qualified biologist will conduct a preconstruction survey to establish whether nests of golden eagles are occupied (see Section 6.3.1, *Planning Surveys*). If nests are occupied, minimization requirements and construction monitoring will be required.

Avoidance and Minimization

Covered activities will be prohibited within 0.5 mile of active nests. Nests can be built and active at almost any time of the year, although mating and egg incubation occurs late January through August, with peak activity in March through July. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be appropriate or that a larger buffer should be implemented, the Implementing Entity will coordinate with CDFW/USFWS to determine the appropriate buffer size.

Construction Monitoring

Construction monitoring will focus on ensuring that no covered activities occur within the buffer zone established around an active nest. Although no known golden eagle nest sites occur within or near the ULL, covered activities inside and outside of the Preserve System have the potential to disturb golden eagle nest sites. Construction monitoring will ensure that direct effects to golden eagles are minimized.

3) Construction Monitoring Plan

Before implementing a covered activity, the applicant will develop and submit a construction monitoring plan to the planning department of the local land use jurisdiction and the East Contra Costa County Habitat Conservancy for review and approval. Elements of a brief construction monitoring plan will include the following:

- Results of planning and preconstruction surveys.[11]
- Description of avoidance and minimization measures to be implemented, including a description of project-specific refinements to the measures or additional measures not included in the HCP/NCCP.
- Description of monitoring activities, including monitoring frequency and duration, and specific activities to be monitored.
- Description of the onsite authority of the construction monitor to modify implementation of the activity.

☒ Check box to acknowledge this requirement.

V. SPECIFIC CONDITIONS ON COVERED ACTIVITIES

1) Check off the HCP conservation measures that apply to the project.

APPLIES TO ALL PROJECTS

☒ **Conservation Measure 1.11. Avoid Direct Impacts on Extremely Rare Plants, Fully Protected Wildlife Species, or Migratory Birds.** This conservation measure applies to all projects. All projects will avoid all impacts on extremely rare plants and fully protected species listed in Table 6-5 of the ECCC HCP/NCCP. See HCP pp. 6-23 to 6-25, and Table 6-5.

APPLIES TO PROJECTS THAT IMPACT COVERED PLANT SPECIES

☐ **Conservation Measure 3.10. Plant Salvage when Impacts are Unavoidable.** This condition applies to projects that cannot avoid impacts on covered plants and help protect covered plants by prescribing salvage whenever avoidance of impacts is not feasible. Project proponents wishing to remove populations of covered plants must notify the Conservancy of their construction schedule to allow the Conservancy the option of salvaging the populations. See HCP pp. 6-48 to 6-50.

APPLIES TO PROJECTS THAT INCLUDE ARE ADJACENT TO STREAMS, PONDS, OR WETLANDS

☐ **Conservation Measure 2.12. Wetland, Pond, and Stream Avoidance and Minimization.** All projects will implement measures described in the HCP to avoid and minimize impacts on wetlands, ponds, streams, and riparian woodland/scrub. See HCP pp. 6-33 to 6-35.

APPLIES TO NEW DEVELOPMENT PROJECTS

☒ **Conservation Measure 1.10. Maintain Hydrologic Conditions and Minimize Erosion.** All new development must avoid or minimize direct and indirect impacts on local hydrological conditions and erosion by incorporating the applicable Provision C.3 Amendments of the Contra Costa County Clean Water Program's (CCCCWP's) amended NPDES Permit (order no. R2-2003-0022; permit no. CAS002912). The overall goal of this measure is to ensure that new development covered under the HCP has no or minimal adverse effects on downstream fisheries to avoid take of fish listed under ESA or CESA. See HCP pp. 6-21 to 6-22.

APPLIES TO NEW DEVELOPMENT PROJECTS THAT INCLUDE OR ARE ADJACENT TO STREAMS, PONDS, OR WETLANDS

☐ **Conservation Measure 1.7. Establish Stream Setbacks.** A stream setback will be applied to all development projects covered by the HCP according to the stream types listed in Table 6-2 of the HCP. See HCP pp. 6-15 to 6-18 and Table 6-2.

APPLIES TO NEW DEVELOPMENT PROJECTS ADJACENT TO EXISTING PUBLIC OPEN SPACE, HCP PRESERVES, OR LIKELY HCP ACQUISITION SITES

☐ **Conservation Measure 1.6. Minimize Development Footprint Adjacent to Open Space.** Project applicants are encouraged to minimize their development footprint and set aside portions of their land to contribute to the HCP Preserve System. Land set aside that contributes to the HCP biological goals and objectives may be credited against development fees. See HCP pages 6-14 to 6-15.

☐ **Conservation Measure 1.8. Establish Fuel Management Buffer to Protect Preserves and Property.** Buffer zones will provide a buffer between development and wildlands that allows adequate fuel management to minimize the risk of wildlife damage to property or to the preserve. The minimum buffer zone for new development is 100 feet. See HCP pages 6-18 to 6-19.

[11] If the preconstruction surveys do not trigger construction monitoring, results of preconstruction surveys should still be submitted to the local jurisdiction and the East Contra Costa County Habitat Conservancy.

☐ **Conservation Measure 1.9. Incorporate Urban-Wildlife Interface Design Elements.** These projects will incorporate design elements at the urban-wildlife interface to minimize the indirect impacts of development on the adjacent preserve. See HCP pp. 6-20 to 6-21.

APPLIES TO ROAD MAINTENANCE PROJECTS OUTSIDE THE UDA

☐ **Conservation Measure 1.12. Implement Best Management Practices for Rural Road Maintenance.** Road maintenance activities have the potential to affect covered species by introducing sediment and other pollutants into downstream waterways, spreading invasive weeds, and disturbing breeding wildlife. In order to avoid and minimize these impacts, BMPs described in the HCP will be used where appropriate and feasible. See HCP pp. 6-25 to 6-26.

APPLIES TO NEW ROADS OR ROAD IMPROVEMENTS OUTSIDE THE UDA

☐ **Conservation Measure 1.14. Design Requirements for Covered Roads Outside the Urban Development Area (UDA).** New roads or road improvements outside the UDA have impacts on many covered species far beyond the direct impacts of their project footprints. To minimize the impacts of new, expanded, and improved roads in agricultural and natural areas of the inventory area, road and bridge construction projects will adopt siting, design, and construction requirements described in the HCP and listed in Table 6-6. See HCP pp. 6-27 to 6-33 and Table 6-6.

APPLIES TO FLOOD CONTROL MAINTENANCE ACTIVITIES

☐ **Conservation Measure 1.13. Implement Best Management Practices for Flood Control Facility Maintenance.** Flood control maintenance activities have the potential to affect covered species by introducing sediment and other pollutants into downstream waterways and disturbing breeding wildlife. In order to avoid and minimize these impacts, BMPs described in the HCP will be used where appropriate and feasible. See HCP pp. 6-26 to 6-27.

2) For all checked conservation measures, describe how the project will comply with each measure. Attach as Attachment C: Project Compliance to HCP Conditions.

VI. MITIGATION MEASURES

1) Mitigation Fee Calculator(s)
Complete and attach the fee calculator (use permanent and/or temporary impact fee calculator as appropriate), and attach as **Attachment D: Fee Calculator(s)**.

2) Briefly describe the amount of fees to be paid <u>and</u> when applicant plans to submit payment.

The 16.3+/- acre site contains 13.22 acres of ruderal grassland and 3.10 acres of urban/developed land.

The site is within Fee Zone 1. Construction is expected to commence in 2022.

Using the current fee schedule, fees would be paid on 13.22+/- acres within Fee Zone 1, at a cost of $17,602.20 per acre ($232,701.08). Fees would be paid pursuant to the fee schedule that is in place at the time construction commences.

ATTACHMENT A: PROJECT DESCRIPTION

16+/- Acre Lone Tree Way Site
(Subdivision 9597)

Project Description

February 2022

The 16.3+/- acre project site is north of Lone Tree Way and just east of O'Hara Avenue in Brentwood, Contra Costa County, California (Figure 1). The site is within Section 1, in Township 1 North, Range 2 East of the USGS 7.5-minute Brentwood topographic quadrangle. The site is level and is situated at an elevation of approximately 75 feet above mean sea level.

The site is leveled ruderal grassland, with three residences and several trees. Land uses in the project vicinity are primarily residential and the site is entirely surrounded by parcels that are mapped as the "Urban/Developed" land cover type on the ECCCHCP/NCCP Development Fee Zones Map. The proposed project may be best described as an "infill redevelopment" project.

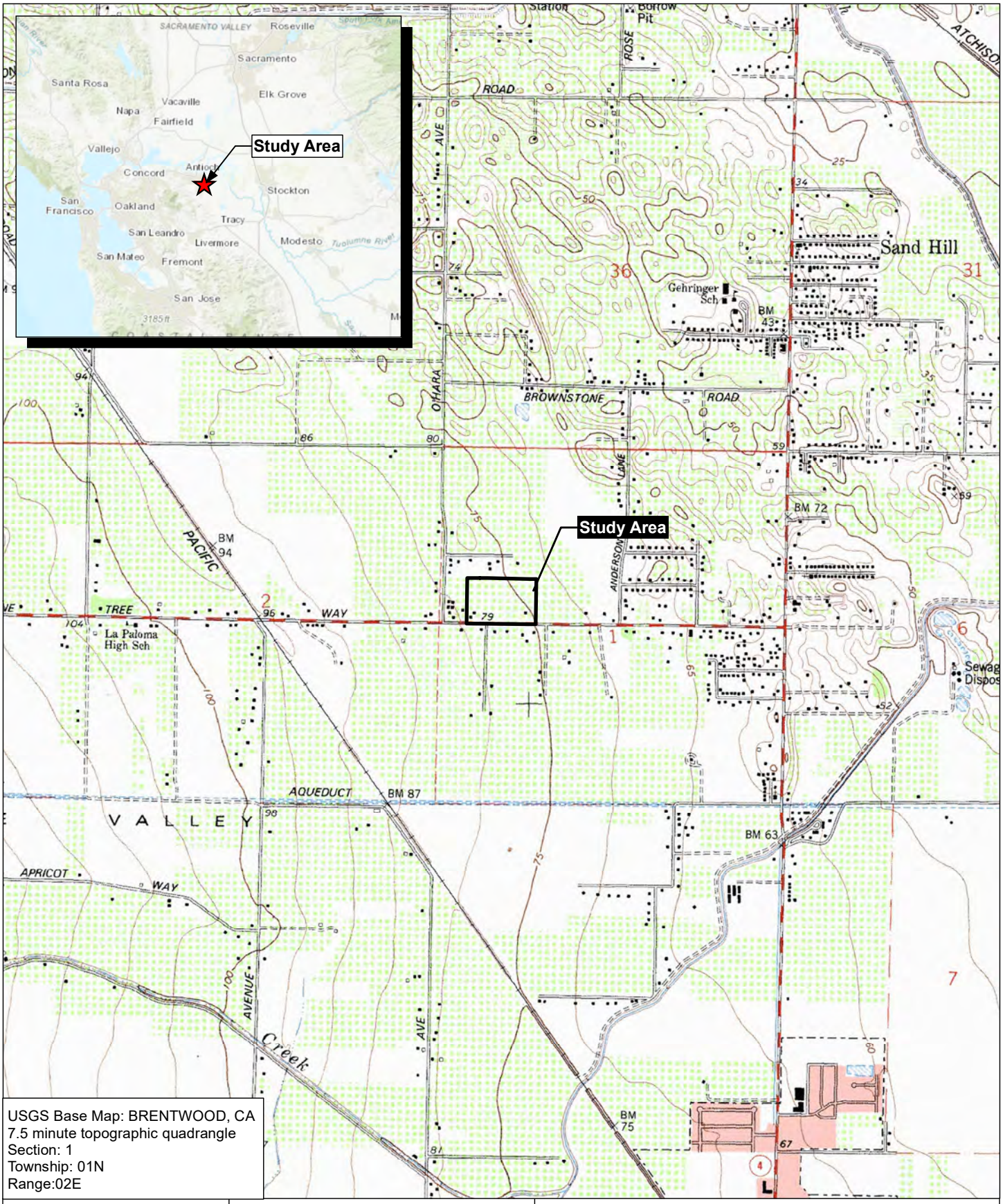
Seecon Financial & Construction Co. plans to divide the property in to a 37-lot low density residential subdivision with two access roads extending north from Lone Tree Way (Figure 2). From these access points, a simple road network will provide access to all of the lots. The project will also involve widening Lone Tree Road, including a landscaped strip between the edge of pavement and the new homes.

There will be a bioretention basin constructed in the southeast corner of the site where stormwater will be detained prior to discharge into the City's storm drain system. The proposed project will connect to existing City infrastructure to provide sewer and water to the site.

Standard construction best management practices (BMPs) will be employed during construction to minimize the potential for erosion and off-site transport of fines. BMPs will include use of water trucks, appropriate compaction of soil, and installation of straw wattles, silt fences or other technologies along the perimeter of the site during construction, and stabilization of bare soils as appropriate with seeding, straw, and/or hydromulch.

Construction is expected to begin in 2022.

ATTACHMENT B: FIGURES



USGS Base Map: BRENTWOOD, CA
7.5 minute topographic quadrangle
Section: 1
Township: 01N
Range:02E

Figure 1

0 1,000 2,000
Feet

N W E S

Site Map/USGS

16+/- Acre Lone Tree Way Site

City of Brentwood, Contra Costa County, CA

Moore Biological Consultants

Map Date: 01/14/2022

C:\FBC_INC\Projects\Moore Biological\Lone Tree Way\MXD\lone_tree_ecop_figure_1.mxd

VESTING TENTATIVE MAP
SUB 9597 - 7590 & 7650 LONE TREE WAY PROPERTY

CITY OF BRENTWOOD, CONTRA COSTA COUNTY, CALIFORNIA

FOR: SEECON FINANCIAL & CONSTRUCTION CO.

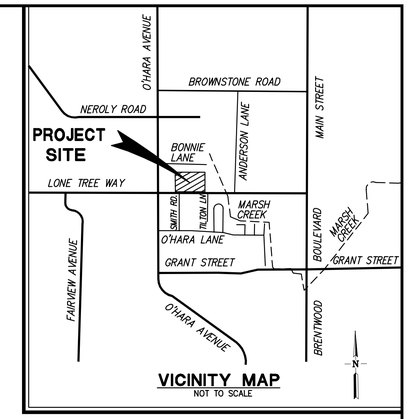
BENCHMARK

CONTRA COSTA COUNTY BENCHMARK LABELED "BM 494" DESCRIBED AS A DISK LOCATED ON CONCRETE HEADWALL OF S.P. CROSSING OF EBMUD PIPELINE 1.9 MILES NORTHWEST ALONG S.P.R.R FROM BRENTWOOD AT BRIDGE 59E-8'E OF NORTHWEST END OF HEADWALL ABOUT 60' NORTH OF MINNESOTA AVENUE. ELEVATION: 86.617 (NGVD 29)

CONVERSION: 86.617 (NGVD 29) + 2.672 = 89.289 (NAVD 88)

NOTE

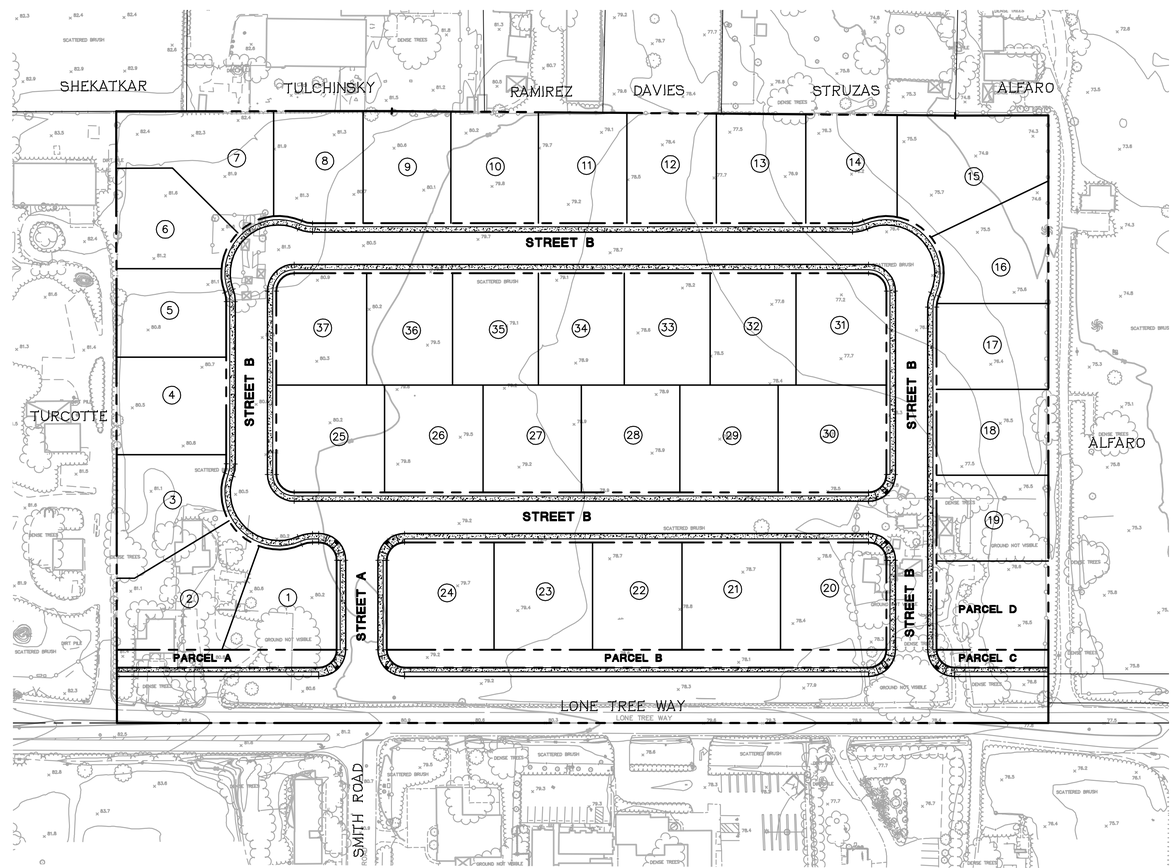
1. *THE TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS ARE BASED ON NAVD 88 DATUM ELEVATIONS.*



VICINITY MAP
NOT TO SCALE

LEGEND

PROPOSED	DESCRIPTION	EXISTING
	TRACT BOUNDARY	
	LOT LINE	
	RIGHT OF WAY	
	CENTER LINE	
	MATCH LINE	
	RETAINING WALL	
	EASEMENT LINE	
12"SD	STORM DRAIN	EX 12"SD
8"SS	SANITARY SEWER	EX 12"SS
12"W	POTABLE WATER	EX 12"W
8"W(R)	RECYCLED WATER	EX 8"W(R)
	CURB & GUTTER	EX FC
	SAWCUT	
	SIDEWALK	
	EARTH OR GRASS SWALE	
	VALLEY GUTTER	
	STORM WATER INLET	
	DROP INLET	
	AREA DRAIN	
	BUBBLE UP	
	MANHOLE	
	SANITARY SEWER CLEAN OUT	
	SANITARY SEWER LATERAL	
	FIRE HYDRANT	
	BLOW OFF	
	WATER SERVICE WITH METER BOX	
	BACKFLOW DEVICE	
	WATER VALVE	
	AIR RELEASE VALVE	
	POST INDICATOR VALVE	
	FIRE DEPARTMENT CONNECTION	
	SINGLE ARM STREET LIGHT	
	DOUBLE ARM STREET LIGHT	
	POST TOP LIGHT	
	PEDESTRIAN LIGHT	
	MONUMENT	
	TRAFFIC SIGN	
	STREET NAME SIGN	
	FENCE	
	BARRICADE	
	CURB RAMP	
130	CONTOUR ELEVATIONS	130
x 525.2	SPOT ELEVATION	x525.2
	NEW ASPHALT PAVEMENT	
	BIO-RETENTION AREA	



LOCATION MAP
SCALE: 1"=80'

N

1. OWNER: SEECON FINANCIAL & CONSTRUCTION CO.
   4021 PORT CHICAGO HIGHWAY
   CONCORD, CA 94520
   (925) 671-7711
   CONTACT: JACKIE SEENO
2. DEVELOPER: SEECON FINANCIAL & CONSTRUCTION CO.
   4021 PORT CHICAGO HIGHWAY
   CONCORD, CA 94520
   (925) 671-7711
   CONTACT: JACKIE SEENO
3. CIVIL ENGINEER: RUGGERI-JENSEN-AZAR
   4690 CHABOT DRIVE, SUITE 200
   PLEASANTON, CA 94588
   (925) 227-9100
   CONTACT: DOMINIC CARUCCI, RCE 85585
4. GEOTECHNICAL ENGINEER: ENGEO
   2010 CROW CANYON PLACE, SUITE 250
   SAN RAMON, CA 94583
   (925) 866-9000
   CONTACT: BAHAREH HEIDARZADEH
5. ASSESOR'S PARCEL NUMBERS: 018-060-006, 018-060-007
6. PROPERTY DESCRIPTION:
   A PORTION OF LOTS 4, 5, 6, AND 7, AS DESIGNATED ON THE MAP ENTITLED "MAP OF THE PREWETTS ELLENDALE SUBDIVISION, FILED MARCH 5, 1912, IN BOOK 6 OF MAPS PAGE 141, CONTRA COSTA COUNTY RECORDS, AND A PORTION OF THE SOUTHWEST ¼ OF THE NORTHWEST ¼ OF SECTION 1, TOWNSHIP 1 NORTH, RANGE 2 EAST, MOUNT DIABLO BASE AND MERIDIAN.
7. EXISTING USE: VACANT
8. PROPOSED USE: RESIDENTIAL
9. EXISTING ZONING: R-VLD (RESIDENTIAL VERY LOW DENSITY)
10. PROPOSED ZONING: R-1-12 (SINGLE FAMILY RESIDENTIAL)
11. GENERAL PLAN LAND DESIGNATION: RESIDENTIAL VERY LOW DENSITY
12. GROSS AREA: 16.3± ACRES
13. SMALLEST RESIDENTIAL LOT SIZE: 12,000 SF
14. TOTAL NUMBER OF LOTS: 41
15. TOTAL NUMBER OF UNITS: 37
16. UTILITIES:
    a. WATER: CITY OF BRENTWOOD
    b. SANITARY SEWER: CITY OF BRENTWOOD
    c. STORM DRAIN: CITY OF BRETNWOOD
    d. GAS AND ELECTRIC: PACIFIC GAS AND ELECTRIC
    e. TELEPHONE: AT&T
    f. CABLE TV: COMCAST
17. TOPOGRAPHIC INFORMATION SHOWN IS BASED ON AERIAL SURVEY PREPARED IN NOVEMBER 2021.
18. THE PROPERTY IS WITHIN ZONE X-AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD PLAIN AS SHOWN IN FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 06013C0354G, DATED MARCH 21, 2021.
19. IN COMPLIANCE WITH BEST MANAGEMENT PRACTICES FOR STORMWATER MANAGEMENT TO MINIMIZE POLLUTANTS FROM ENTERING INTO UNDERGROUND STORM DRAINS, BIORETENTION AREAS ARE PROPOSED TO TREAT STORMWATER RUNOFF. THE PROPOSED STORMWATER TREATMENT MEASURES WILL BE MAINTAINED BY THE HOMEOWNERS' ASSOCIATION IN ACCORDANCE WITH THE CC&R'S.

ABBREVIATIONS

AB	AGGREGATE BASE	P	PAD ELEVATION
AC	ASPHALT CONCRETE	PAE	PRIVATE VEHICLE ACCESS EASEMENT
AD	AREA DRAIN	PAV	PAVEMENT
BC	BEGINNING OF CURVE	PL	PROPERTY LINE
BOC	BACK OF CURVE	PIEE	PRIVATE VEHICULAR AND PEDESTRIAN INGRESS AND EGRESS EASEMENT
BNDY	BOUNDARY		
BOT	BOTTOM	PPAE	PRIVATE PEDESTRIAN ACCESS EASEMENT
BSW	BACK OF SIDEWALK	PSSE	PRIVATE SANITARY SEWER EASEMENT
BW	BOTTOM OF WALL	PSDE	PRIVATE STORM DRAIN EASEMENT
CL	CENTER LINE	PRSE	PRIVATE RECIPROCAL SIDEYARD EASEMENT
DI	DROP INLET		
DMA	DRAINAGE MANAGEMENT AREA	PWLE	PRIVATE WATER LINE EASEMENT
DU	DWELLING UNITS	PUE	PUBLIC UTILITY EASEMENT
EC	END OF CURVE	PVC	POLYVINYL CHLORIDE PIPE
ESMT	EASEMENT	RET	CURB RETURN
EVAE	EMERGENCY VEHICLE ACCESS EASEMENT	RW	RIGHT OF WAY
EX	EXISTING	SD	STORM DRAIN
FC	FACE OF CURB	SF	SQUARE FEET
FF	FINISHED FLOOR	SL	STREET LIGHT
FG	FINISHED GRADE	SNS	STREET NAME SIGN
FH	FIRE HYDRANT	SS	SANITARY SEWER
FL	FLOW LINE	SSCO	SANITARY SEWER CLEANOUT
GB	GRADE BREAK	STD	STANDARD
HP	HIGH POINT	SWE	PUBLIC SIDEWALK EASEMENT
INV	INVERT ELEVATION	SWK	SIDEWALK
LAT	LATERAL	SWI	STORM WATER INLET
LF	LINEAR FOOT	TC	TOP OF CURB
LP	LOW POINT	TG	TOP OF GRATE
JT	JOINT TRENCH	TW	TOP OF WALL
MAX	MAXIMUM	TYP	TYPICAL
MH	MANHOLE	W	WATER LINE
MIN	MINIMUM	WLE	WATER LINE EASEMENT
OH	OVERHEAD	WM	WATER METER
		WS	WATER SERVICE

SHEET INDEX

SHEET NO.	DESCRIPTION
TM1.0	TITLE SHEET
TM2.1	EXISTING CONDITION PLAN
TM3.1	PRELIMINARY LOTTING PLAN
TM4.1	LONE TREE WAY – INTERM ALIGNMENT
TM4.2	LONE TREE WAY – ULTIMATE ALIGNMENT
TM5.1	PRELIMINARY GRADING AND DRAINAGE PLAN
TM6.1	PRELIMINARY UTILITY PLAN
TM7.1	PRELIMINARY STORMWATER TREATMENT PLAN

RJA
RUGGERI-JENSEN-AZAR
ENGINEERS ▪ PLANNERS ▪ SURVEYORS
4690 CHABOT DRIVE, SUITE 200 PLEASANTON, CA 94588
PHONE: (925) 227-9100 FAX: (925) 227-9300

DATE: DECEMBER 17, 2021 JOB NO. 211071 **TM1.0**

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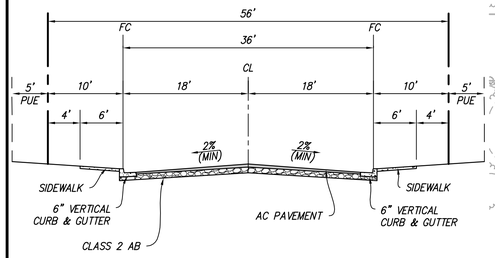
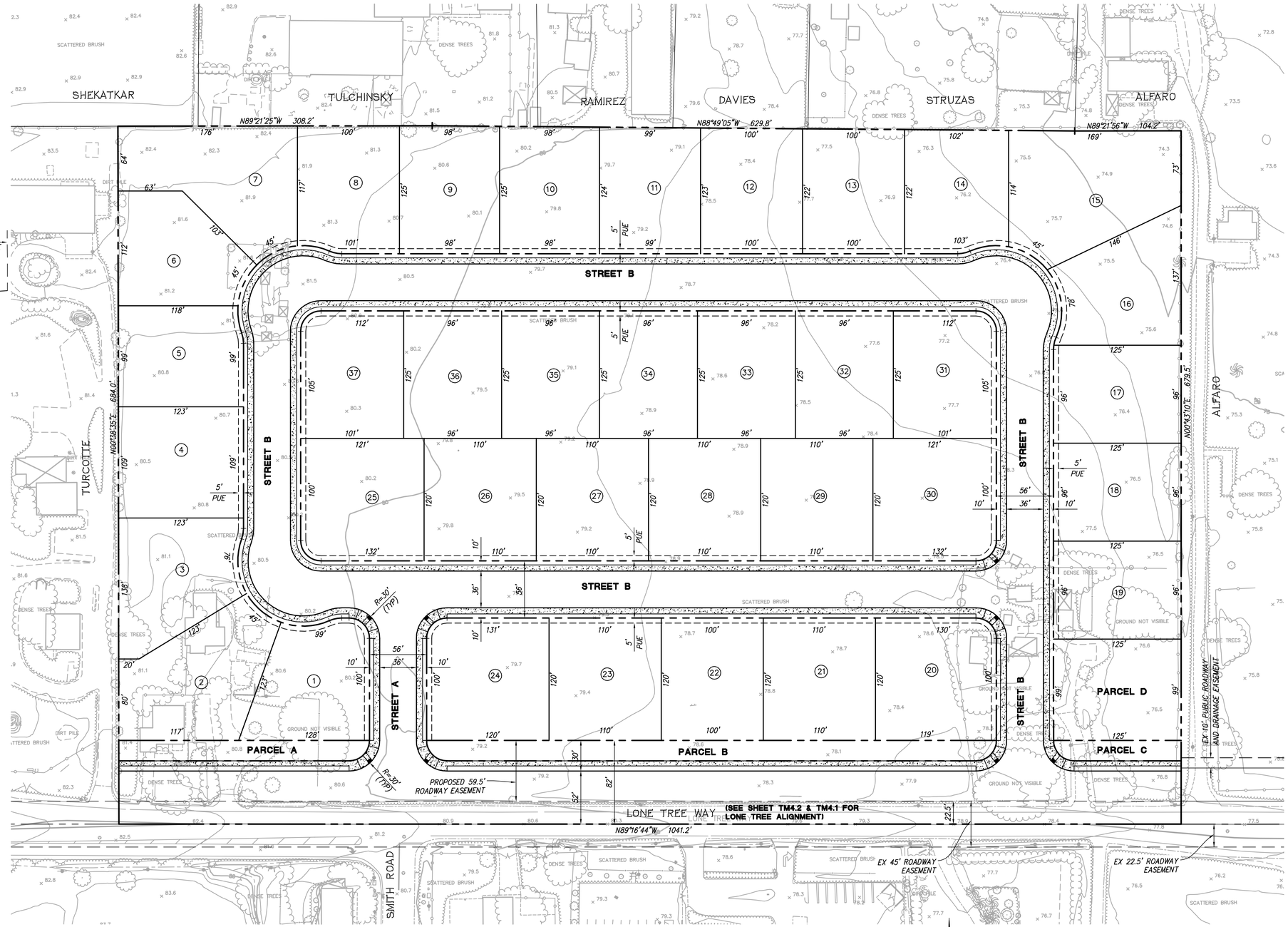
Figure 2a. Tentative Map Cover Sheet



STREETS A & B
NOT TO SCALE



LOT AREA TABLE	
LOT #	AREA (SF)
1	12,408
2	15,261
3	13,541
4	13,372
5	12,032
6	12,166
7	16,246
8	12,316
9	12,272
10	12,199
11	12,245
12	12,288
13	12,207
14	12,106
15	18,346
16	13,084
17	12,000
18	12,001
19	12,000
20	14,141
21	13,200
22	12,000
23	13,200
24	14,314
25	14,434
26	13,200
27	13,200
28	13,200
29	13,200
30	14,434
31	12,539
32	12,000
33	12,000
34	12,000
35	12,000
36	12,000
37	12,539
PARCEL A	4,829
PARCEL B	10,999
PARCEL C	2,414
PARCEL D	12,409

PRELIMINARY LOTTING PLAN

SUB 9597 - 7590 & 7650 LONE TREE WAY

CITY OF BRENTWOOD, CONTRA COSTA COUNTY, CALIFORNIA
FOR: SEECON FINANCIAL & CONSTRUCTION CO.

RJA
RUGGERI-JENSEN-AZAR
ENGINEERS ▪ PLANNERS ▪ SURVEYORS
4690 CHABOT DRIVE, SUITE 200 PLEASANTON, CA 94588
PHONE: (925) 227-9100 FAX: (925) 227-9300

DATE: DECEMBER 17, 2021 JOB NO. 211071 **TM3.1**

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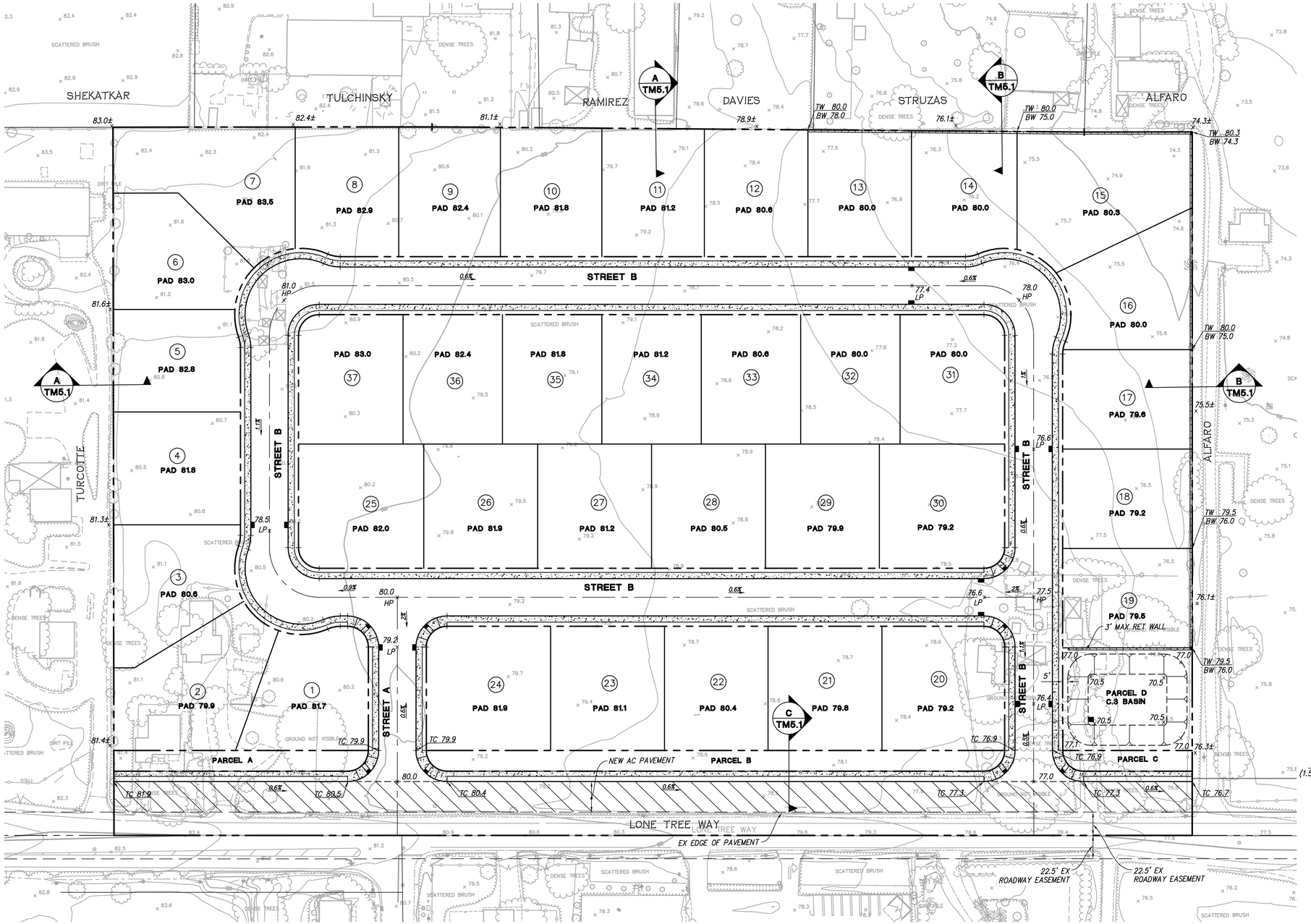
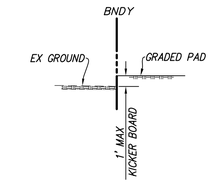
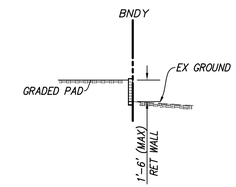
Figure 2b. Preliminary Lotting Plan

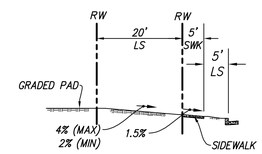




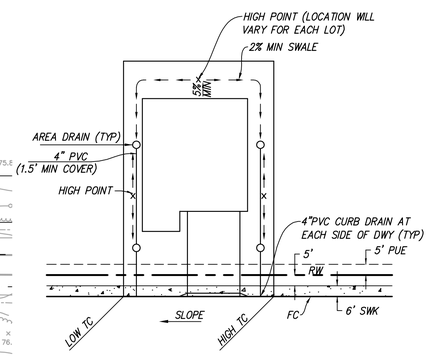
SECTION A
NOT TO SCALE



SECTION B
NOT TO SCALE



SECTION C
NOT TO SCALE



TYPICAL LOT DRAINAGE DETAIL
NOT TO SCALE

PRELIMINARY GRADING AND DRAINAGE PLAN
SUB 9597 - 7590 & 7650 LONE TREE WAY

CITY OF BRENTWOOD, CONTRA COSTA COUNTY, CALIFORNIA
FOR: SEECON FINANCIAL & CONSTRUCTION CO.

N

0 50 100 150
1 inch = 50 ft.

RJA
RUGGERI-JENSEN-AZAR
ENGINEERS ▪ PLANNERS ▪ SURVEYORS
4690 CHABOT DRIVE, SUITE 200 PLEASANTON, CA 94588
PHONE: (925) 227-9100 FAX: (925) 227-9300

DATE: DECEMBER 17, 2021 JOB NO. 211071 **TM5.1**

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Figure 2c. Preliminary Grading and Drainage Plan

Figure 3

Project Site (16.32 ac.)

Urban (3.10 ac.)

Ruderal Grassland (13.22 ac.)

N
W E
S

0 150 300

Field Verified Landcover Map

16+/- Acre Lone Tree Way Site

City of Brentwood, Contra Costa County, CA

Moore Biological Consultants

Map Date: 01/17/2022
Aerial Source: Google Earth (06/2021)

G:\BEC\MCB\Projects\Moore Biological\Lone Tree Way\MXD\lone tree esop figure 3.mxd

Ruderal grassland in the body of the site, looking northeast from the southwest part of the site; 01/05/22.

Ruderal grassland in the east part of the site, looking west from the east edge of the site; 01/05/22.

FIGURE 4a

MOORE BIOLOGICAL

REPRESENTATIVE PHOTOGRAPHS

Ruderal grassland in the south part of the site, looking west from just west of the eastern home site; 01/05/22.

Two large cottonwoods just east of the western home site, looking north from the south edge of the site; 01/05/22.

FIGURE 4b

MOORE BIOLOGICAL

REPRESENTATIVE PHOTOGRAPHS

South edge of the site, looking west along Lone Tree Way from the southeast corner of the site; 01/05/22. There will be road improvements along a portion of Lone Tree Way as part of the project.

East edge of the site, looking north from the southeast corner of the site; 01/05/22.

FIGURE 4c

MOORE BIOLOGICAL

REPRESENTATIVE PHOTOGRAPHS

West edge of the site, looking north from the southwest corner of the site; 01/05/22.

North edge of the site, looking west from the northeast corner of the site; 01/05/22.

FIGURE 4d

MOORE BIOLOGICAL

REPRESENTATIVE PHOTOGRAPHS

Driveway and trees surrounding the home in the eastern home site, looking northwest; 01/05/22.

View of the eastern home site from the ruderal grassland field to the north, looking southwest; 01/05/22.This home and surrounding trees will be demolished as part of the project.

FIGURE 4e

MOORE BIOLOGICAL

REPRESENTATIVE PHOTOGRAPHS

Home and surrounding trees in the western home site, looking north from the driveway to the home; 01/05/22.

Another small home in the western home site, looking northwest from the driveway to the home site; 01/05/22. The homes and surrounding trees will be demolished as part of the project.

FIGURE 4f

MOORE BIOLOGICAL

REPRESENTATIVE PHOTOGRAPHS

Remnant livestock sheds and stables in the northwest part of the site, looking northwest; 01/05/22.

FIGURE 4g

MOORE BIOLOGICAL

REPRESENTATIVE PHOTOGRAPHS

Figure 5a

Project Site (16.32 ac.)

Urban (3.10 ac.)

Ruderal Grassland (13.22 ac.); assumed habitat for western burrowing owl.

Trees; assumed habitat for Swainson's hawk, golden eagle, and white-tailed kite.

N W E S

0 150 300

Map Date: 01/17/2022
Aerial Source: Google Earth (06/2021)

Moore Biological Consultants

Planning Survey Species Habitat Map

16+/- Acre Lone Tree Way Site

City of Brentwood, Contra Costa County, CA

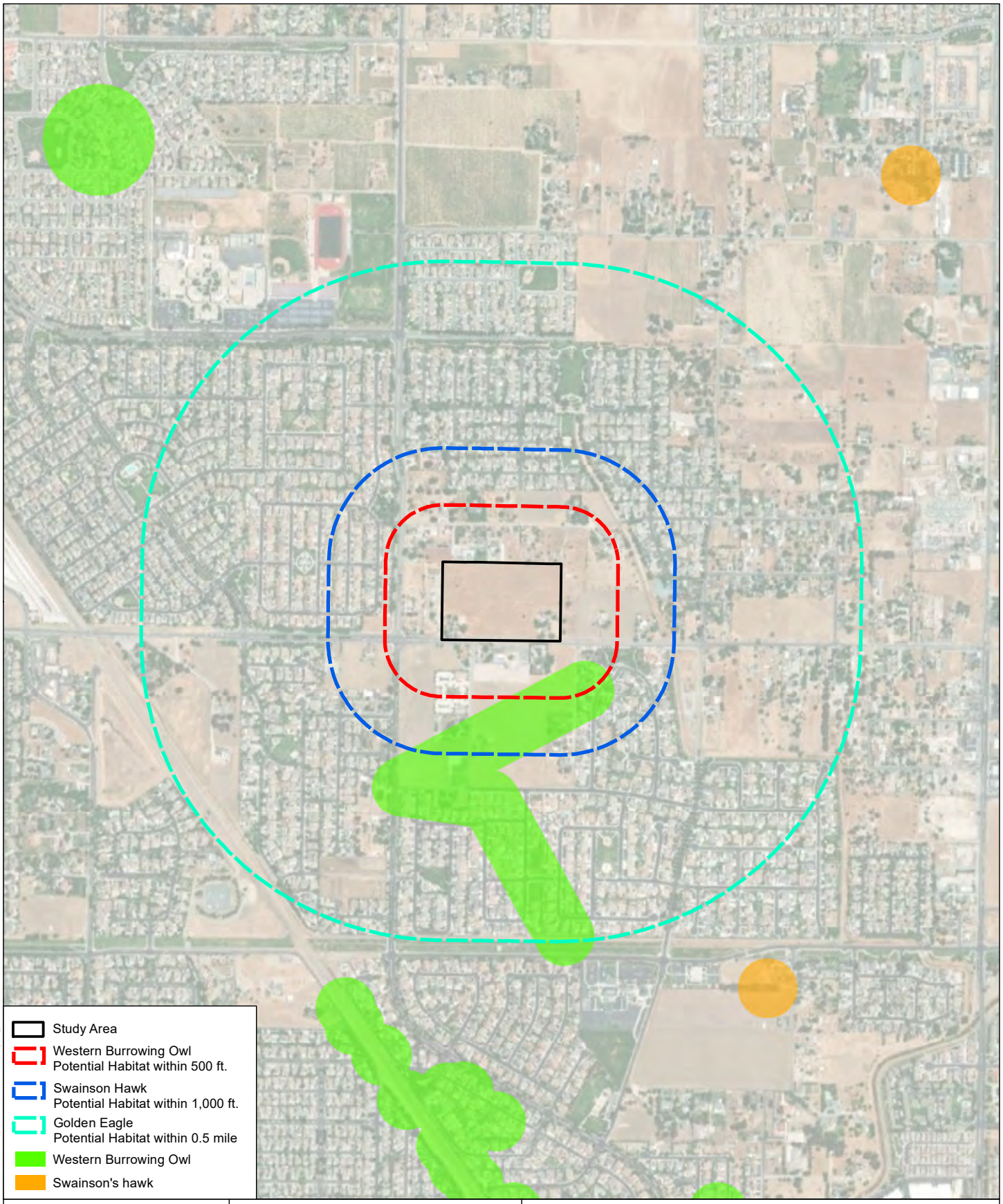

Figure 5b

0 500 1,000

N W E S

Regional Species Habitat Map

16+/- Acre Lone Tree Way Site

City of Brentwood, Contra Costa County, CA

Moore Biological Consultants

Map Date: 01/14/2022
Aerial Photo: Maxar (09/2019)

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ATTACHMENT C: PROJECT COMPLIANCE TO HCP CONDITIONS

16+/- Acre Lone Tree Way Site
(Subdivision 9597)

Project Compliance to HCP Conditions
February 2022

HCP/NCCP Conservation Measure 1.11. Avoid Direct Impacts on Extremely Rare Plants, Fully Protected Wildlife Species, or Covered Migratory Birds:

The potential for special-status plants to occur within the site is considered extremely remote, as described in Section III (10).

Species-specific pre-construction surveys, and if needed, monitoring and avoidance requirements for burrowing owl, Swainson's hawk, and golden eagle will be conducted as described in Section IV (2). There is no suitable habitat in the site for ringtail (*Bassariscus astutus*), a "fully protected species," per California Fish and Game Code Section 4700. Similarly, there is no suitable nesting habitat in the site for peregrine falcon (*Falco peregrinus*), a "fully protected species," per California Fish and Game Code Section 3511.

White-tailed kite (*Elanus caeruleus*), another "fully protected species," per California Fish and Game Code Section 3511 could potentially nest in trees in and near the site. Prior to any ground disturbance related to covered activities that occur during the nesting season (March 15-August 31), a qualified biologist will conduct a preconstruction survey no more than 1 month prior to construction to establish whether white-tailed kite is nesting in trees in or visible from the site. In the event active nests are found, the applicant shall notify the Implementing Entity (i.e., City of Brentwood) and consult with CDFW for further guidance.

On-site tree, shrubs, and grasslands could be used by other species of nesting birds protected by the Migratory Bird Treaty Act. If possible, vegetation removal will occur outside of the general bird nesting season (February 1 through August 31). Alternately, a qualified biologist will conduct a preconstruction survey no more than 2 weeks prior to vegetation removal. In the event active nests are found, the applicant shall notify the Implementing Entity and consult with CDFW for further guidance.

HCP/NCCP Conservation Measure 1.10. Maintain Hydrologic Conditions and Minimize Erosion:

The project has been designed to maintain hydrologic conditions and minimize erosion. Standard construction best management practices (BMPs) will be employed during construction to minimize the potential for erosion and off-site transport of fines. BMPs will include use of water trucks, appropriate compaction of soil, and installation of straw wattles, silt fences or other technologies along the perimeter of the site during construction, and stabilization of bare soils as appropriate with seeding, straw, and/or hydromulch.

ATTACHMENT D: FEE CALCULATOR

ECCC HCP/NCCP 2021 Fee Calculator Worksheet
Permanent Impacts

PROJECT APPLICANT: Seecon Financial & Construction Co.
PROJECT NAME: Subdivision 9597 (16+/- Acre Lone Tree Way Site)
APN(s): 018-060-006 and 018-060-007
JURISDICTION: Brentwood
DATE: February 2022

DEVELOPMENT FEE		**ACREAGE PERMANENTLY IMPACTED (TABLE 1)[1]**		**2021 FEE PER ACRE (SUBJECT TO CHANGE)[2]**		
See appropriate ordinance or HCP/NCCP Figure 9-1 to determine Fee Zone	Fee Zone 1	13.22	x	$17,602.20	=	$232,701.08
	Fee Zone 2		x	$35,204.40	=	$0.00
	Fee Zone 3		x	$8,801.84	=	$0.00
				Development Fee Total	=	**$232,701.08**

WETLAND MITIGATION FEE	**ACREAGE PERMANENTLY IMPACTED (TABLE 1)[1]**		**2021 FEE PER ACRE (SUBJECT TO CHANGE)[2]**		
Riparian woodland / scrub		x	$85,924.69	=	$0.00
Perennial Wetland		x	$117,581.16	=	$0.00
Seasonal Wetland		x	$254,759.18	=	$0.00
Alkali Wetland		x	$241,192.12	=	$0.00
Ponds		x	$128,133.32	=	$0.00
Aquatic (open water)		x	$64,820.38	=	$0.00
Slough / Channel		x	$146,222.72	=	$0.00
STREAMS	**LINEAR FEET PERMANENTLY IMPACTED (TABLE 1)**		**2021 FEE PER LINEAR FT (SUBJECT TO CHANGE)[2]**		
Streams 25 feet wide or less		x	$700.52	=	$0.00
Streams greater than 25 feet wide		x	$1,055.22	=	$0.00
			Wetland Mitigation Fee Total	=	**$0.00**
			0.00		

FEE REDUCTION[3]		
Development Fee reduction for land in lieu of fee	=	
Development Fee reduction (up to 33%) for permanent assessments	=	
Wetland Mitigation Fee reduction for wetland restoration/creation performed by applicant	=	
Reduction Total	=	**$0.00**

FINAL FEE CALCULATION		
Development Fee Total		$232,701.08
Wetland Mitigation Fee Total	+	$0.00
Fee Subtotal	=	**$232,701.08**
Contribution to Recovery	+	
TOTAL AMOUNT TO BE PAID	=	**$232,701.08**

[1] City/County planning staff will consult the land cover map in the Final HCP/NCCP and will reduce the acreage subject to the Development Fee by the acreage of the subject property that was identified in the Final HCP/NCCP as urban, turf, landfill or aqueduct land cover.

[2] Development Fees are adjusted annually according to a formula that includes both a Home Price Index (HPI) and a Consumer Price Index (CPI). The Wetland Mitigation Fees are adjusted according to a CPI. The Conservancy conducted the 2013 periodic fee audit required by the HCP/NCCP. Action by the County and participating cities is pending, which could result in adjustments to some or all fees in 2021.

[3] Fee reductions must be reviewed and approved by the Conservancy.

Template date: February 25, 2021

Appendix B: Cultural Report

ARCHAEOLOGICAL SURVEY REPORT AND HISTORIC ARCHITECTURE RESOURCE EVALUATION

7590 &7650 LONE TREE WAY BRENTWOOD, CONTRA COSTA COUNTY, CALIFORNIA

APNs 018-060-006 & 018-060-007

Prepared for:

Brian Kesler
Seecon Financial and Construction Company
4021 Port Chicago Highway
Concord, CA 94520

Prepared by:

Alex DeGeorgey, M.A., RPA
Nicholas Radtkey, B.A.
Alta Archaeological Consulting
2681 Cleveland Avenue
Santa Rosa, CA 95403

Project No: ALTA 2022-07

Key Words: USGS 7.5' Brentwood Quadrangle; 16.3-acre survey area; Township 1 North, Range 2 East, Section 1, Mount Diablo Base and Meridian; Historic–era Residential Complexes; Recommended Ineligible for California Register of Historical Resources.

March 24, 2022

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Attachment B – Native American Outreach
Attachment C – Historical Organization Outreach
Attachment D – Photo Sheet
Attachment E – Site Record

I. SUMMARY OF FINDINGS

The following Archaeological Survey Report (ASR) and Historic Architecture Resource Evaluation Report documents the adequacy of identification efforts and presents the results of investigations within the limits of the proposed project and surrounding lands (Project Area). The study was designed to identify any cultural resources located within the Project Area. Fieldwork was conducted on February 28, 2022 by Nicholas Radtkey. The survey entailed a cultural resources inventory of the Project Area and surrounding lands, approximately 16.3 acres. Ground surface visibility was generally poor due to dense grasses. Exposed mineral soils were inspected for evidence of cultural materials. Five buildings were identified as a part of literature review, and were documented during the archaeological field survey. These buildings are recommended as *ineligible* for listing on the California Register of Historic Resources (CRHR). The project as designed is not anticipated to have an impact on cultural resources. Management recommendations are provided to avoid potential impacts to unidentified cultural resources.

II. INTRODUCTION

Alta Archaeological Consulting (ALTA) was retained to conduct a cultural resources inventory as part of the permitting process for a residential subdivision. An archaeological field survey was completed by ALTA on February 28, 2022 for the purpose of identifying cultural resources within the Project Area. The entire Project Area was surveyed, totaling approximately 16.3 acres. Five buildings and one pig pen were identified during literature review and field survey. These properties are recommended as *ineligible* for inclusion on the CRHR. The following report documents the adequacy of identification efforts, presents the results of investigations within the Project Area boundaries, and makes recommendations for management of resources present on the property. This report addresses the responsibilities of the California Environmental Quality Act (CEQA), as codified in Public Resources Code sections 5097, and its implementing guidelines 21082 and 21083.2.

III. PROJECT LOCATION AND DESCRIPTION

The Project Area is located adjacent a suburban neighborhood in the City of Brentwood in Contra Costa County, California (Figure 1). It is situated on the USGS 7.5' Brentwood Quadrangle in Section 1 of Township 1 North, Range 2 West, in the Mount Diablo Base and Meridian (Figure 2). The Project Area comprises two adjoining parcels (018-060-007 and -006), totaling approximately 16.3 acres. The physical addresses of the parcels are 7590 and 7650 Lone Tree Way in Brentwood, California.

The project proponent is applying to the City of Brentwood (Lead Agency) to complete a major subdivision, which will divide the land into 38-lot lots. The proposed minimum size of each lot is 12,000 square feet. Residential streets will be constructed to connect lots on the northern end of the Project Area to Lone Tree Way to the south. Residences will be constructed on each lot. Grading, trenching for utilities, and installation of drainages will occur across the property. Frontage improvements on Lone Tree Way will include a median, sidewalks, bike lanes, and two travel lanes per direction. Figure 3 provides a site plan of the proposed subdivision and roadways.

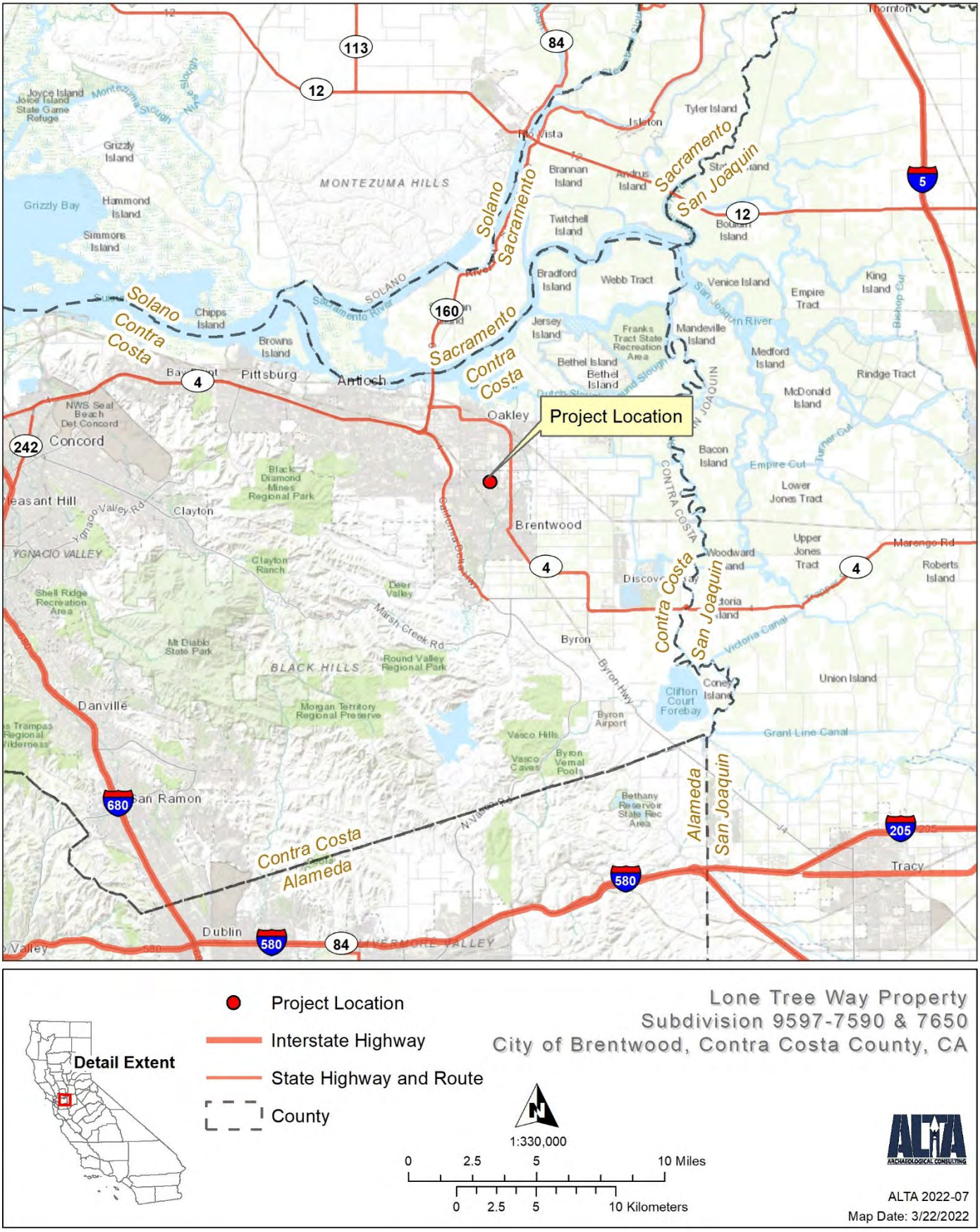
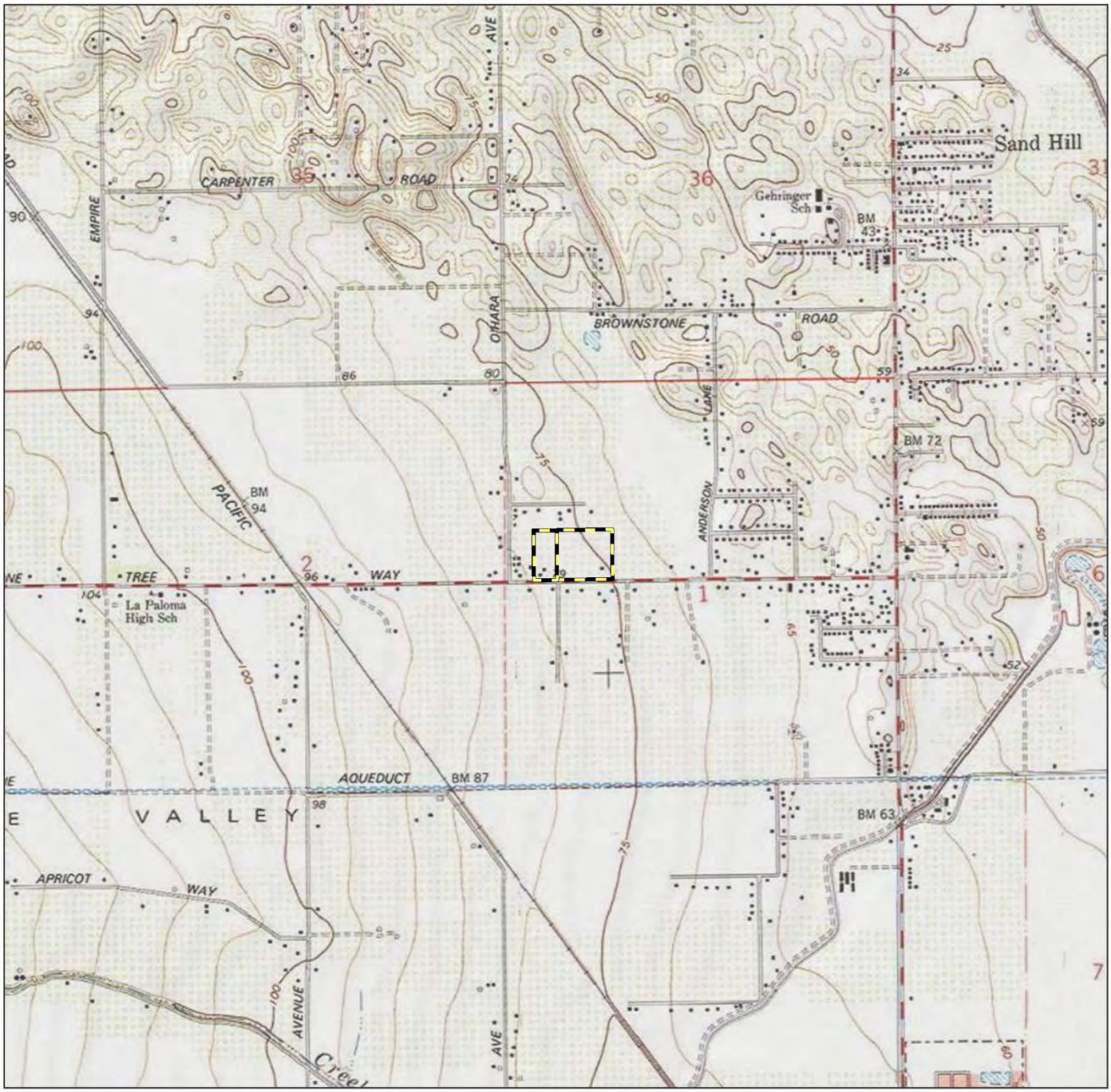


Figure 1. Project Vicinity



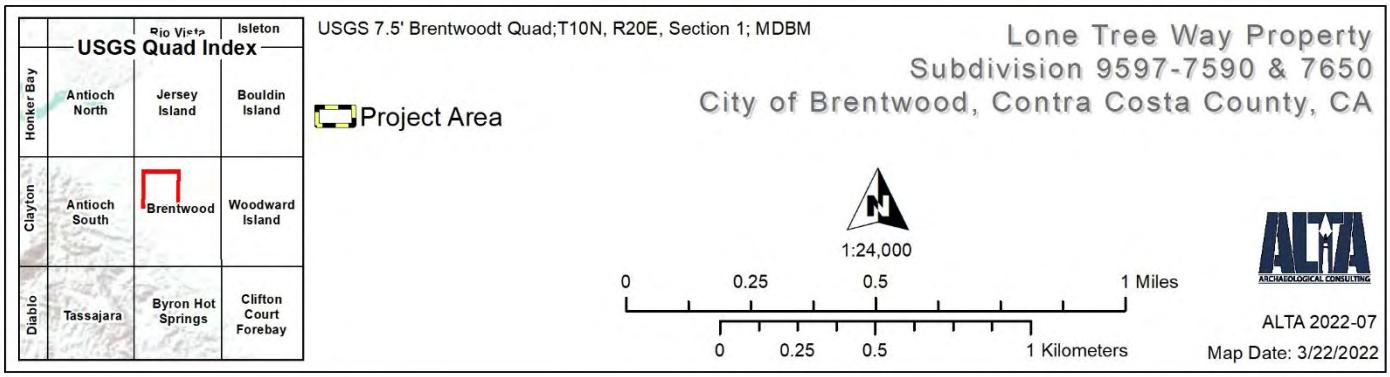


Figure 2. Project Location

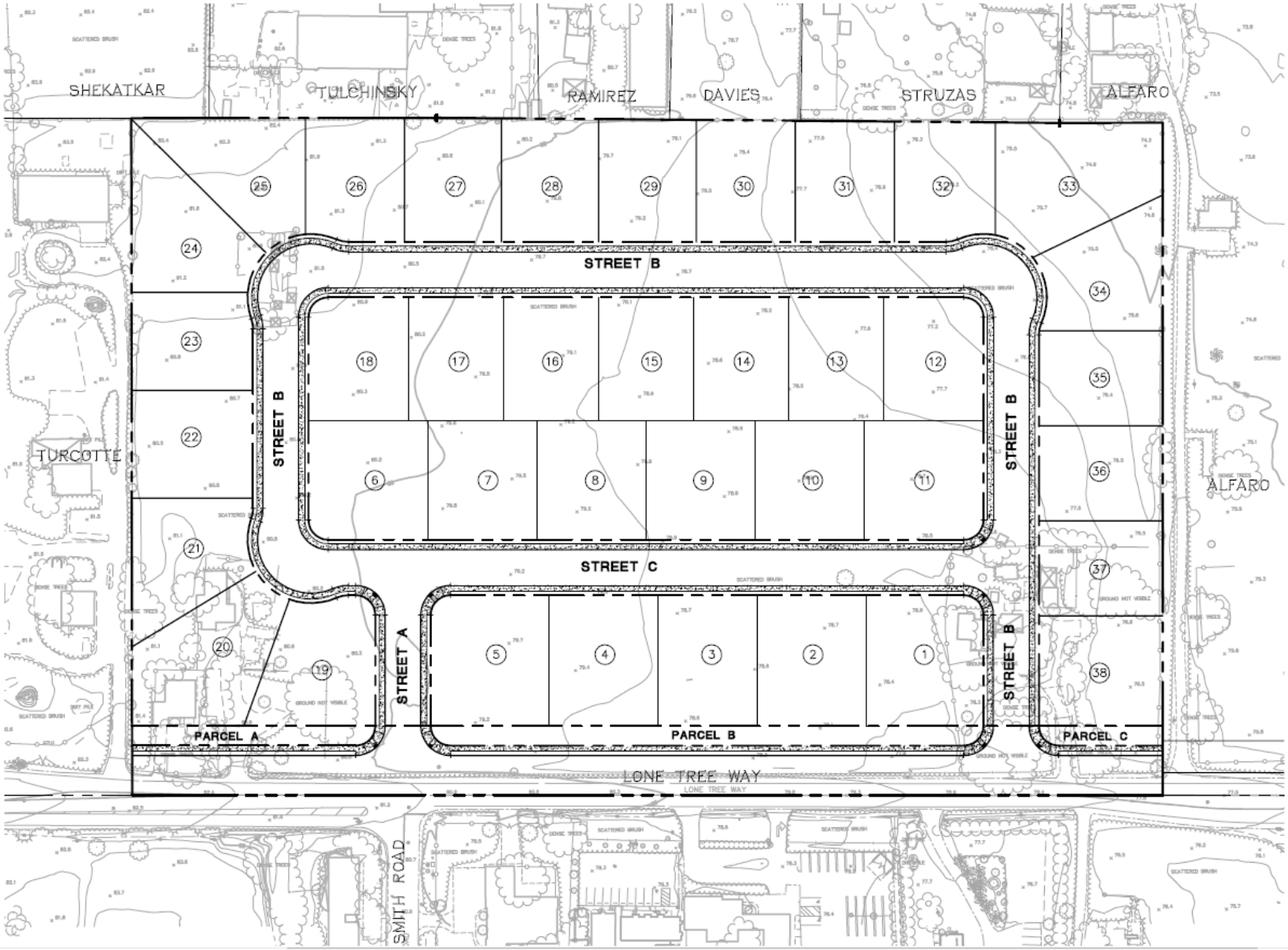


Figure 3. Tentative Site Plan (Adapted from Carruci 2022)

IV. REGULATORY CONTEXT

This section briefly discusses the nature and extent of State regulations that apply to the Project. As part of the compliance process the Project must comply with CEQA as amended, and its implementing regulations and guidelines, codified in Title 14 of the California Code of Regulations (CCR), which provide agencies guidance for compliance with environmental regulations.

CEQA applies to certain projects undertaken requiring approval by State and/or local agencies. Property owners, planners, developers, as well as State and local agencies are responsible for complying with CEQA's requirements regarding the identification and treatment of historic and prehistoric cultural resources. Under CEQA, cultural resources must be evaluated to determine their eligibility for listing in the California Register of Historic Resources (CRHR). If a cultural resource is determined *ineligible* for listing on the CRHR the resource is released from management responsibilities and a project can proceed without further cultural resource considerations.

As set forth in Section 5024.1(c) of the Public Resources Code for a cultural resource to be deemed "important" under CEQA and thus eligible for listing on the CRHR, it must meet at least one of the following criteria:

1. is associated with events that have made a significant contribution to the broad patterns of California History and cultural heritage; or
2. is associated with the lives of persons important to our past; or
3. embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possess high artistic value; or
4. has yielded or is likely to yield, information important to prehistory or history.

Archaeological resources are commonly evaluated with regard to Criteria 4 (research potential). Historic-era structures older than 50 years are most commonly evaluated in reference to Criteria 1 (important events), Criteria 2 (important persons) or Criteria 3 (architectural value). To be considered eligible under these criteria the property, must retain sufficient integrity to convey its important qualities. Integrity is judged in relation to seven aspects including: location, design, setting, materials, workmanship, feeling, and association.

Guidelines for the implementation of CEQA define procedures, types of activities, persons, and public agencies required to comply with CEQA. Section 15064.5(b) prescribes that project effects that would "cause a substantial adverse change in the significance of an historical resource" are significant effects on the environment. Substantial adverse changes include both physical changes to the historical resource, or to its immediate surroundings.

Section 21083.2 of the CEQA guidelines also defines "unique archaeological resources" as "any archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and show that there is a demonstrable public interest in that information.
- Has a special and particular quality, such as being the oldest of its type or the best available example of its type.

- Is directly associated with a scientifically recognized important prehistoric or historic event or person."

This definition is equally applicable to recognizing “a unique paleontological resource or site.” CEQA Section 15064.5 (a)(3)(D), which indicates “generally, a resource shall be considered historically significant if it has yielded, or may be likely to yield, information important in prehistory or history,” provides additional guidance.

V. BACKGROUND

As the significance of cultural resources is best assessed with regard to environmental and cultural contexts, descriptions of the natural and cultural setting of the project region are presented below.

Environment

The Project Area is situated within the Coast Ranges geologic province (Jennings et al. 1977). The Coast Ranges are comprised of numerous rugged north-south trending ridges and valleys that run parallel to a series of faults and folds. Formation of these ranges is generally attributed to events associated with subduction of the Pacific Plate beneath the western border of North America. The bedrock that underlies the region is a complex assemblage of highly deformed, fractured, and weathered sedimentary, igneous, and metamorphic rocks. Rocks of this formation, the oldest in the area, are often weakly metamorphosed, and consist of greywacke shale interspersed with discontinuous bodies of ultramafic rock such as greenstone, schist, and serpentine. The repeated folding and faulting are reflected in the complex structure of Franciscan rocks and area topography (Schoenherr 1995:265). The specific bedrock geology of the Project Area is composed of Quaternary alluvium and marine deposits. This is an unconsolidated formation primarily composed of coarse-detrital and fine-detrital deposits from alluvium, lakes, playas, and terrace deposits. Marine components occur nearer to the coast, but the formation generally does not originate in marine deposits (Jennings et al. 1977).

Soils in the Project Area consist of an even split between Delhi series sand and Rincon series silty clay loam. Soils of the Rincon series are deep, well-drained soils formed in alluvium weathered from sedimentary rocks. The A horizon extends to approximately 16 inches below surface, and consists of dark gray silty clay loam. The B horizon continues to approximately 40 inches below surface, and consists of a transition from dark grayish brown to brown sandy clay loam. The C horizon, between 40 and 60 inches, most resembles the Delhi series, appearing as a yellowish brown sandy clay loam and sandy loam (USDA 2006, 2017).

The project is located in the City of Brentwood, in eastern Contra Costa County. This area lies near the fan of the Sacramento-San Joaquin River Delta. Elevation in the Project Area ranges between approximately 75 and 80 feet above mean sea level. The project site is situated the northeastern portion of Lone Tree Valley. The nearest water source is Sand Creek, a perennial stream, which lies 1.3 miles southwest of the Project Area. The Project Area is in an undeveloped rural residential lot populated with native and nonnative annual and perennial grasses. Most trees in this area are imported ornamentals, rather than native species. This area is characterized by a Mediterranean climate that averages between 10 and 16 inches of rainfall annually (USDA 2017). The winters are cool and wet, and the summers are warm and dry.

Prehistory

Over thousands of years, ancestral Native Americans of the San Francisco Bay Area created a rich and diverse archaeological record. Proto-Utian groups, speakers of Costanoan and Miwok languages, are thought to have entered the Bay Area through the Delta Region about 4,500 years ago displacing Hokan speakers within this vicinity (Moratto 1984:293). The development of complex hunter-gatherer societies in the Bay Area first appears about 4,000 years ago when tribal people began building a series of large shellmounds (cf. Lightfoot and Luby 2002; Milliken et al. 2007; Moratto 1984: 276, 281-283). Over a century of archaeological investigations in the Bay Area and California Delta have resulted in the development of a number of chronological frameworks to understand the prehistory of the region (Beardsley 1948, 1954; Fredrickson 1973, 1974; Gerow 1954, Heizer 1958; Lillard et al. 1939; Ragir 1972). The recently published *San Francisco Bay-Delta Region Regional Context and Research Design for Native American Archaeological Resources, Caltrans District 4* (Byrd et al. 2017) provides a comprehensive synthesis of previous archaeological studies and outlines a series of research topics for the region. This volume advocates for the use of Scheme D (Groza et al. 2011) to provide a framework for understanding the cultural chronology of the region. Scheme D is a shell bead typology that affiliates bead types with discrete periods of time.

Temporally distinct shell beads made of the purple olive snail (*Olivella sp.*) were widely traded beginning in the middle Holocene, extending as far as the central Great Basin. Due to their widespread use and resilience, and because bead styles changed through time, they are useful as time markers (c.f. Bennyhoff and Hughes 1987; Vellanoweth 2001). Scheme D is based on 140 radiocarbon dates using the Accelerated Mass Spectrometer method on *Olivella* shell beads. These units of time are referred to as *bead style horizons* (Groza et al. 2011:18). Bead style horizons are labeled within the Early, Middle, and Late Periods and based on the bead type nomenclature established by (Bennyhoff and Hughes 1987) and subsequently adapted by Milliken et al. (2007) and Groza et al. (2011).

During the Early Period (8000-3500 B.C), native peoples of the Bay Area practiced a mobile foraging lifestyle. Artifacts commonly associated with the Early Period sites include wide–stemmed and leaf–shaped projectile points dart points, milling slabs, and handstones. These artifacts, paired with archaeobotanical evidence, suggest a mixed economy of game hunting, acorn processing, and diversified use of floral and faunal resources (Milliken et al. 2007:114). The Early Period/Middle Period (3500-500 B.C.) heralded an increase in sedentism, marked materially by the spread of the less–portable mortar and pestle. This period also saw a flourishing of shell bead types in burial lots, particularly rectangular cut beads (Milliken et al. 114-115; Groza et al. 140-145).

The Lower Middle Period (500 B.C.-A.D. 430) is characterized by an abrupt disappearance of rectangular shell beads from the Bay Area as well as central and southern California. These were replaced by new round types such as split–beveled and tiny saucer *Olivella* beads, which Groza et al. (2011) classify as Bead Horizon M1. As such, a bead trading economy seems to have taken off at this time. Mortar and pestle milling technology continued to spread, leaving milling slab technology mostly confined to coastal sites (Milliken et al. 2007:115-116).

The saucer bead trade economy seems to have abruptly collapsed during the Upper Middle Period (A.D. 430-1050). Many bead–manufacturing sites dating to Bead Horizon M1 were abandoned at this time. Bead Horizon M2, characterized by wide chipped– and ground–edge *Olivella* saddle beads, generally replaced the saucer beads (Groza et al. 2011:146-147). Additionally, burial

practices identified as the Meganos Aspect began to appear in the East Bay. This aspect, defined by extended burials, replaced flexed burials of previous times. Saucer beads decrease dramatically in these burial contexts over time (Milliken et al. 2007:116).

The Middle/Late Transition (Groza et al. 2011:148-149) demonstrates the widest diversity of *Olivella* bead types in California prehistory, including many shapes of split, shelved, saucer, and sequin beads in punched and perforated varieties. The advent of the bow and arrow occurred during this time, represented in Central California by the Stockton serrated series (Milliken et al. 2007:117). This reduction of projectile point size corresponds with an increase in manufacturing of finished points from Napa Glass Mountain obsidian at locations distant from the material source. Other items, including the flanged pipe, the *Olivella* callus cup bead, and the abalone "banjo" or "big head" pendant, appear at this time, indicating an elaboration of ritual and ceremonial practice (Milliken 2007:116-117). These trends all point towards a further increase in sedentism.

The cultural practices of California Native peoples documented by Spanish colonists in the 1500s originate in the traditions of the Phase I of the Late Period (A.D. 1050-1550). This time saw an increase in prestige items in burial contexts, suggesting an increase in social stratification.

The arrival of the Spanish during the Phase II of the Late Period (post-A.D. 1550) coincided with the abandonment of the *Olivella* sequin and cup beads, replaced by lipped and spire–lopped types. The Bay Area saw an explosion of technological and material culture innovation at this time, including the "toggle harpoon, hopper mortar, plain corner–notched arrow–sized projectile point, clamshell disk beads, [and] magnesite tube beads" (Milliken et al. 2007:117).

Ethnography

Prior to Euro-American intrusion, speakers of Bay Miwok languages lived throughout the lands south of the San Joaquin Delta. The following ethnographic summary is not intended as a thorough description of Bay Miwok culture, but instead is meant to provide a background to the present cultural resource investigation with specific references to the Project Area. In this section, the past tense is sometimes used when referring to native peoples because this is a historical study. This convention is not intended to suggest that Coast Miwok people only existed in the past. To the contrary, Bay Miwok peoples have strong cultural and social identities today.

Bay Miwok languages, also generally called *saclan* in historical texts, are part of a larger family of Miwok languages stretching between the Sierra Nevada and the North Bay (Beeler 1959; Cook 1957; Kroeber 1925). Speakers of the ancestral Miwok language speakers likely arrived in the area around 4500 BP, displacing Hokan language speakers (Moratto 1984:551-552). For the purposes of this report, following Milliken (1995:243), *saclan* refers to a subset of Bay Miwok speakers, rather than representing the entire Bay Miwok language group.

Bay Miwok speakers lived in semi–sedentary villages organized into local tribes (Levy 1978:410). These groups usually included between 100 and 300 community members, which were then broken into villages of approximately 21 people (Cook 1955:35). The government of these groups was led by a single man, whose position was patrilineal. This headman was treated as a royal, and received the services of many assistants (Aginsky 1943:431). Speakers, who acted as tellers of news within the community, and messengers, who communicated with neighboring local tribes, carried significant political clout within their groups (Gifford 1955:264). Houses in these communities were

primarily made of bark slabs arranged in a conical form, while more elaborate semi–subterranean assembly houses were the central gathering places of villages (Levy 1978:408).

As with many groups throughout the Central Valley and the Bay Area, Bay Miwok peoples practiced a hunter–gatherer lifestyle. They subsisted largely on acorns, but supplemented with an abundance of terrestrial, littoral, riparian, and marine resources. Deer were the most important game animal, followed closely by rabbits, which were driven into nets by whole communities. A successful hunter shared the harvest among members of the hunting party, who in turn distributed the meat among families (Levy 1978:404).

By virtue of living in the East Bay, Bay Miwok peoples lay in the center of a trade network extending between the Bay Area and the Sierra Nevada. Traders carried beads made of *Olivella sp.* and other shells east through their territory to the Sierra Nevada and Great Basin, while others brought obsidian from the east. The Bay Miwok participated in trade supplying bows and baskets (Levy 1978:406, 412).

Two groups of Bay Miwok speakers, known as the *julpun* and *volvon,* are known to have lived in the Brentwood area The phonetic similarities between these names and transcription errors in records have caused considerable confusion over which groups held the land up to Spanish colonization. Both *volvon* and *julpun* peoples appear in mission records at San Francisco in 1806 (Milliken 1995:246). When John Marsh arrived in the area, he identified the approximately 30 people living on his claim as “pulpunes,” a transcription which Bennyhoff (1977:144) and Milliken (1995:246) believe refer to *julpun* peoples who had escaped the missions. However, Marsh’s principal biographer, Lyman (1930), consistently refers to this same group as “Bolgones,” a term phonetically more closely resembling *volvon.* Following Levy (1978:412), Milliken (1995:259) places the *volvon* on the eastern slopes of Mount Diablo, leading up to Marsh Creek. The *julpun* group held the lands northeast of the *volvon,* from the southern end of Marsh Creek to the southern bank of the San Joaquin River Delta (Milliken 1995:246). The Project Area thus lies in a fluid border region between the two groups.

History

Early Exploration and Settlement

Few attempts at colonial settlement reached into the Brentwood area during the earliest European contact with California. The establishment of the Presidio of San Francisco and Mission Dolores in 1776, as well as of subsequent missions around the Bay Area up to 1823, drew heavily upon Bay Miwok speaking peoples. Up to 1804, these were mostly *saclan* peoples from west of Mount Diablo, but beginning in 1804, large numbers of *volvon* peoples began appearing in mission records at Mission Dolores and Mission San José. These peoples were likely captured by Spanish military raiders, whose goal was to capture Native peoples (“neophytes”) for baptism and compulsory labor at the missions (Milliken et al. 2009:111). The number of *volvon* speakers in the missions declined sharply beginning with a measles

The Mexican Period

The Project Area lies just north of the former boundary of Rancho Los Méganos. This rancho was first granted to José Noriega in 1835 by Alta California governor José Castro (Munro-Fraser 1882:304). Noriega was a member of the 1833 Híjar-Padrés colony, a group of people chosen by Mexican president Valentín Gómez Farías to settle in Alta California with the aim to secularize the mission lands and provide a defensive influence against encroaching Russian and American

colonists (Ellison 1953:13-14). He sold the rancho in 1837 to John Marsh, the first American to practice medicine in California. Marsh became a Mexican citizen to substantiate his claim, but exerted substantial political influence in undermining the Alta California government on behalf of the United States (Lewis 1993:329). Like most rancheros in Alta California, Noriega and Marsh used Rancho Los Méganos to raise cattle, and participated in the hide and tallow industry which defined Alta California's economy (Pubols 2009:243). A large group of "pulpunes" peoples, as Marsh identified them, lived on and operated Marsh's cattle ranch alongside as Mexican *vaqueros.* As late as the end of the Mexican period, no settlement was known between Marsh's house on Marsh Creek and the coastline to the north (Hulaniski 1917:118).

Figure 4. Daguerreotype of John Marsh in 1852 (Courtesy of the Bancroft Library, University of California, Berkeley).

The American Period

With the end of the Mexican-American War in 1848 and the subsequent discovery of gold at Sutter's Mill, a wave of Americans rushed to California. Many Americans squatted on rancho lands such as John Marsh's Rancho Los Méganos, while others claimed lands outside of rancho boundaries by preemption (Venit-Shelton 2013:33). Though the Land Commission validated most of Marsh's claim to Rancho Los Méganos in 1857, the property was soon subdivided and sold to Americans (Munro-Fraser 1882:304-306). The heirs of John Marsh continued his legacy of encouraging American settlement by donating land to start the town of Brentwood along the course of the railroad. Brentwood was so named to honor the Marsh family's origins in Brentwood, Essex, England (Munro-

Fraser 1882:496). The first business, a store owned by one Louis Gruneaeur, was built in the fall of 1878; the population in 1882 stood around 100 (Munro-Fraser 1882:497). The addition of schools, hotels, and businesses through the 1890s through 1910s quickly changed the nature of Brentwood from a pastoral railroad hub to an agricultural and commercial center of the East Bay.

The commission merchant firm of Balfour, Guthrie and Company held considerable sway over the region in the early 20th century, particularly in the town of Brentwood. This company, based in London, began its tenure in California by importing British manufactured goods and exporting Californian wheat to a global market. This initial scope expanded broadly as associated British investors lent their capital to the company's varying ventures and misadventures, including lumber, coal, commercial fisheries, mortgage loans, and real estate investment (Rothstein 1963:393). These latter two industries led the company to purchase Rancho Los Méganos in 1910. Balfour, Guthrie and Company was responsible for developing pastoral land around Brentwood into commercial wheat fields, establishing the Bank of Brentwood, constructing new buildings to develop the town, and for subdividing the land into parcels which facilitated extensive urban development (Hulaniski 1917:281-282).

Figure 5. Aerial view of Brentwood in 1922 (Courtesy of the East Contra Costa Historical Society).

Among the many enduring contributions of Balfour, Guthrie, and Company to the area was to build infrastructure which supported intensive agriculture. In early years, the sandy soils of Lone Tree Valley were deemed generally poor for agriculture. To solve this issue, the engineers at Balfour, Guthrie, and Company began constructing an irrigation district from Indian River in 1888. This concrete ditch system serviced 13,000 acres in the area, and cost around $500,000. The company initially supported the growth of wheat, oats, and barley on company lands and neighboring farms. Over time, the economy shifted towards fruit, English walnuts, and alfalfa In addition to this work, Balfour, Guthrie, and Company established an experimental farm, where they successfully grew

more delicate crops, such as celery, asparagus, and potatoes, alongside other fruits and vegetables (HRC 1926:166). Aerial imagery reveals extensive orchards in the area as late as the 1960s (CAS 1958, 1965; FAS 1939)

During the Great Depression, many agricultural workers fleeing the Midwest found their way to Brentwood to work. Davis Camp, located a mile southeast of the Project Area along Marsh Creek southeast of the intersection of Brentwood Boulevard and Sunset Road, became a center for these Dust Bowl migrants. This camp was operated under the auspices of O.R. “Cal” Davis, a Dust Bowl migrant himself. As many as 1000 people lived in tents and shacks at Davis Camp by 1934 (Hartley 2009). Local farmers would hire workers on an as–needed basis from Davis Camp to work in fields, paying hourly. Descendants recall that the apricot industry prevailed in Brentwood at this time. Some of these families saved enough to buy property and farm themselves because of the social support of Davis Camp (Kukulich 2019).

Figure 6. Davis Camp in 1940, photographed by Dorothea Lange (Call no. LNG40053.1, Oakland Museum of California).

Despite the successes of Davis Camp, labor strife characterized the apricot industry of this time. Protesting low pay, many farm laborers participated in an ultimately unsuccessful strike against apricot farmers in 1934. Incoming sheriff John A. Miller campaigned on resolving this tension, and implemented the Brentwood–Miller Plan, which at once negotiated higher pay for workers and kept close tabs on the activities of farm laborers. This involved registration with the sheriff’s office and intense scrutiny against unionization efforts (Baum 1963:40-42, 46).

The town of Brentwood voted for incorporation in 1948. In 1963, its first proper City Hall was constructed. The trajectory of the city since its incorporation has been an emphasis on residential

development, which continues to the present. The expansion of suburban development has meant the removal of many former farms (ECCHS 2021).

Project Area History
As early as 1875, historic maps identify the owner of the Project Area and surrounding lands as the O'Brien family (CCCAD 1875). Patrick O'Brien Sr. (1828-1898) came to Contra Costa County in 1869 with his family. His son, Patrick Jr. (1859-1912), attended school at the Lone Tree School to the west of the Project Area, and became one of its trustees later in life. Patrick O'Brien Jr. remained on the property his whole life, growing grapes and almonds (Hulaniski 1917:551).

Patrick O'Brien Jr. sold a 270-acre portion of his property to Joseph G. Prewett (1861-1932), a farmer and stock raiser. Prewett married his daughter Ellen in 1898. Prewett, a native of Illinois, came to the area in 1884, and worked as a tenant farmer on local properties. Prewett supposedly bears responsibility for naming Lone Tree Way, "because a solemn sycamore tree grew in the plain between Brentwood and Antioch where the road connecting the two towns was to be constructed (Hartley 2010:4a). This story seems apocryphal, as the Lone Tree toponym dates to as far back as 1869 (Hulaniski 1917:217). Prewett further acted as the vice-president of the First National Bank of Antioch, the president of the Antioch Warehouse Association, and president of horse breeding associations in Oakley and Brentwood (Hulaniski 1917:540). The Prewett family held a longstanding reputation for civic involvement and charitable work, donating land for parks, participating in school boards, and developing local infrastructure (ECT 2017). Prewett Ranch, a subdivision immediately south of the Project Area, was a portion of the actual Prewett Ranch, as was the Project Area itself. The 1912 Prewetts Ellendale subdivision, a large tract of land enveloping the Project Area, was presumably named for Ellen O'Brien Prewett.

VI. SOURCES CONSULTED

Records Search

On January 26, 2022, ALTA archaeologist Melanie Radtkey conducted a records search (File Number 21-1214) at the Northwest Information Center (NWIC) located on the campus of Sonoma State University. The NWIC, an affiliate of the State of California Office of Historic Preservation is the official state repository of archaeological and historical records and reports for an 18-county area that includes Contra Costa County. The records search included a review of all study reports and resources on file within a quarter-mile radius of the Project Area. Sources consulted include archaeological site and survey base maps, survey reports, site records, and historic General Land Office (GLO) maps.

Included in the review were:

- California Inventory of Historical Resources (CA Dept. of Parks and Rec. 1976)
- California Historical Landmarks for Contra Costa County (CA-OHP 1990)
- California Points of Historical Interest (CA-OHP 1992)
- Built Environment Resources Directory Listing (BERD) (CA-OHP January 2020)
- Historic Properties Directory (CA-OHP April 2012), including the National Register of Historic Places, California Historical Landmarks, and California Points of Historical Interest

Review of historic registers and inventories indicate that no historical landmarks or points of interest are present in the Project Area. No National Register listed or eligible properties are located within the 0.5-mile visual area of the Project Area.

Review of archaeological site and survey maps revealed that nine cultural resource studies have been previously performed within a quarter-mile radius of the Project Area (Table 1). Approximately 30% of the quarter-mile records search radius has been previously surveyed. No studies have been conducted within the Project Area.

Table 1. Summary of Previous Cultural Resources Studies within Search Radius

Report No.	Authors	Year	Description
S-018557	Jones & Stokes Associates, Inc.	1996	Cultural Resources Investigation for the Proposed City of Brentwood Interim Water Supply Program, Contra Costa County, California
S-025281	Miley Paul Holman	2001	Archival Research and Field Inspection of the Brentwood Property, APN 018-090-015 and 018-090-018, Located at Lone Tree Way and O'Hara Avenue, Brentwood, Contra Costa County, California (Letter Report)
S-025283	Miley Paul Holman	2001	Archaeological Field Inspection of the Brentwood Property, APN 018-110-006 and 007, 108-100-027 and 028, Brentwood, Contra Costa County, California (Letter Report)
S-025302	Miley Paul Holman	2002	Archaeological Field Inspection of the Rippy Property, 3215 O'Hara Avenue, Brentwood, Contra Costa County, California (Letter Report)
S-029769	William Self	2005	Survey and Assessment of the Prewett Ranch Property in Brentwood, California (letter report)
S-029769a	William Self	2005	Survey and Assessment of the Anderson Lane Easement of the Prewett Ranch Property in Brentwood, California (letter report)
S-030673	William Self	2005	Cultural Resources Survey for Passport Homes in Brentwood, California (letter report)
S-032028	Joy Longfellow	2006	A Cultural Resources Study of a Parcel at 7765 Lone Tree Way Project, Brentwood, Contra Costa County, California (LSA Project # RHB0601) (letter report)
S-039388	Allen G Pastron	2010	Limited Phase I Cultural Resources Evaluation of the English Congregation of Jehovah's Witnesses Project, Brentwood, California

One historic-era cultural resource is documented within a quarter-mile radius of the Project Area. This site (P-07-002684) is a complex of three 1930s bungalow-style ranch houses with associated outbuildings and features (Estes and Price 2005). There are no previously-documented cultural resources within the Project Area.

Historic Map Review

Review of historic maps of the area was completed to better understand the timing of development within the Project Area and recognize historic features. The following historic maps were reviewed as part of this investigation.

Brown, Elam C.

1892 *Rancho Los Meganos*. Ownership map. Call no. F-002. Contra Costa County Historical Society. 1:7,920 scale.

Bureau of Land Management (BLM)
1862 Survey plat of T1N R2E. General Land Office Records, Bureau of Land Management, Washington, D.C. 1:31,680 scale.

Cartwright Aerial Surveys (CAS)
1958 Aerial photo frame 10V-186. Flight BUU_1958. University of Santa Barbara Map and Imagery Lab. 1:20,000 scale.
1965 Aerial photo frame 25-64. Flight CAS_65_130. University of Santa Barbara Map and Imagery Lab. 1:12,000 scale.

Contra Costa County Assessor's Deputies (CCCAD)
1875 *Antioch to Oakley.* Tax Assessor map. Call no. T-006. Contra Costa County Historical Society. 1:31,680 scale.
1882 *Antioch to Oakley.* Tax Assessor map. Call no. T-027. Contra Costa County Historical Society. 1:31,680 scale.
1885 *Antioch to Oakley.* Tax Assessor map. Call no. T-046. Contra Costa County Historical Society. 1:31,680 scale.
1889 *Antioch to Oakley.* Tax Assessor map. Call no. T-066. Contra Costa County Historical Society. 1:31,680 scale.
1892 *Antioch to Oakley.* Tax Assessor map. Call no. T-102. Contra Costa County Historical Society. 1:31,680 scale.

Contra Costa County Board of Supervisors (CCCBOS)
1871 *Topographical Map of Contra Costa County*. California Historical Society Map Collection. 1:63,360 scale.

Fairchild Aerial Surveys (FAS)
1939 Aerial photo frame 268-65. Flight C_5750. University of Santa Barbara Map and Imagery Lab. 1:20,000 scale.

United States District Court (USDC)
184- *Diseño del Rancho Los Meganos*. Bancroft Library, University of California, Berkeley. No scale.
1853a *Map of the Rancho Los Meganos*. Bancroft Library, University of California, Berkeley. 1: 31,680 scale.
1853b *Map of the Rancho Los Meganos*. Hand-drawn duplicate. Bancroft Library, University of California, Berkeley. 1: 31,680 scale.

United States Geological Survey (USGS)
1914 Brentwood Topographic Map, 1:31,680 scale.
1916 Byron Topographic Map, 1:62,500 scale.
1941 Byron Topographic Map, 1:62,500 scale.
1948 Byron Topographic Map, 1:62,500 scale.
1955 Brentwood Topographic Map, 1:24,000 scale.
1965 Brentwood Topographic Map, 1:24,000 scale.

1970a Brentwood Topographic Map, 1:24,000 scale.
1970b Brentwood Topographic Map, 1:24,000 scale.
1978a Brentwood Topographic Map, 1:24,000 scale.
1978b Brentwood Topographic Map, 1:24,000 scale.
1987 Aerial photo frame 515-168. Flight NAPP. University of Santa Barbara Map and Imagery Lab. 1:40,000 scale.
2012 Brentwood Topographic Map, 1:24,000 scale.
2015 Brentwood Topographic Map, 1:24,000 scale.
2018 Brentwood Topographic Map, 1:24,000 scale.
2021 Brentwood Topographic Map, 1:24,000 scale.

Weber, C. F.
1913 *Map of Contra Costa & Alameda Counties, Cal.* 1:132,000 scale.

The earliest map of the area is a *diseño* of Rancho Los Meganos, drawn for John Marsh in the mid-1840s. The nearest illustrated features to the Project Area on this map are trees along “Arroyo de los Poblanos” in the vicinity of Sand Creek, and a large patch of chamise to the north. Roads on this map line the western edge of Lone Tree Valley, with a single road crossing the valley east-to-west to the south of Sand Creek. No structures appear on this map (USDC 184-). The first structures to appear in local maps appear on the 1853 survey of the Rancho, which encompasses lands outside the bounds to Marsh’s Landing. This map demonstrates an increased number of roads crossing the rancho as well, including one connecting “Dr. J. Marsh’s Residence” to the south with “Old Embarcadero” near Jersey Island. The large patch of chamise and the road parallel to Arroyo de los Poblanos appear here. Section 1 of T1N R2E is delineated at the convergence of the stream with the chamise, but no roads, buildings, or other manmade features appear (USDC 1853a,b). The earliest cadastral survey plat of the township labels two roads roughly parallel to Marsh Creek as “Road from Deer Valley to Iron House Landing.” Sand Creek, identified as Dry Creek, runs under these roads, as well as “County Road from Martinez to Stockton.” No improvements appear in the Project Area, though a hatched area labeled “low sand hills covered with chamisal and scattering oaks” appears half a mile to its southeast (BLM 1862). By 1871, ranching activity appears in a wide radius of the Project Area. he nearest illustrated residence to the Project Area is owned by “Miller,” and appears in section 3, approximately one mile to the west of the Project Area. Dense chamise still appears to the north of the Project Area (CCCBOS 1871).

County Tax Assessor’s maps from the 1870s to the 1890s depict land ownership at an aliquot level. The Southern Pacific railroad bisects many properties on each edition of these maps, extending southeast from Antioch towards the town center of Brentwood. Many subdivisions appear both inside and outside Rancho Los Meganos. As early as 1875, the 160-acre northwestern quarter of section 1, enveloping the Project Area, and the quarter section adjacent to the west in section 2 are identified under the ownership of P. O’Brien. This remains the case as late as 1892 (CCCAD 1875, 1882, 1885, 1889, 1892; Brown 1892). By 1892, a single house appears on the 320-acre property, on the southern edge of the section line dividing sections 1 and 2. This house is labeled P. O’Brien’s house. Neighbors include Wills, Gann, McLauhlin, and James O’Hara (Brown 1892).

Figure 7. Detail of 1882 Tax Assessor map. The O'Brien property is outlined in yellow. The approximate Project Area is in red. (Courtesy of the Contra Costa County Historical Society).

By 1913, paved roads parallel the railroad and bisect sections of farmland. Brentwood appears as a town of a few blocks, confined within the boundaries of Rancho Los Meganos. The intersection of O'Hara Avenue and Lone Tree Way appears on this map. Pacific Gas and Electric Lines extending through Lone Tree Valley line the Project Area on its southern and western borders (Weber 1913). At this time, only a single house in the location of the aforementioned "P. O'Brien's house" appears on USGS quad maps (USGS 1914). Roads in the area generally conform to the section lines laid out by the cadastral survey. Residential development is sparse, only appearing slightly more densely to the north, but the average number of depicted structures in these farmlands does not exceed 15 in a 640-acre section. This remains the case on USGS quadrangles throughout the early 20th century (USGS 1916, 1941, 1948).

The first map to depict structures specifically in the Project Area is the 1955 Brentwood 24k quadrangle. This shows four buildings at 7590 Lone Tree Way, and one at 7650 Lone Tree Way (USGS 1955). These maps show a dramatic increase in residential development along Lone Tree Way, as well as to the east and northeast at Sand Hill. The basin of Lone Tree Valley appears undeveloped, and most roads conform to section lines, with only short local roads extending into farmland. This remains consistent through maps into the late 1970s (USGS 1955, 1965, 1970a, 1970b, 1978a, 1978b). Maps from 2012 to the present show that the farmlands have mostly been supplanted with residential development, and local roads fan widely over former farmlands (USGS 2012, 2015, 2018, 2021).

Aerial photography shows buildings on both properties as early as 1939 (FAS 1939). At 7590 Lone Tree Way, a single house and a barn appear near the southwestern corner of the property. Three buildings appear at 7650 Lone Tree Way. Planted trees cover most of the property. This remains consistent on aerial imagery through 1965 (CAS 1958, 1965). By 1985, the Project Area appears in

its current configuration, including a second residence and a livestock pen at 7590 Lone Tree Way (USGS 1987).

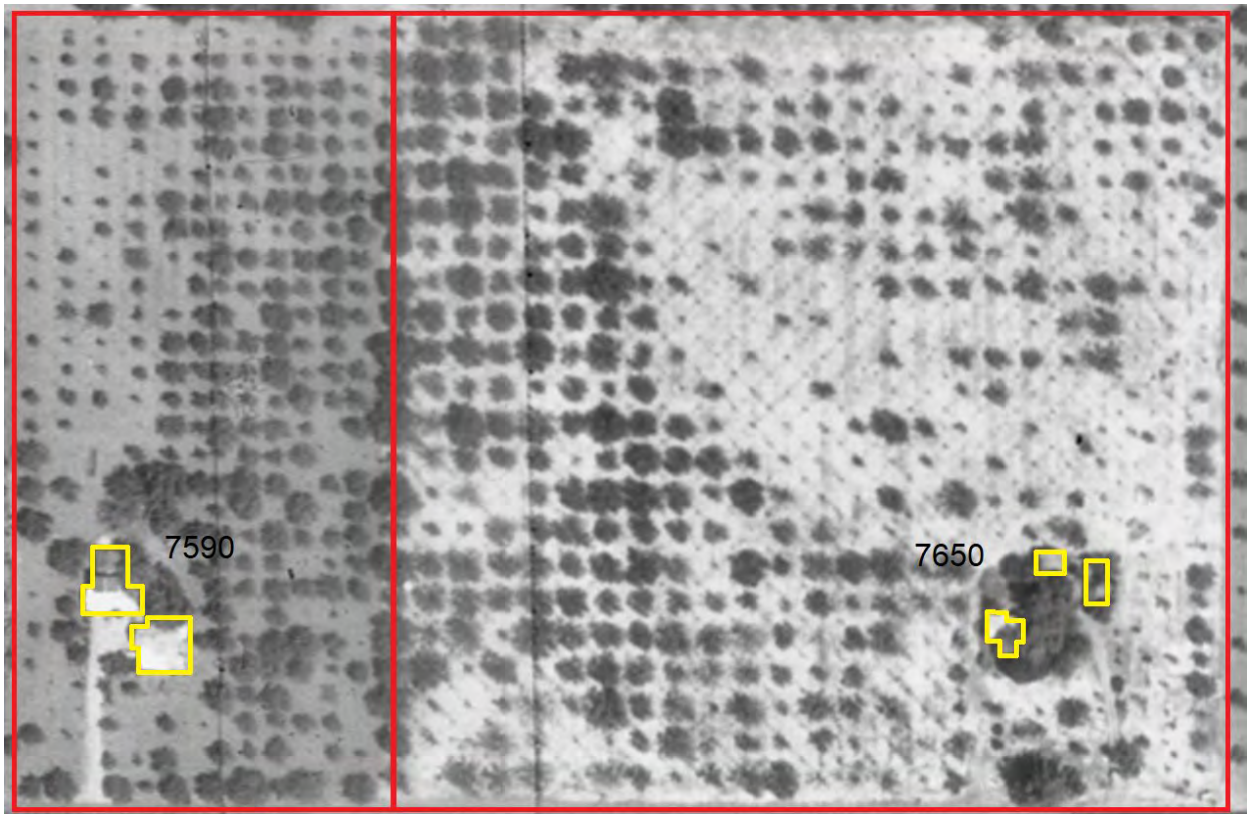


Figure 8. 1965 aerial image of the Project Area. (Courtesy of Map and Imagery Lab, University of California, Santa Barbara).

Ethnographic Literature Review

Available ethnographic literature was reviewed to identify cultural resources in the project vicinity. The following sources were consulted.

Bennyhoff, James A.
1977 Ethnogeography of the Plains Miwok. Center for Archaeological Research at Davis Publication Number 5. University of California at Davis.

Cook, Sherburne F.
1955 The Aboriginal Population of the San Joaquin Valley, California. *University of California Anthropological Records* 16(2):31-80.

Gifford, Edward W.
1955 Central Miwok Ceremonies. *University of California Anthropological Records* 14(4):261-318.

Kroeber, Alfred L.
1925 *Handbook of the Indians of California*. Bureau of Ethnology Bulletin 78. Smithsonian Institution, Washington, D.C.

Levy, Richard
1978 Eastern Miwok. In *Handbook of North American Indians, Bol. 8: California,* edited by Robert F. Heizer, pp. 485-495. Smithsonian Institution, Washington, D.C.

Merriam, Clinton Hart
1907 Distribution and Classification of the Mewan Stock of California. *American Anthropologist* 9(2):338-357.

Milliken, Randall
1995 *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area 1769-1810*. Ballena Press Anthropological Papers No. 43, Menlo Park, CA.

Milliken, Randall, Laurence H. Shoup, and Beverly R. Ortiz.
2009 *Ohlone/Costanoan Indians of the San Francisco Peninsula and their Neighbors, Yesterday and Today*. Report prepared for National Park Service, Golden Gate National Recreation Area, San Francisco.

As previously discussed, Bay Miwok–speaking groups known as the *volvon* and *julpun* lived in the vicinity of the Project Area (Milliken 1995:246, 259). The onslaught of violence wrought upon Bay Miwok peoples during colonization has left a vacuum of ethnographic knowledge about named village sites in the East Bay. Thus, the nearest ethnographically–known village site to the Project Area is the camp described by John Marsh on his arrival in 1837 (Lewis 1993:329; Milliken 1995:246).

Native American Outreach

Assembly Bill 52, which went into effect in July 2015, is an amendment to CEQA Section 5097.94 of the Public Resources Code. AB52 established a proactive communication process with all California Native American tribes identified by the Native American Heritage Commission (NAHC) with cultural ties to an area. This process is implemented on projects that file a notice of preparation for an EIR or notice of intent to adopt a negative or mitigated negative declaration. Under AB52, the Lead Agency is required to consult with tribes at tribal request. The bill further created a new class of resources under CEQA known as Tribal Cultural Resources (TCRs).

ALTA archaeologist Brianna Boyd contacted the NAHC on January 26, 2022 to request a review of the Sacred Lands file for information on Native American cultural resources in the study area and to request a list of Native American contacts in this area. In the response dated March 17, 2022, NAHC Cultural Resources Analyst Cody Campagne indicated that a search of the Sacred Lands File returned a negative result. The NAHC forwarded a list of suggested tribal entities to contact for their input or concerns regarding the project.

On January 26, 2022, a letter was sent to the Tribal Historic Preservation Officer (THPO) or appropriate representative of each tribal group associated with the Study Area. To date, no response(s) have been received from the Native community regarding this project. Attachment B provides copies of the Native American correspondences.

Historical Organization Outreach

On February 25, 2022, ALTA archaeologist Nicholas Radtkey sent emails to the Contra Costa County Historical Society and the East Contra Costa Historical Society, to gather information about the history of the Project Area which might influence the identification and evaluation of cultural resources. To date, no response has been received. Attachment C provides copies of these correspondences.

VII. FIELD METHODS

ALTA archaeologist and architectural historian Nicholas Radtkey conducted a field survey of the Project Area on February 28, 2022. Project design drawing, project maps and aerial imagery were used to correctly identify the Project Area. The full Project Area was surveyed, totaling 16.3 acres of land (Figure 4).

During archaeological survey, the Project Area was surveyed using intensive survey coverage with transects no greater than 10-meter intervals. Ground surface visibility was poor, about 20%, throughout the survey area due to dense grasses. A shovel was used to turn over the ground at irregular intervals during pedestrian survey, based on ground visibility. A total of 23 shovel pits were conducted at regular intervals throughout the Project Area. Digital photos were taken of the Project Area and surroundings (Attachment D).

The architectural portion of the survey entailed recording of all buildings and structures within the Project Area. This recording identified the age, materials, style, construction methods, chronology, and evidence of remodeling/modification in sufficient detail to write an evaluation for inclusion on the CRHR. Each building was measured with an open–reel tape, documented to describe both original and later construction, photographed from all façades and corners, and mapped. During field survey, a neighbor at 7570 Lone Tree Way volunteered information about the former property owners.

VIII. STUDY FINDINGS AND MANAGEMENT RECOMMENDATIONS

Study Findings

As previously discussed in section IV, this cultural resources inventory was conducted to address the responsibilities of CEQA, as codified in Public Resource Code sections 5097, and its implementing guidelines 21082 and 21083.2. No cultural resources were identified within the Project Area as a result of the records search or Native American communication. The literature review revealed the presence of two historic-era residential complexes and associated structures. These resources were recorded during archaeological field survey and documented on Department of Parks and Recreation Form 523 (see Attachment E). The resources are described below.

Resource Descriptions

The properties at 7590 and 7650 Lone Tree Way are former single–family residences and associated ancillary structures. Original buildings appear to date to around 1919, with later construction events evident around 1966 and in modern times (CCCAO 2021). Historical aerial imagery reveals the presence of fruit orchards on the properties, but this use has since lapsed (CAS 1965). The two properties appear to bear a relationship to one another, both in terms of historical

land use and architectural qualities. As such, they are recorded together rather than as separate resources. The properties have both suffered from demolition by neglect, failure of expedient and ill–fitting repairs, and occupation by transients.

7590 Lone Tree Way

The property at 7590 Lone Tree Way is comprised of two houses on the southern portion of the property and a large pig pen to the north. The oldest house, located at the northern end of the driveway from Lone Tree Way, dates to approximately 1939 (FAS 1939). The newer house, located west of the driveway's entrance to the parcel, postdates 1965 (CAS 1965). According to the neighbor to the west, this property and the adjacent property at 7650 Lone Tree Way belonged to the Nicoletti family from the 1940s to about 2012. The Nicoletti family lived in the 1919 house, and leased the 1916 house. This property remains in fair condition, as the buildings retain most of their structural integrity and functional properties. However, 10 years of abandonment, decaying materials, failure of expedient repairs, vandalism, and occupation by transients has taken a toll on the physical condition of the property.

Landscaping and Organization

A gravel driveway leads north from Lone Tree Way into the property. This leads into an open parking area surrounded by ornamental trees and olive trees. A concrete apron north of the parking area leads to the 1919 residence. A chain–link fence to the west leads into the 1966 residence. Aerial imagery dating to between 1939 and 1965 indicate the presence of a barn east of this parking area, but Google Earth aerial imagery reveals that this building was demolished in 2014. This area is now bare. A separate short driveway leads north from Lone Tree Way to the roll–up door of the garage attached to the 1966 residence.

1919 Residence

This house is a rear-facing T–plan two–story single–family residence. Property assessment records date the construction of this house to 1919 (CCCAO 2021). This house does not appear to conform to a formal architectural style. The house is visually defined by a side–gabled primary façade facing south, with a small extended front porch overhang. The front unit of the house comprises a kitchen and front room, with a centrally–placed front door on the primary façade. The rear of the house extends two units back. A single room sits atop this rear of the house, and forms a primary visual component from the right–of–way.

This building appears to rest on a post–and–pier foundation; however, a concrete apron patio abutting two sides of the house and stucco siding extending into the dirt obscures visibility of most of the foundation. The stucco siding of the building is painted beige. Simple butted wooden window casings frame the remaining single–pane double–hung wooden sash windows. However, windows on the eastern and southern façades have been replaced with a combination of aluminum sliders and vinyl double–hung windows over time. The eastern end of the front unit exhibits a large square outline of stucco application covering the extent of a much larger window, and now holds an aluminum slider. This, in tandem with the uneven condition of the window casings around the house, suggests that the stucco siding was applied over a previous type. All doors are replacements. The lower story features metal panel doors, while the upper story features a hollow core particle board door. Modern composition shingles and roll composition roofing top the low–pitch roof of the front and rear units, as well as the upper story. A steel chimney for a wood stove and vent stacks appear on the roofing. Fascia boards appear to have fallen off on the rear units, leaving exposed rafter tails on the short eaves. The upper room is accessible by an exterior staircase constructed of modern dimensional lumber. Despite its unconventional configuration, it appears nearly original to the

building, based on aerial imagery (FAS 1939). Utilities include electricity and gas, serviced by a PGE Smart Meter, water, and a Dish Network satellite dish. Most landscaping around this house lies in a yard to the northeast. Overgrown ornamental bushes and a single ornamental shade tree stand inside a fence made of both roll fencing and chain–link. The overall condition of this house is fair. It appears to have retained structural integrity in most aspects. However, a combination of deferred maintenance, abandonment, and recent occupation by transients has caused damage, including peeling paint, dry rot, loss of trims, broken windows, and vandalism.

1966 Residence

This house is a garage–in–front box Ranch dating to between 1965 and 1966 (CAS 1965; Hubka 2013:59; CCCAO 2021). The form of the house is a simple box–plan, with an attached one–car garage to the southwest. It appears original in configuration, with alterations primarily addressing utilities and openings. This house is situated in the southwestern corner of the lot, and faces Lone Tree Way.

The house appears to rest on a perimeter foundation. Like the older house, it is fully clad in beige stucco; however, this siding appears original. All windows are aluminum sliders, and appear original. The primary façade, facing south, exhibits two modern metal doors—a panel door on the house, and a similar roll–up door on the garage, both painted white. A short concrete sidewalk connects the front door to the driveway to the east, as well as a concrete patio area on the eastern façade. An aluminum glass sliding door on this eastern façade allows entry into the living room from the patio. The garage and the house each feature separate hipped roofs, but connect to allow indoor entry from the garage. The roof is clad in modern composition shingles, and ends in plumb fascia on open eaves. A steel chimney for a wood stove and vent stacks project from the hipped roof of the house. Utilities include electricity and gas, serviced by a PGE Smart Meter; water; and a Dish Network satellite dish. A yard fenced with 1x8” vertical board fence and chain–link fence wraps around the house. Ornamental flowers and trees stand in the front yard, providing privacy from traffic on Lone Tree Way. Overall, this house is in good condition, retaining much of its structural soundness. The occupation of transients and decay from neglect have not severely affected this house.

Pig Pen

A pig pen lies approximately 250 feet north of the 1919 residence, in an open field. This structure is configured in an L, and measures approximately 95 feet north to south by 60 feet east to west. The eastern half of the pen features a north-to-south aisle between two rows of berths of pigs. About 12 berths were discernable beneath collapsed structural materials. The southern bays feature concrete slabs and troughs. The southwestern most bay is overgrown by a fig tree. The western half of the pen is a cleared enclosure. The structure is constructed of a wide variety of found materials, including, but not limited to, corrugated sheet metal; baling wire; roll fencing; plywood sheets; rebar; tree branches; concrete; lumber in 2x4, 4x4, 1x6, and 1x12 dimensions; wire nails; and wood screws. The neighbor to the west says that this pig pen was for the family’s own use rather than for commercial production. This pig pen is in poor condition, suffering from abandonment and overgrowth of vegetation. It has collapsed in many sections.

7650 Lone Tree Way

This residential complex lies at the southeastern corner of 7650 Lone Tree Way. Aerial imagery shows that the original configuration of this residential complex was complete by 1939, but additions and repairs over time date to as recently as within 10 years (FAS 1939). Based on similarities in construction methods and design to the adjacent property at 7590 Lone Tree Way, the buildings at

this property likely date to around 1920. The property comprises three buildings arranged around a driveway. These buildings include a single-family residence, a workshop, and a detached garage. According to neighbors to the west, the Nicoletti family at 7590 Lone Tree Way owned this property, and leased it to renters. This residential complex is in generally poor condition, having suffered passive decay from around 10 years of abandonment and failure of poorly–executed repairs as well as active demolition through vandalism and transient occupancy.

Landscaping and Organization

The residential complex is accessed by a gravel driveway leading north from Lone Tree Way. A steel cattle gate attached to repurposed utility poles bars the driveway. Roll fencing and barbed wire attached to T–posts surrounds the residential complex in a square. Overgrown ornamental trees, fruit trees, and bushes surround the residence on all but the north side. Planter boxes and hedges lie west of the residence. The driveway leads into an open parking area between the residence, the workshop, and the garage.

ca. 1920 Residence

This building is a two–story vernacular single–family residence located at 7650 Lone Tree Way. Based on aerial imagery and similarity to the house on the adjacent property at 7590 Lone Tree Way, this house was likely constructed around 1920. This house does not appear to conform to an architectural style, but instead demonstrates choices based primarily on the needs of the residents over time. From the public right–of–way, it is primarily defined by a two–story side–gabled primary façade, facing south. A single–story side–gabled rear unit lies behind the entry, but is mostly not visible from the street.

The compound plan of the house requires some elaboration. The primary entrance, different from the primary façade, is located on the eastern façade of the house. A steel pole carport attaches to a mudroom, which leads east into a kitchen. South of the kitchen lies the two–story unit which forms the primary façade. The lower floor of this unit is a parlor, and the upper is a bedroom and small bathroom. West and northwest of the kitchen lie a bedroom and bathroom. This house appears to have grown in an additive fashion; the two–story unit and kitchen unit appear original, while the bedroom to the northwest and the mudroom appear to be additions. However, continuity in siding materials suggests at least one total remodel. Modern interior elements, including laminate flooring and utilities, suggest a further remodeling events over time.

The house rests on a post-and-pier foundation. A partial basement constructed of cinderblocks underlies the northeastern corner of the house. This space was presumably used for a root cellar, evinced by cabinets and large quantities of broken domestic glassware. Visible framing in this basement is built of circular–cut redwood lumber in 2x6” and 4x6” sizes. Narrow slat flooring lays atop the floor joists. The house is sided in 1x6” horizontal shiplap, recently painted gray. The gable ends feature vertical shiplap siding with dog–eared ends. The butted window casings and simple corner boards have been spray–painted red. Attempts to spray–paint the window muntins has resulted in overspray onto the panes. Most of the windows are wooden single–pane double–hung sash windows. Other likely original window types include six–light awning windows and four light casement windows, which appear on the bedroom and mudroom units. Windows on the upper story of the primary façade have partially been replaced with vinyl four–light casement windows. The windows along the mudroom feature exterior casement screens. A 30” wooden glazed door is the only remaining door on the building, as all others have been removed. A modern metal screen door fronts the mudroom. The low–pitch side–gabled roof of the two–story unit is clad in tarpaper, and features open eaves and exposed rafter tails. The kitchen is topped by a roof extension from the

first floor of the two–story unit. Its roofing is similar, but it features a modern gutter. The northwestern bedroom unit features a side–gabled roof parallel to the two–story unit, and otherwise bears similar features to the two–story unit and kitchen. The mudroom features a composition shingle roof and exposed rafter tails. Its gabled roof attaches underneath the plane of the roof extension on the kitchen. A steel chimney and vent stacks project from the roof. Utilities include gas and electricity, serviced by a PGE Smart Meter, and a satellite dish. This house is in overall fair condition, remaining structurally straight despite resting on an antiquated foundation. However, poorly–executed repairs, decaying materials, demolition by neglect, and occupation by transients has caused noticeable damage to the building. Ornamental trees around the house have encroached on the southwestern and southeastern corners, obscuring most of the building from view in the public right–of–way.

Workshop

The workshop lies 40 feet north of the single–family residence. It appears on aerial imagery dating to 1939; its form and materials suggest it was constructed contemporaneously to the residence. This front–gabled building consists of two stories in its main unit, and a room extension on its western façade. The primary entryway lies on the eastern façade, and features a 30” wooden panel door. The building rests on a post foundation, which has begun to settle on the south. As a result, the building lists slightly. What original siding may have existed has been replaced with irregularly–cut sheets of plywood, affixed with wood screws and sporadically covered in roll composition paper and tarpaper. Windows on the upper level of the northern façade appear to be wooden eight–light fixed windows, roughly aligned over openings in the plywood and held in place with strips of scrap lumber. A rectangular window opening faces south on the upper story. Aluminum sliders line the lower floor of the southern façade. The medium–pitch roof is clad in interlocking sheet metal roofing. Wide open eaves end in exposed rafter tails. The ends of skip sheathing extend to the east two feet beyond the roofing. Handmade work benches line the downstairs interior walls. The upper story is accessed by an indoor wooden ladder. The room extension to the west is only accessible from the outside by a half–glazed door on the southern façade. It is fully sided in roll composition roofing. Its low–pitch flat roof extends from the height of the first floor. Romex electrical wire attached to poles feeds power from the house to the workshop. Overall, this building is in poor condition, suffering from exposure to the elements, vandalism, and demolition by neglect. Whatever visible historical relationship it may have borne to the original construction has been obscured by expedient and poorly–executed repair work.

Garage

A detached garage lies 45 feet northeast of the residence and 20 feet east of the workshop. The front–gabled original portion of the garage likely dates to the construction of the residence, based on style, materials, and functionality. Its doors face south towards the driveway leading inward from Lone Tree Way. This garage clearly features two periods of construction—a parking space in the front, and a workspace addition in the rear.

The garage and addition rest on a post foundation. No listing or settling is immediately apparent. Siding consists of horizontal 1x6” shiplap, with simple corner boards. The primary entrance to the garage is a matched pair of shed doors, allowing entry for a single vehicle. The siding and doors are painted beige, with red trim. A single–pane double–hung window opening lies on each side of the garage space, but both have been boarded up. The original medium–pitch front–gabled roof is mostly clad in roll composition roofing, but peeled sections reveal short Hollywood shakes underneath. The roof ends in short plumb–cut exposed rafter tails and open eaves. The addition to the rear is constructed a variety of repurposed materials, including 1x6” horizontal shiplap,

irregularly–cut plywood, and dimensional lumber. The flat roof extends north from the gable end, and is clad in roll composition roofing. An electrical box attached to a pole on the west side of the addition connects to the house and the shop.

Isolated Finds

Two finds not clearly associated with either residential complex were recorded as isolated finds. Both of these finds are located on the property at 7650 Lone Tree Way. These are:

1. A persimmon tree located 120 feet west–northwest of the residence. This tree stands approximately 12 feet tall, and measures approximately five inches DBH. The tree was identified as a persimmon based on remaining stems hanging from branches. Two branches which had begun to splay apart were wired together with round horse wire, now submerged into the bark. A relatively–recent aluminum tag, numbered 147, hangs from the tree.
2. A concrete irrigation valve in the western margin of the property, about 550 feet west–northwest of the residence. Mechanically, the valve comprises a flange fitted to the end of a vertical concrete pipe, with a cover which is raised and lowered by a large square–headed brass bolt. Technically an orchard valve, the cover reads “THE KT VALVE No 12 ½B / MARTIN IRON WORKS”. The valve sits atop a 16–inch concrete pipe which stands three feet above ground level. This feature is presumably associated with the orchards which formerly stood on most of the property. These orchards appear on aerial photography in this area into the 1960s (CAS 1965).

Historic Resource Evaluation

In order for a property to be considered eligible for listing in the CRHR, it must possess historical significance by fulfilling at least one of four criteria, and retain sufficient integrity, defined by seven aspects (PRC Section 5024.1(c)). This section outlines the evidence for significance and integrity of 7590 and 7650 Lone Tree Way based on these criteria. Because these properties appear to bear intertwined life histories, they are evaluated together rather than separately.

Criteria for Significance

Criterion 1

Criterion 1 identifies significant resources as those “that are associated with events that have made a significant contribution to the broad patterns of our history” (PRC § 5024.1(c)(1)). The Brentwood region was historically populated by fruit orchards, and the properties appear to have borne a relationship to the fruit industry. However, many buildings and features of this time, including orchards, barns, agricultural apparatuses, and access roads, no longer exist, leaving only the residences and associated outbuildings at these properties. Furthermore, alterations to the remaining buildings have detracted from their association with the agricultural past of Lone Tree Valley. Therefore, these properties do not meet Criterion 1.

Criterion 2

Criterion 2 identifies significant resources as those “that are associated with the lives of persons significant in our past” (PRC § 5024.1(c)(2)). Genealogical review and discussions with neighbors during field survey identified the Nicoletti family as the owners of the property during the mid–20th century. Attempts to identify the Nicoletti family’s role in agricultural or other pursuits in local or state history were unsuccessful. The residential complexes at these properties thus do not fulfill Criterion 2.

Criterion 3

Criterion 3 identifies significant resources as those "that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction" (PRC § 5024.1(c)(3)). All extant buildings and structures at both residential complexes do not conform to high architectural styles. The only building to bear stylistic influences is the 1966 residence at 7590 Lone Tree Way, which is still a minimal adaptation of the mid–century Ranch style. The methods and materials used to construct these properties are not the work of a master, but rather of many anonymous bricoleurs attempting to retrofit existing structures to their ever–changing needs. Neither of the complexes, as individual entities nor as a pair, represent distinguishable entities, and thus fall short of Criterion 3.

Criterion 4

Criterion 4 identifies significant resources as those "that have yielded, or may be likely to yield, information important in prehistory or history" (PRC § 5024.1(c)(4)). The methods used in constructing the buildings on these properties are generally conventional. Those which deviate from the norm are not unusual because of architectural or engineering innovation, but because of their vernacular character and apparently expedient response to immediate needs. However, neither this, nor other aspects of these properties, elevate the significance of these properties to meet Criterion 4.

Aspects of Integrity

Location

All buildings and structures appear to have been constructed on–site. Therefore, both properties retain integrity of location.

Design

Most buildings on both properties have experienced modest to complete remodeling, mostly using new and mismatched materials that do not reflect the design sense of the original building. The only building out of the five which has not seen extensive modification to its exterior components is the 1966 residence at 7590 Lone Tree Way, but this building postdates the property's relationship to commercial agriculture. Both properties thus lack integrity of design.

Setting

The historical character of the area in the 20th century was rural and distinctly agricultural. Aerial imagery reveals that the property and many surrounding properties were almost fully planted in orchards (CAS 1958, 1965; FAS 1939). However, rapid suburban development in the surrounding area and removal of most agricultural features from these properties has redefined the area. To visit the property, one would not visually comprehend the extent of orchards that once populated the area, especially the parcels in question. Thus, these properties lack integrity of setting.

Materials

The continued remodeling and alteration of the buildings at both properties has detracted from the historical character of the properties. The 1919 residence at 7590 and the workshop at 7650 in particular have been fundamentally changed to such an extent that only background research revealed their age. The residence and garage at 7650 visibly retain historical materials, but additions, neglect, and expedient repairs have all detracted from their original stylistic sense. Again, the 1966 residence, the newest of the buildings, naturally has experienced the fewest alterations concerning materials. The integrity of materials at both properties is thus low.

Workmanship

The original portions of the residence and garage at 7650 demonstrate some attention to craftsmanship. Most buildings across these properties have been modestly to dramatically altered by the work of bricoleurs over time, sometimes to the point that the buildings no longer appear their age. Much of the later work performed on these buildings demonstrates a series of expedient repairs and additions. Some of these alterations demonstrate care and planning, but most represent a response to immediate concerns, as expressed through mismatched and ill–fitting materials. With the exception of the 1966 residence, all of the buildings feature some level of this work. The pig pen, constructed of a surprisingly broad array of found materials, perhaps most dramatically embodies this practice. This type of building, while necessarily inventive and creative, does not meet the threshold of workmanship which was evident in the original construction. Therefore, the integrity of workmanship on both properties is low.

Feeling

Ill–fitting additions, expedient repairs, abandonment, and demolition by neglect have all detracted from the feeling of historical character conveyed by the buildings. The best cases, the residence and garage at 7650, show application of original materials that speaks to early 20th century vernacular takes on decorative trends, including the trim work on the double doors of the garage and window casings. But most of the character which conveys feeling is absent. The worst cases, the workshop and the 1919 residence, have been so dramatically altered that their original date of construction is nearly inscrutable without background research. The general feeling of the property speaks more strongly to the odd alterations and abandonment rather than the historical character of the original construction. Both properties thus lack integrity of feeling.

Association

The former fruit fields which populated the properties have long since been removed. The agricultural outbuildings, structures, features, and apparatus have been removed. The extent to which buildings have been remodeled on the property generally distance themselves from this context, as well as their former architectural character. No distinctive marks or even shreds of data beyond ownership information clearly associate the property with the Nicoletti family, nor any other former residents. Thus, the property lacks integrity of association.

Uniqueness of Resource

While many agricultural properties have been converted for suburban development in Brentwood and the greater East Bay, this property does not represent a distinctive property in that theme. Nor do the remaining buildings or structures possess unique qualities in design, construction, or materials. Therefore, neither property meets the definition of a “unique archaeological resource” as defined in section 21083.2 of CEQA.

In sum, the properties at 7590 and 7650 Lone Tree Way meet none of the criteria for integrity, and only meet the most basic aspects of integrity. These properties are therefore recommended as *ineligible* for inclusion on the CRHR. The project will not cause a substantial adverse change in the significance of a Tribal cultural resource, defined in Public Resources Code section 21074 as either site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe. The project will not cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5.

Management Recommendations

We make the following recommendations to ensure that cultural resources are not adversely affected by the proposed project. As presently designed, the project is not expected to have an adverse effect on cultural resources.

Unanticipated Discovery of Cultural Resources
If previously unidentified cultural resources are encountered during project implementation, avoid altering the materials and their stratigraphic context. A qualified professional archaeologist should be contacted to evaluate the situation. Project personnel should not collect cultural resources. Prehistoric resources include, but are not limited to, chert or obsidian flakes, projectile points, mortars, pestles, and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or abode foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

Encountering Native American Remains
Although unlikely, if human remains are encountered, all work must stop in the immediate vicinity of the discovered remains and the County Coroner and a qualified archaeologist must be notified immediately so that an evaluation can be performed. If the remains are deemed to be Native American and prehistoric, the Native American Heritage Commission must be contacted by the Coroner so that a “Most Likely Descendant” can be designated and further recommendations regarding treatment of the remains is provided.

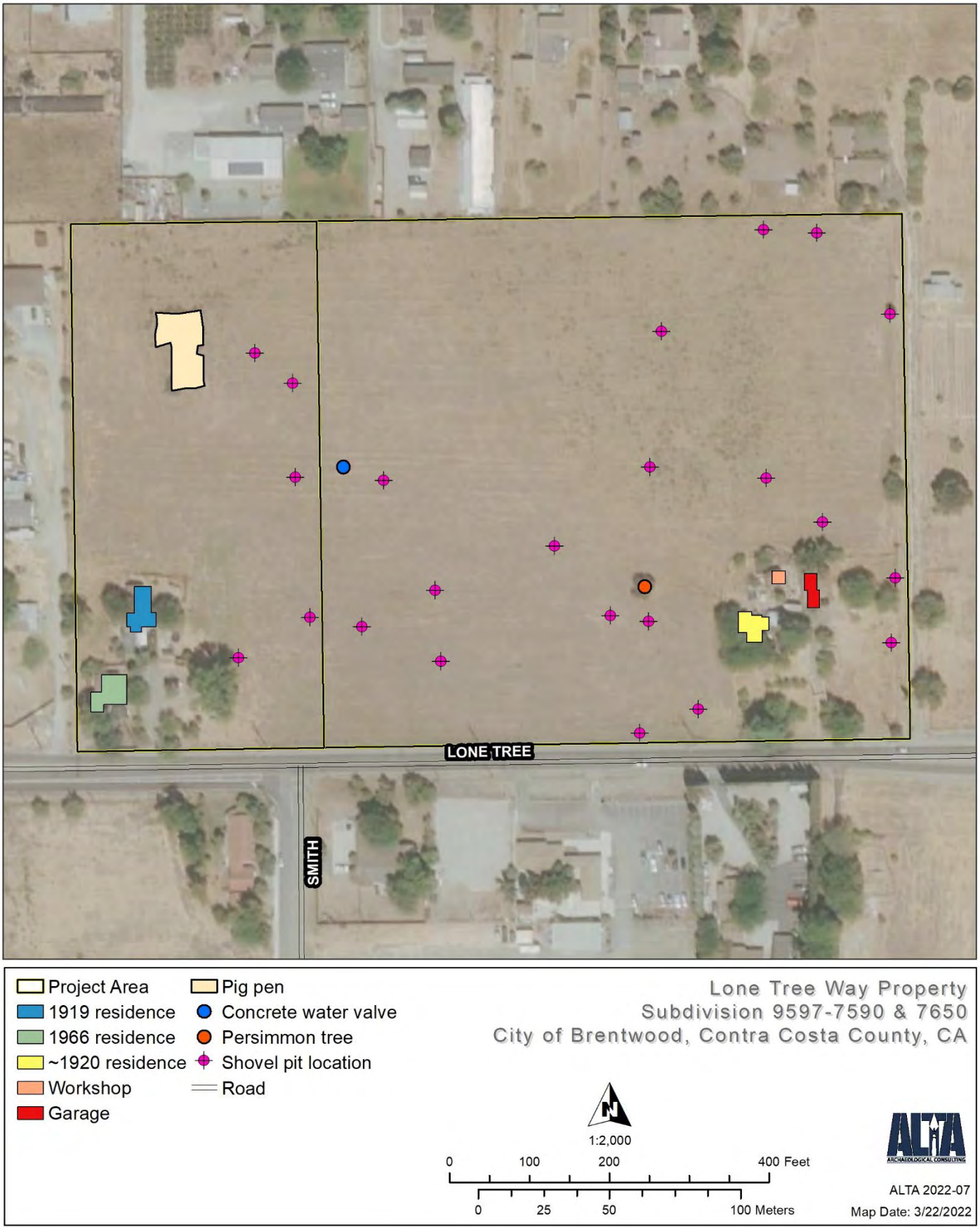


Figure 9. Survey Coverage

IX. REFERENCES CITED

Aginsky, B.W.
1943 Culture Element Distributions, XXIV: Central Sierra. *University of California Anthropological Records* 8(4):393-268.

Baum. Willa Klug
1963 *The Brentwood Plan for Agricultural Labor.* Oral history interview with John A. Miller. Regional Cultural History Project, University of California, Berkeley.

Beardsley, Richard K.
1948 Cultural Sequences in Central California. Two parts. *University of California Archaeological Survey Publication* 24-25.

1954 Temporal and Areal Relationships in Central California. *University of California Archaeological Survey Reports* 24-5.

Beeler, Madison S.
1959 Saclan once more. *International Journal of American Linguistics* 25:67-68.

Bennyhoff, James A.
1977 Ethnogeography of the Plains Miwok. Center for Archaeological Research at Davis Publication Number 5. University of California at Davis.

Bennyhoff, James A. and David A. Fredrickson
1969 A Proposed Integrative Taxonomic System for Central California Archaeology. In *Toward a New Taxonomic Framework for Central California Archaeology*, edited by Richard E. Hughes. Contributions of the University of California Archaeological Research Facility, No. 52, Berkeley.

Bennyhoff, James A., and Richard E. Hughes
1987 Shell Bead and Ornament Exchange Networks between California and the Western Great Basin. *Anthropological Papers of the AMNH* 64(pt. 2).

Brown, Elam C.
1892 *Rancho Los Meganos*. Ownership map. Call no. F-002. Contra Costa County Historical Society. 1:7,920 scale.

Bureau of Land Management (BLM)
1862 Survey plat of T1N R2E. General Land Office Records, Bureau of Land Management, Washington, D.C. 1:31,680 scale.

Carucci, Dominic
2022 *Vesting tentative map for subdivision 9597 – 7590 & 7650 Lone Tree Way Property, City of Brentwood, Contra Costa County, California*. Ruggeri–Jensen–Azar Engineers, Pleasanton, CA.

Cartwright Aerial Surveys (CAS)
1958 Aerial photo frame 10V-186. Flight BUU_1958. University of Santa Barbara Map and Imagery Lab. 1:20,000 scale.
1965 Aerial photo frame 25-64. Flight CAS_65_130. University of Santa Barbara Map and Imagery Lab. 1:12,000 scale.

Chartkoff, Joseph L., and Kerry K. Chartkoff
1984 *The Archaeology of California.* Stanford University Press, Stanford, CA.

Contra Costa County Assessor's Deputies (CCCAD)
1875 *Antioch to Oakley.* Tax Assessor map. Call no. T-006. Contra Costa County Historical Society. 1:31,680 scale.
1882 *Antioch to Oakley.* Tax Assessor map. Call no. T-027. Contra Costa County Historical Society. 1:31,680 scale.
1885 *Antioch to Oakley.* Tax Assessor map. Call no. T-046. Contra Costa County Historical Society. 1:31,680 scale.
1889 *Antioch to Oakley.* Tax Assessor map. Call no. T-066. Contra Costa County Historical Society. 1:31,680 scale.
1892 *Antioch to Oakley.* Tax Assessor map. Call no. T-102. Contra Costa County Historical Society. 1:31,680 scale.

Contra Costa County Assessor's Office (CCCAO)
2021 Parcel report for parcel 018-060-007-4. Contra Costa County Assessor's Office, Martinez, CA.

Contra Costa County Board of Supervisors (CCCBOS)
1871 *Topographical Map of Contra Costa County*. California Historical Society Map Collection. 1:63,360 scale.

Cook, Sherburne F.
1955 The Aboriginal Population of the San Joaquin Valley, California. *University of California Anthropological Records* 16(2):31-80.

East Contra Costa Historical Society (ECCHS)
2021 Brentwood History. Electronic document: https://eastcontracostahistory.org/our-communities/brentwood/, accessed 25 February 2022.

East County Today (ECT)
2017 Saturday: Antioch Water Park Opens. May 27. https://eastcountytoday.net/saturday-antioch-water-park-opens/, accessed 25 February 2022.

Ellison, William H.
1953 *The Life and Adventures in California of Don Augustin Janssens, 1834-1856.* The Huntington Library, San Marino, CA.

Estes, Allen and Jenni Price
2005 Site record P-07-002684. On file at the Northwest Information Center of the California Historic Resources Inventory System, Sonoma State University, Rohnert Park, California.

Fairchild Aerial Surveys (FAS)
1939 Aerial photo frame 268-65. Flight C_5750. University of Santa Barbara Map and Imagery Lab. 1:20,000 scale.

Fredrickson, David A.
1973 *Early Cultures of the North Coast Ranges, California*. Ph.D. dissertation, University of California, Davis.
1974 Cultural Diversity in Early Central California: A View from the North Coast Ranges. *Journal of California Anthropology* 1(1):41-53.

Gerow, Bert A.
1974 The Problem of Culture Sequences in Central California Archaeology. In *Annual Meeting of the American Association for the Advancement of Science, Berkeley. 1974a Comments on Fredrickson's—Cultural diversity.‖ The Journal of California Anthropology* 1(2), pp. 239-246.

Gifford, Edward W.
1955 Central Miwok Ceremonies. *University of California Anthropological Records* 14(4):261-318.

Groza, Randall G.
2002 *An AMS Chronology of Central California Olivella Shell Beads.* Unpublished Master's thesis, Department of Anthropology, San Francisco State University.

Groza, Randall G., Jeffrey Rosenthal, John Southon, and Randall Milliken.
2011 A Refined Shell Bead Chronology for Late Holocene Central California. *Journal of California and Great Basin Anthropology.* 31(2): 13-32.

Hartley, Samie
2009 The Lost History of Davis Camp. *Brentwood Press,* 30 April 2009. Electronic document: https://www.thepress.net/features/history/the-lost-history-of-davis-camp/article_1159da2d-5af7-50c1-93d8-6d0f2f65c447.html, accessed 23 March 2022.
2010 On Sale: A Year's Worth of Memories. *Antioch Press,* October 8:4a. Antioch, CA.

Heizer, Robert F.
1958 Radiocarbon Dates from California of Archaeological Interest. *Reports of the University of California Archaeological Survey* 44:1-16.

Historic Record Company (HRC)
1926 *History of Contra Costa County, California.* Historic Record Company, Los Angeles.

Hubka, Thomas C.
2013 *Houses Without Names: Architectural Nomenclature and the Classification of America's Common Houses.* University of Tennessee Press, Knoxville, TN.

Hulaniski, F. J.
1917 *The History of Contra Costa County, California.* The Elms Publishing Company, Berkeley, CA.

Kroeber, Alfred L.
1925 Handbook of the Indians of California. Bureau of Ethnology Bulletin 78:1-995.

Kukulich, Tony
2019 Davis Camp – A Piece of East County History. *Brentwood Press,* 12 December 2019. Electronic document: https://www.thepress.net/features/davis-camp-a-piece-of-east-county-history/article_b8071178-1d03-11ea-ba75-6f4d1a2aaf0d.html, accessed 23 March 2022.

Levy, Richard
1978 Eastern Miwok. In *Handbook of North American Indians, Bol. 8: California,* edited by Robert F. Heizer, pp. 485-495. Smithsonian Institution, Washington, D.C.

Lewis, Donovan
1993 *Pioneers of California: True Stories of Early Settlers in the Golden State.* Scottwall Associates, San Francisco.

Lightfoot, Kent G., and Edward M. Luby
2002 Late Holocene in the San Francisco Bay Area: Temporal Trends in the Use and Abandonment of Shell Mounds in the East Bay. In *Catalysts to Complexity: Late Holocene Societies of the California Coast*, edited by Jon M. Erlandson and Terry L. Jones, pp. 263-281. Perspectives in California Archaeology, Vol. 6. Cotsen Institute of Archaeology, University of California, Los Angeles.

Lillard, Jeremiah, Robert F. Heizer, and Franklin Fenenga.
1939 *An Introduction to the Archaeology of Central California*, Vol. 2. Board of Education of the Sacramento City Unified School District, Sacramento, CA.

Jennings, C.W., Strand, R.G., Rogers, T.H., Boylan, R.T., Moar, R.R., and Switzer, R.A.
1977 *Geologic Map of California*. California Division of Mines and Geology, Sacramento. 1:750,000 scale.

Little, Elbert
1980 *The Audubon Society Field Guide to North American Trees: Western Region.* Alfred A. Knopf, New York City, New York.

Lyman, George D.
1930 *John Marsh, Pioneer: The Life Story of a Trail-Blazer on Six Frontiers.* Charles Scribner's Sons, New York.

McAlester, Virginia Savage and Lee McAlester
2013 *A Field Guide to American Houses: The Definitive Guide to Identifying and Understanding America's Domestic Architecture.* Alfred A. Knopf, New York.

Merriam, Clinton Hart
1907 Distribution and Classification of the Mewan Stock of California. *American Anthropologist* 9(2):338-357.

Milliken, Randall
1995 *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area 1769-1810*. Ballena Press Anthropological Papers No. 43, Menlo Park, CA.

Milliken, Randall, Laurence H. Shoup, and Beverly R. Ortiz.
2009 *Ohlone/Costanoan Indians of the San Francisco Peninsula and their Neighbors, Yesterday and Today*. Report prepared for National Park Service, Golden Gate National Recreation Area, San Francisco.

Milliken, Randall, Richard T. Fitzgerald, Mark G. Hylkema, Randall Groza, Tom Origer, David G. Bieling, Alan Leventhal, Randall S. Wiberg, Andrew Gottsfield, Donna Gillette, Viviana Bellifemine, Eric Strother, Robert Cartier, and David A. Fredrickson.
2007 Punctuated Culture Change in the San Francisco Bay Area. In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, pp. 99-123. Alta Mira Press, New York.

Moratto, Michael J.
1984 *California Archaeology*. Coyote Press, Salinas, CA.

Munro-Fraser, J. P.
1882 *History of Contra Costa County, California.* W. A. Slocum and Company, San Francisco.

Pubols, Louise
2009 *The Father of All: the de la Guerra Family, Power, and Patriarchy in Mexican California.* University of California Press, Berkeley.

Ragir, Sonia
1972 The Early Horizon in Central California Prehistory. *Contributions of the University of California Archaeological Research Facility* 15(1):1-159.

Rothstein, Morton
1963 A British Firm on the American West Coast, 1860-1914. *The Business History Review* 37(4):392-415.

Schoenherr, Allan A.
1992 *A Natural History of California.* California Natural History Guides Number 56. University of California Press, Berkeley.

Smith, Clarence L. and Wallace W. Elliott
1879 *Illustrations of Contra Costa County, with Historical Sketch.* Smith and Elliott, Oakland, CA.

United States Department of Agriculture (USDA)
2006 Delhi Series. Electronic document: https://soilseries.sc.egov.usda.gov/OSD_Docs/D/DELHI.html, accessed 25 February 2022.
2017 Rincon Series. Electronic document: https://soilseries.sc.egov.usda.gov/OSD_Docs/R/RINCON.html, accessed 25 February 2022.

United States District Court (USDC)
184- *Diseño del Rancho Los Meganos*. Bancroft Library, University of California, Berkeley. No scale.
1853a *Map of the Rancho Los Meganos*. Bancroft Library, University of California, Berkeley. 1: 31,680 scale.
1853b *Map of the Rancho Los Meganos*. Hand-drawn duplicate. Bancroft Library, University of California, Berkeley. 1: 31,680 scale.

United States Geological Survey (USGS)
1914 Brentwood Topographic Map, 1:31,680 scale.
1916 Byron Topographic Map, 1:62,500 scale.
1941 Byron Topographic Map, 1:62,500 scale.
1948 Byron Topographic Map, 1:62,500 scale.
1955 Brentwood Topographic Map, 1:24,000 scale.
1965 Brentwood Topographic Map, 1:24,000 scale.
1970a Brentwood Topographic Map, 1:24,000 scale.
1970b Brentwood Topographic Map, 1:24,000 scale.
1978a Brentwood Topographic Map, 1:24,000 scale.
1978b Brentwood Topographic Map, 1:24,000 scale.
2012 Brentwood Topographic Map, 1:24,000 scale.
2015 Brentwood Topographic Map, 1:24,000 scale.
2018 Brentwood Topographic Map, 1:24,000 scale.
2021 Brentwood Topographic Map, 1:24,000 scale.

Vellanoweth, René L.
2001 AMS radiocarbon dating and shell bead chronologies: Middle Holocene trade and interaction in western North America. *Journal of Archaeological Science* 28(9): 941-950.

Venit-Shelton, Tamara
2013 *A Squatter's Republic: Land and the Politics of Monopoly in California, 1850-1900.* University of California Press, Berkeley.

Weber, C. F.
1913 *Map of Contra Costa & Alameda Counties, Cal.* 1:132,000 scale.

White, Gregory, David A. Fredrickson, Lori D Hager, Jack Meyer, Jeffrey S. Rosenthal, Michael R. Waters, G. James West, and Eric Wohlgemuth
2002 *Cultural Diversity and Cultural Change in Prehistoric Clearlake Basin: Final Report of the Anderson Flat Project*. Center for Archaeological Research Publication no. 13, University of California at Davis.

Attachment A – Records Search Results

7590 & 7650 LONE TREE WAY
BRENTWOOD, CONTRA COSTA COUNTY, CALIFORNIA

Confidential Information

This report contains confidential information. The distribution of material contained in this report is restricted to a need to know basis. To deter vandalism, artifact hunting, and other activities that can damage cultural resources, the location of cultural resources should be kept confidential. The provision protecting the confidentially of archaeological resources is in California Government Code 6245 and 6245.10, and the National Historic Preservation Act of 1996, Section 304.

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA, COLUSA, CONTRA COSTA, DEL NORTE, HUMBOLDT, LAKE, MARIN, MENDOCINO, MONTEREY, NAPA, SAN BENITO, SAN FRANCISCO, SAN MATEO, SANTA CLATA, SANTA CRUZ, SOLANO, SONOMA, YOLO

Northwest Information Center
Sonoma State University
1400 Valley House Drive, Suite 210
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
https://nwic.sonoma.edu

NWIC Billing Worksheet

IC File Number: 21-1214

Client Name: Melanie Radtkey | Phone: (707) 401-4650

Affiliation: Alta Archaeological Consulting | Email: melanie@altaac.com

Proj Name/Number: ALTA 2022_07 Seeno Brentwood Subdivision Contra Costa

Date Request Rec'd: 1/26/2022 | Date of Response: 1/27/2022

Check In: 3:00:00 PM | Check Out: 4:00:00 PM | Check In: | Check Out:

In-person Time:	Hour(s):	1.00	$	100.00
Staff Time:	Hour(s):		$	0.00
Shape Files:	Number:		$	0.00
Custom Map Features:	Number:		$	0.00
Digital Database Record:	Number of Row(s):	10	$	2.50
Quads:	Number:		$	0.00
Address-mapped Flat Fee:			$	0.00
Hard Copy (Xerox/Computer) Pages:	Page(s):		$	0.00
Labor Charge:	Hour(s):	1	$	40.00
PDF Pages:	Page(s):	38	$	5.70
PDF Flat Fee:			$	0.00
Other: CHRIS Data Request			$	0.00
		Subtotal	$	**148.20**

Rapid response surcharge of 50% of total cost: $ 0.00

Total: $ **148.20**

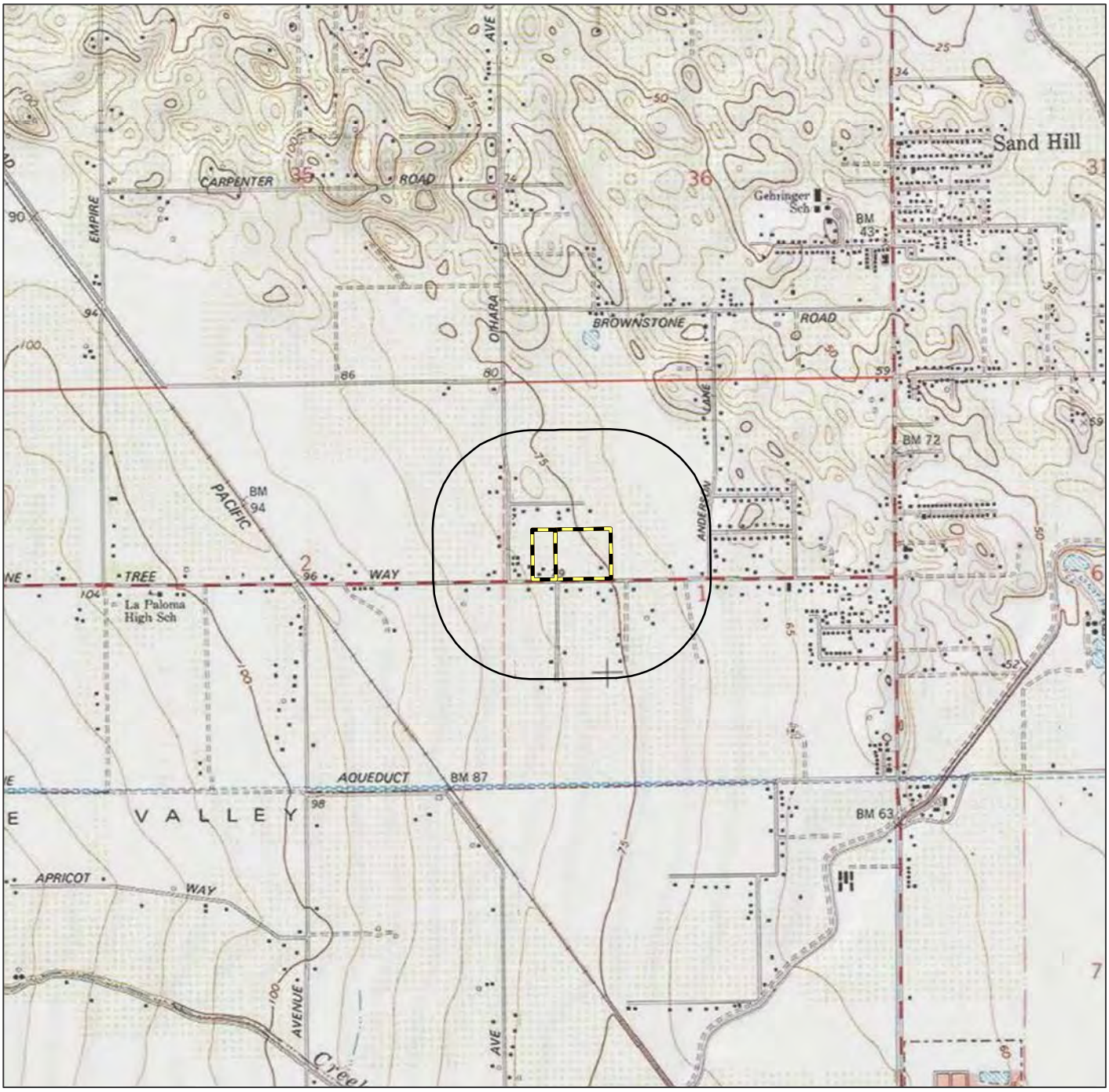
Information Center Staff: Dana Marty

Sonoma State University Customer ID: 0001001960

Sonoma State University Invoice No.:

CHRIS Access and Use Agreement No.:

This is not an invoice. Sonoma State University will send separate invoice.



USGS 7.5' Brentwoodt Quad;T10N, R20E, Section 1; MDBM

USGS Quad Index

		Rio Vista	Isleton
Honker Bay	Antioch North	Jersey Island	Bouldin Island
Clayton	Antioch South	Brentwood	Woodward Island
Diablo	Tassajara	Byron Hot Springs	Clifton Court Forebay

Search Radius

Parcel Boundary

Lone Tree Way Property
Subdivision 9597-7590 & 7650
City of Brentwood, Contra Costa County, CA

1:24,000

0 0.125 0.25 0.5 Miles

0 0.25 0.5 1 Kilometers

ALTA 2022-07

Map Date: 1/25/2022

Attachment B – Native American Outreach

7590 & 7650 LONE TREE WAY
BRENTWOOD, CONTRA COSTA COUNTY, CALIFORNIA

Confidential Information

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Local Government Tribal Consultation List Request

NATIVE AMERIAN HERITAGE COMMISSION

1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 – Fax
nahc@nahc.ca.gov

1/26/2022

Type of List Requested

- ■ **CEQA Tribal Consultation List (AB 52) –** ***Per Public Resource Code §21080.3, subs. (b), (d), (e) and 21080.3.2***

- ☐ **General Plan (SB 18) –** ***Per Government Code §65352.3.***

Local Action Type:

__General Plan __General Plan Element __General Plan Amendment

__Specific Plan __Specific Plan Amendment __Pre-planning Outreach

Required Information

Project Title: ALTA2022_07 Seeno Brentwood Subdivision Contra Costa
Local Government/Lead Agency:
Contact Person: Brianna Boyd
Street Address: 2681 Cleveland Avenue
City: Santa Rosa Zip: 95403
Phone: (707) 544-4206 Fax: (707) 546-2135
Email: brianna@altaac.com

Specific Area Subject to Proposed Action

County: Contra Costa **City/Community:** Brentwood

Project Description: The project proponent proposes a subdivision of two parcels (APNs 018-060-007 and 018-060-006) totaling approximately 16 acres for a residential development at 7650 and 7590 Lone Tree Way.

Additional Request

- ■ ***Sacred Lands File Search – Required Information***

USGS 7.5' Quadrangle(s): Brentwood

Legal Description: Township 1N, Range 2E, Section 01 (map attached) .

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

PARLIAMENTARIAN
Russell Attebery
Karuk

SECRETARY
Sara Dutschke
Miwok

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Buffy McQuillen
Yokayo Pomo, Yuki, Nomlaki

COMMISSIONER
Wayne Nelson
Luiseño

COMMISSIONER
Stanley Rodriguez
Kumeyaay

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

March 17, 2022

Brianna Boyd
Alta Archaeological Consulting LLC

Via Email to: brianna@altaac.com

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, ALTA2022_07 Seeno Brentwood Subdivision Project, Contra Costa County

Dear Ms. Boyd:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

   - Any report that may contain site forms, site significance, and suggested mitigation measures.

     All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was negative.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Cody.Campagne@nahc.ca.gov.

Sincerely,

Cody Campagne

Cody Campagne
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Tribal Consultation List
Contra Costa County
3/17/2022

Amah MutsunTribal Band of Mission San Juan Bautista
Irene Zwierlein, Chairperson
3030 Soda Bay Road — Costanoan
Lakeport, CA, 95453
Phone: (650) 851 - 7489
Fax: (650) 332-1526
amahmutsuntribal@gmail.com

Chicken Ranch Rancheria of Me-Wuk Indians
Lloyd Mathiesen, Chairperson
P.O. Box 1159 — Me-Wuk
Jamestown, CA, 95327
Phone: (209) 984 - 9066
Fax: (209) 984-9269
lmathiesen@crtribal.com

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28 — Costanoan
Hollister, CA, 95024
Phone: (831) 637 - 4238
ams@indiancanyons.org

Indian Canyon Mutsun Band of Costanoan
Kanyon Sayers-Roods, MLD Contact
1615 Pearson Court — Costanoan
San Jose, CA, 95122
Phone: (408) 673 - 0626
kanyon@kanyonkonsulting.com

Muwekma Ohlone Indian Tribe of the SF Bay Area
Monica Arellano, Vice Chairwoman
20885 Redwood Road, Suite 232 — Costanoan
Castro Valley, CA, 94546
Phone: (408) 205 - 9714
marellano@muwekma.org

Muwekma Ohlone Indian Tribe of the SF Bay Area
Charlene Nijmeh, Chairperson
20885 Redwood Road, Suite 232 — Costanoan
Castro Valley, CA, 94546
Phone: (408) 464 - 2892
cnijmeh@muwekma.org

Nashville Enterprise Miwok-Maidu-Nishinam Tribe
Cosme Valdez, Chairperson
P.O. Box 580986 — Miwok
Elk Grove, CA, 95758-0017
Phone: (916) 429 - 8047
Fax: (916) 429-8047
valdezcome@comcast.net

North Valley Yokuts Tribe
Katherine Perez, Chairperson
P.O. Box 717 — Costanoan
Linden, CA, 95236 — Northern Valley
Phone: (209) 887 - 3415 — Yokut
canutes@verizon.net

North Valley Yokuts Tribe
Timothy Perez,
P.O. Box 717 — Costanoan
Linden, CA, 95236 — Northern Valley
Phone: (209) 662 - 2788 — Yokut
huskanam@gmail.com

The Ohlone Indian Tribe
Andrew Galvan,
P.O. Box 3388 — Bay Miwok
Fremont, CA, 94539 — Ohlone
Phone: (510) 882 - 0527 — Patwin
Fax: (510) 687-9393 — Plains Miwok
chochenyo@AOL.com

Tule River Indian Tribe
Neil Peyron, Chairperson
P.O. Box 589 — Yokut
Porterville, CA, 93258
Phone: (559) 781 - 4271
Fax: (559) 781-4610
neil.peyron@tulerivertribe-nsn.gov

Wilton Rancheria
Jesus Tarango, Chairperson
9728 Kent Street — Miwok
Elk Grove, CA, 95624
Phone: (916) 683 - 6000
Fax: (916) 683-6015
jtarango@wiltonrancheria-nsn.gov

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.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed ALTA2022_07 Seeno Brentwood Subdivision Project, Contra Costa County.

Wilton Rancheria
Dahlton Brown, Director of Administration
9728 Kent Street
Elk Grove, CA, 95624
Phone: (916) 683 - 6000
dbrown@wiltonrancheria-nsn.gov

Miwok

Wilton Rancheria
Steven Hutchason, THPO
9728 Kent Street
Elk Grove, CA, 95624
Phone: (916) 683 - 6000
Fax: (916) 863-6015
shutchason@wiltonrancheria-nsn.gov

Miwok

The Confederated Villages of Lisjan
Corrina Gould, Chairperson
10926 Edes Avenue
Oakland, CA, 94603
Phone: (510) 575 - 8408
cvltribe@gmail.com

Bay Miwok
Ohlone
Delta Yokut

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.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed ALTA2022_07 Seeno Brentwood Subdivision Project, Contra Costa County.

Brianna Boyd <brianna@altaac.com>

ALTA Archaeological Consulting Request for Comment; ALTA2022-07 Seeno Brentwood Contra Costa

1 message

Brianna Boyd <Brianna@altaac.com> Wed, Jan 26, 2022 at 1:27 PM
To: amahmutsuntribal@gmail.com

Dear Chairperson Irene Zweirlein,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 7590 & 7650 Lone Tree Way, Contra Costa County, California. The project proponent is proposing construction of a subdivision on two adjacent parcels. The construction will take place in an approximately 16-acre area within parcels on 7590 & 7650 Lone Tree Way (APN 018-0060-007 and 018-060-006).

The project is located on parcels (APN 018-0060-007 and 018-060-006) totaling approximately 16-acres. It is situated on the USGS 7.5' Brentwood Quadrangle in Township 1 North, Range 2 East, Section 1 of the Mount Diablo Base and Meridian. The physical address of the project is 7590 & 7650 Lone Tree Way, Brentwood, California.

The Native American Heritage Commission has provided your name and contact information for similar projects in the area. We are contacting you to inform you of the proposed project and to inquire if you are aware of any cultural resources that may be present in the area and to solicit your input or concerns. Please contact me at the address listed below.

Sincerely,

--
Brianna Boyd | Staff Archaeologist
Alta Archaeological Consulting LLC
2681 Cleveland Ave
Santa Rosa, CA 95403
Brianna@AltaAC.com
office: 707.544.4206 | cell: 650.630.5315

Map 2 (ALTA2022-07) Project Location.pdf
1200K

Brianna Boyd <brianna@altaac.com>

ALTA Archaeological Consulting Request for Comment; ALTA2022-07 Seeno Brentwood Contra Costa

1 message

Brianna Boyd <Brianna@altaac.com> Wed, Jan 26, 2022 at 1:30 PM
To: ams@indiancanyon.org

Dear Chairperson Ann Sayers,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 7590 & 7650 Lone Tree Way, Contra Costa County, California. The project proponent is proposing construction of a subdivision on two adjacent parcels. The construction will take place in an approximately 16-acre area within parcels on 7590 & 7650 Lone Tree Way (APN 018-0060-007 and 018-060-006).

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The Native American Heritage Commission has provided your name and contact information for similar projects in the area. We are contacting you to inform you of the proposed project and to inquire if you are aware of any cultural resources that may be present in the area and to solicit your input or concerns. Please contact me at the address listed below.

Sincerely,

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Brianna Boyd | Staff Archaeologist
Alta Archaeological Consulting LLC
2681 Cleveland Ave
Santa Rosa, CA 95403
Brianna@AltaAC.com
office: 707.544.4206 | cell: 650.630.5315

Map 2 (ALTA2022-07) Project Location.pdf
1200K

Brianna Boyd <brianna@altaac.com>

ALTA Archaeological Consulting Request for Comment; ALTA2022-07 Seeno Brentwood Contra Costa

1 message

Brianna Boyd <Brianna@altaac.com> Wed, Jan 26, 2022 at 1:36 PM
To: cvltribe@gmail.com

Dear Chairperson Corrina Gould,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 7590 & 7650 Lone Tree Way, Contra Costa County, California. The project proponent is proposing construction of a subdivision on two adjacent parcels. The construction will take place in an approximately 16-acre area within parcels on 7590 & 7650 Lone Tree Way (APN 018-0060-007 and 018-060-006).

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The Native American Heritage Commission has provided your name and contact information for similar projects in the area. We are contacting you to inform you of the proposed project and to inquire if you are aware of any cultural resources that may be present in the area and to solicit your input or concerns. Please contact me at the address listed below.

Sincerely,

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Brianna Boyd | Staff Archaeologist
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2681 Cleveland Ave
Santa Rosa, CA 95403
Brianna@AltaAC.com
office: 707.544.4206 | cell: 650.630.5315

Map 2 (ALTA2022-07) Project Location.pdf
1200K

Brianna Boyd <brianna@altaac.com>

ALTA Archaeological Consulting Request for Comment; ALTA2022-07 Seeno Brentwood Contra Costa

1 message

Brianna Boyd <Brianna@altaac.com> Wed, Jan 26, 2022 at 1:31 PM
To: marellano@muwekma.org

Dear Chairwoman Monica Arellano,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 7590 & 7650 Lone Tree Way, Contra Costa County, California. The project proponent is proposing construction of a subdivision on two adjacent parcels. The construction will take place in an approximately 16-acre area within parcels on 7590 & 7650 Lone Tree Way (APN 018-0060-007 and 018-060-006).

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The Native American Heritage Commission has provided your name and contact information for similar projects in the area. We are contacting you to inform you of the proposed project and to inquire if you are aware of any cultural resources that may be present in the area and to solicit your input or concerns. Please contact me at the address listed below.

Sincerely,

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Brianna Boyd | Staff Archaeologist
Alta Archaeological Consulting LLC
2681 Cleveland Ave
Santa Rosa, CA 95403
Brianna@AltaAC.com
office: 707.544.4206 | cell: 650.630.5315

Map 2 (ALTA2022-07) Project Location.pdf
1200K

Brianna Boyd <brianna@altaac.com>

ALTA Archaeological Consulting Request for Comment; ALTA2022-07 Seeno Brentwood Contra Costa

1 message

Brianna Boyd <Brianna@altaac.com> Wed, Jan 26, 2022 at 1:32 PM
To: canutes@verizon.net

Dear Chairperson Katherine Perez,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 7590 & 7650 Lone Tree Way, Contra Costa County, California. The project proponent is proposing construction of a subdivision on two adjacent parcels. The construction will take place in an approximately 16-acre area within parcels on 7590 & 7650 Lone Tree Way (APN 018-0060-007 and 018-060-006).

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The Native American Heritage Commission has provided your name and contact information for similar projects in the area. We are contacting you to inform you of the proposed project and to inquire if you are aware of any cultural resources that may be present in the area and to solicit your input or concerns. Please contact me at the address listed below.

Sincerely,

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Brianna Boyd | Staff Archaeologist
Alta Archaeological Consulting LLC
2681 Cleveland Ave
Santa Rosa, CA 95403
Brianna@AltaAC.com
office: 707.544.4206 | cell: 650.630.5315

Map 2 (ALTA2022-07) Project Location.pdf
1200K

Brianna Boyd <brianna@altaac.com>

ALTA Archaeological Consulting Request for Comment; ALTA2022-07 Seeno Brentwood Contra Costa

1 message

Brianna Boyd <Brianna@altaac.com> Wed, Jan 26, 2022 at 1:34 PM
To: chochenyo@aol.com

Dear Andrew Galvan,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 7590 & 7650 Lone Tree Way, Contra Costa County, California. The project proponent is proposing construction of a subdivision on two adjacent parcels. The construction will take place in an approximately 16-acre area within parcels on 7590 & 7650 Lone Tree Way (APN 018-0060-007 and 018-060-006).

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The Native American Heritage Commission has provided your name and contact information for similar projects in the area. We are contacting you to inform you of the proposed project and to inquire if you are aware of any cultural resources that may be present in the area and to solicit your input or concerns. Please contact me at the address listed below.

Sincerely,

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Brianna Boyd | Staff Archaeologist
Alta Archaeological Consulting LLC
2681 Cleveland Ave
Santa Rosa, CA 95403
Brianna@AltaAC.com
office: 707.544.4206 | cell: 650.630.5315

Map 2 (ALTA2022-07) Project Location.pdf
1200K

Brianna Boyd <brianna@altaac.com>

ALTA Archaeological Consulting Request for Comment; ALTA2022-07 Seeno Brentwood Contra Costa

1 message

Brianna Boyd <Brianna@altaac.com> Wed, Jan 26, 2022 at 1:35 PM
To: jtarango@wiltonrancheria-nsn.gov

Dear Chairperson Jesus Tarango,

Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 7590 & 7650 Lone Tree Way, Contra Costa County, California. The project proponent is proposing construction of a subdivision on two adjacent parcels. The construction will take place in an approximately 16-acre area within parcels on 7590 & 7650 Lone Tree Way (APN 018-0060-007 and 018-060-006).

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The Native American Heritage Commission has provided your name and contact information for similar projects in the area. We are contacting you to inform you of the proposed project and to inquire if you are aware of any cultural resources that may be present in the area and to solicit your input or concerns. Please contact me at the address listed below.

Sincerely,

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Brianna Boyd | Staff Archaeologist
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2681 Cleveland Ave
Santa Rosa, CA 95403
Brianna@AltaAC.com
office: 707.544.4206 | cell: 650.630.5315

Map 2 (ALTA2022-07) Project Location.pdf
1200K

Attachment C – Historical Organization Outreach

7590 & 7650 LONE TREE WAY
BRENTWOOD, CONTRA COSTA COUNTY, CALIFORNIA

Confidential Information

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Nicholas Radtkey <nick@altaac.com>

7590 and 7650 Lone Tree Way, Brentwood

1 message

Nicholas Radtkey <Nick@altaac.com> Sat, Feb 26, 2022 at 3:03 PM
To: info@cocohistory.com

Good afternoon,

I hope this message finds you well. I am an archaeologist and architectural historian contracted to survey the properties at 7590 and 7650 Lone Tree Way in Brentwood for a development project. From a review of aerial photography and maps, I understand that there are two historic-era homes on the properties. I am writing to ask if your historical society has any information about these buildings, so that I can fairly and accurately represent their history in my report. In addition to email, you are welcome to call me at (707) 291-4645. Thank you for your time, and I look forward to your response!

My best,
Nicholas Radtkey
Archaeologist
==========

Alta Archaeological Consulting LLC
2681 Cleveland Avenue
Santa Rosa, CA 95403
o: 707.544.4206 | f: 707.546.2135 | c: 707.291-4645
Nick@AltaAC.com
www.ProfessionalArchaeologist.com | www.CremainsRecovery.com
i | t | fb

DBE | WOSB | WBE | SB | GSA

Nicholas Radtkey <nick@altaac.com>

7590 and 7650 Lone Tree Way

1 message

Nicholas Radtkey <Nick@altaac.com> Sat, Feb 26, 2022 at 2:57 PM
To: ecchs@eastcontracostahistory.org

Good afternoon,

I hope this message finds you well. I am an archaeologist and architectural historian contracted to survey the properties at 7590 and 7650 Lone Tree Way in Brentwood for a development project. From a review of aerial photography and maps, I understand that there are two historic-era homes on the properties. I am writing to ask if your historical society has any information about these buildings, so that I can fairly and accurately represent their history in my report. In addition to email, you are welcome to call me at (707) 291-4645. Thank you for your time, and I look forward to your response!

My best,
Nicholas Radtkey
Archaeologist
==========

Alta Archaeological Consulting LLC
2681 Cleveland Avenue
Santa Rosa, CA 95403
o: 707.544.4206 | f: 707.546.2135 | c: 707.291-4645
Nick@AltaAC.com
www.ProfessionalArchaeologist.com | www.CremainsRecovery.com
i | t | fb

DBE | WOSB | WBE | SB | GSA

Attachment D – Photo Sheet

7590 & 7650 LONE TREE WAY
BRENTWOOD, CONTRA COSTA COUNTY, CALIFORNIA

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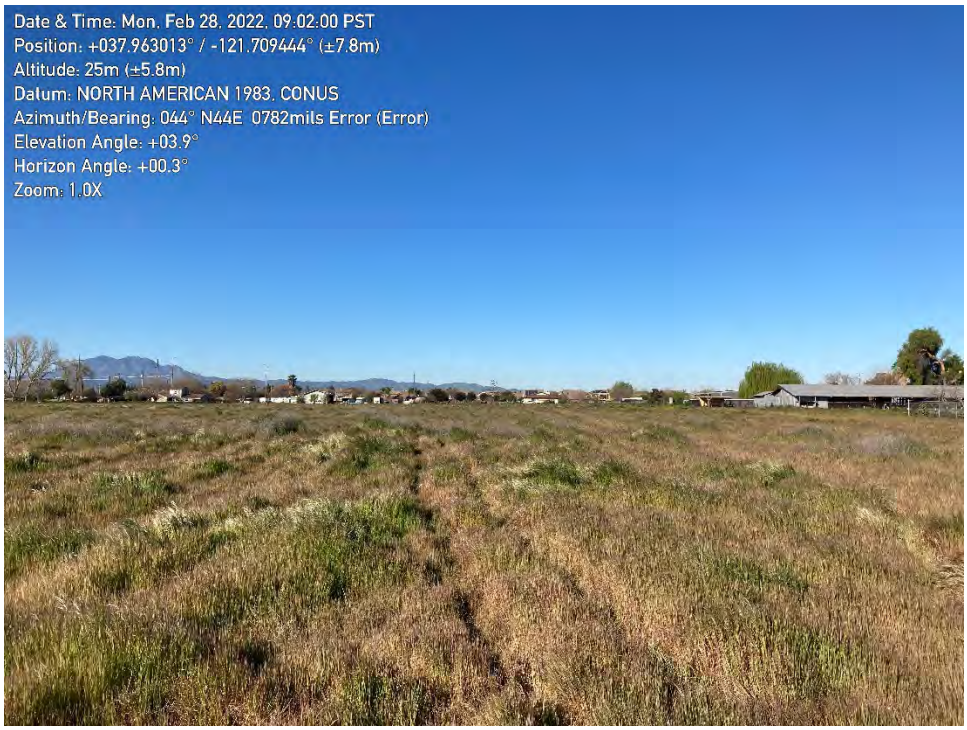


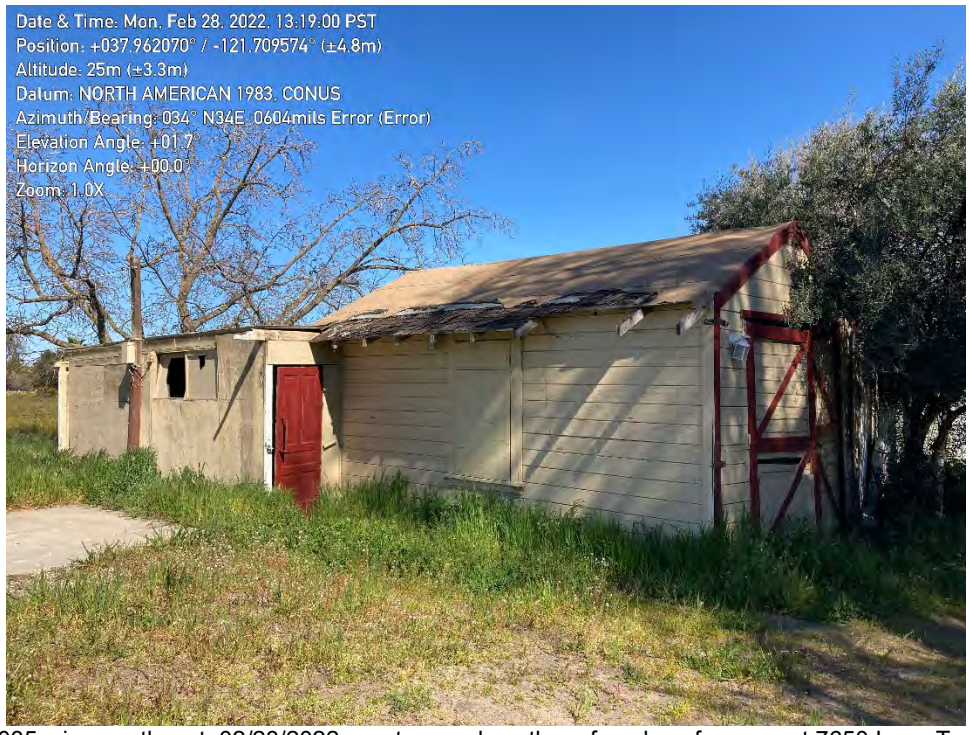
TH000901, view west, 02/28/2022, overview of Project Area.

TH000912, plan view, 02/28/2022, shovel pit 12, exhibiting sandy soils throughout Project Area.

TH000991, view north, 02/28/2022, primary façade of ca. 1920 residence at 7650 Lone Tree Way.

TH000998, view north, 02/28/2022, eastern and northern façades of ca. 1920 residence at 7650 Lone Tree Way.

TH001030, view northwest, 02/28/2022, southern and eastern façades of workshop at 7650 Lone Tree Way.



TH001035, view northeast, 02/28/2022, western and southern façades of garage at 7650 Lone Tree Way.

TH000906, view north, 02/28/2022, isolated persimmon tree at 7650 Lone Tree Way.

TH000916, view northeast, 02/28/2022, isolated irrigation valve 7650 Lone Tree Way.

TH000972, view northwest, 02/28/2022, view from street of residences at 7590 Lone Tree Way.

TH000973, view north, 02/28/2022, southern façade of 1966 residence at 7590 Lone Tree Way.

TH001035, view northwest, 02/28/2022, southern and eastern façades of 1919 residence at 7590 Lone Tree Way.

TH001035, view northeast, 02/28/2022, northern and western façades of 1919 residence at 7590 Lone Tree Way.

TH000928, view east, 02/28/2022, western fencing of pig pen.

TH000936, view west, 02/28/2022, detail of pig pen.

Attachment E – Site Record

7590 & 7650 LONE TREE WAY
BRENTWOOD, CONTRA COSTA COUNTY, CALIFORNIA

Confidential Information

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State of California – The Resources Agency DEPARTMENT OF PARKS AND RECREATION **PRIMARY RECORD**	Primary #: HRI #: Trinomial: NRHP Status Code:	
Other Listings: Review Code:	Reviewer:	Date:

Page 1 **of** ***Resource Name or #:** 7590 and 7650 Lone Tree Way

P1. Other Identifier: None

***P2. Location:** ■ **Not for Publication** ☐ **Unrestricted**

***a. County:** Contra Costa

***b. USGS 7.5' Quad**: Brentwood **Date:** 1978 **T** 1N; **R** 2E; SW **of** NW **of Sec.** 1; Mount Diablo **B.M.**

c. Address: 7590/7650 Lone Tree Way City: Brentwood ZIP: 94513

d. UTM: Zone 10, 613103 mE/ 4202383 mN (front porch of 1919 residence)

e. Other Locational Data: APN 018-060-007. From the freeway exit for Lone Tree Way on Highway 4, proceed east on Lone Tree Way 1.6 miles. The properties are second and third on the left after crossing the intersection at O'Hara Avenue, respectively.

***P3a. Description:**

The properties at 7590 and 7650 Lone Tree Way are former single–family residences and associated ancillary structures. Original buildings appear to date to around 1919, with later construction events evident around 1966 and in modern times (CCCAO 2021). Historical aerial imagery reveals the presence of fruit orchards on the properties, but this use has since lapsed. Orchards, barns, and infrastructure have mostly been removed, leaving only residences (CAS 1965). The properties have both suffered from demolition by neglect, failure of expedient and ill–fitting repairs, and occupation by transients. The two properties appear to bear a relationship to one another, both in terms of historical land use and architectural qualities. As such, they are recorded together rather than as separate resources. (See Continuation Sheet, page 5)

***P3b. Resource Attributes:** HP2. Single family property; HP33. Farm/ranch.

***P4. Resources Present:** ■ Building ■ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other:

P5a. Photograph

P5b. Description of Photo: Overview of property from Lone Tree Way, view north, TH000972, 02/28/2022.

***P6. Date Constructed/Age and Source:**
■ Historic 1919, 1966 ☐ Prehistoric ☐ Both

***P7. Owner and Address:**
Seecon Financial and Construction Company
4021 Port Chicago Highway
Concord, CA 94520

***P8. Recorded by:**
Nicholas Radtkey, BA
Alta Archaeological Consulting, LLC
2681 Cleveland Avenue
Santa Rosa, CA 95403

***P9. Date Recorded:** 02/28/2022

***P10. Survey Type:** Intensive, 20m intervals, for determination of historic significance

***P11. Report Citation:**

DeGeorgey, Alex, and Nicholas Radtkey
2022 *Archaeological Survey Report and Historic Architecture Resource Evaluation for 7590 and 7650 Lone Tree Way.* Manuscript on file at the Northwest Information Center of the California Historical Resources Information System, Rohnert Park, CA.

***Attachments:** ☐ NONE ■ Location Map ■ Sketch Map ■ Continuation Sheet ■ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

B1. Historic Name: None
B2. Common Name: None
B3. Original Use: Single family residence; fruit orchard B4. Present Use: Vacant

***B5. Architectural Style:** Most buildings on the property are vernacular in design, representing functional decisions rather than stylistic embellishment. The 1966 residence is a garage–in–front box Ranch (Hubka 2013:59).

***B6. Construction History:** Aerial imagery from 1939 depicts all of the buildings at 7650 and the 1919 residence at 7590 Lone Tree Way (FAS 1939). Most alteration work on these properties likely postdates 1970, based on materials. Expedient alterations such as mismatched replacement windows and siding were clearly completed by bricoleurs rather than skilled carpenters. The application of stucco and replacement of windows and doors to the 1919 residence likely corresponds with the construction of the 1966 residence, as materials appear to match. The 1966 residence has only seen the replacement of doors. A former barn on the 7590 property was torn down in 2014, based on Google Earth imagery.

***B7. Moved?** ■ No ☐ Yes ☐ Unknown **Date:** NA **Original Location:** NA
***B8. Related Features:** None.

B9a. Architect: Unknown b. Builder: Unknown
***B10. Significance: Theme:** Agriculture **Area:** Eastern Contra Costa County
Period of Significance: 1919-1945 **Property Type:** Fruit orchard complex **Applicable Criteria:** None.

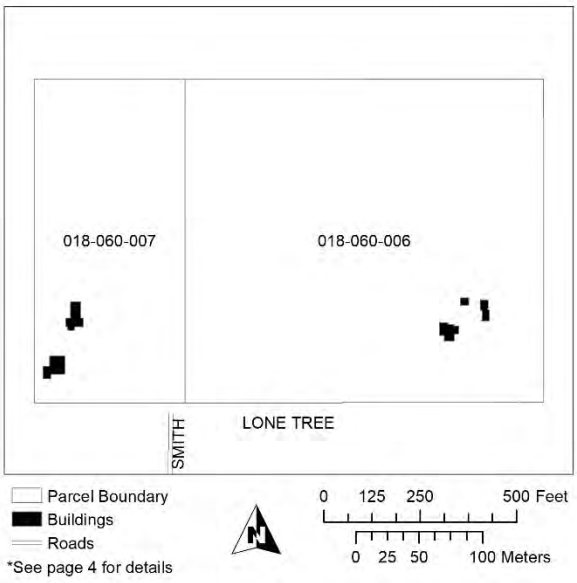
Historic Context
With the end of the Mexican-American War in 1848 and the subsequent discovery of gold at Sutter's Mill, a wave of Americans rushed to California. Many Americans squatted on rancho lands such as John Marsh's Rancho Los Méganos, while others claimed lands outside of rancho boundaries by preemption (Venit-Shelton 2013:33). Though the Land Commission validated most of Marsh's claim to Rancho Los Méganos in 1857, the property was soon subdivided and sold to Americans (Munro-Fraser 1882:304-306). The heirs of John Marsh continued his legacy of encouraging American settlement by donating land to start the town of Brentwood along the course of the railroad. Brentwood was so named to honor the Marsh family's origins in Brentwood, Essex, England (Munro-Fraser 1882:496). The first business, a store owned by one Louis Gruneaeur, was built in the fall of 1878; the population in 1882 stood around 100 (Munro-Fraser 1882:497). The addition of schools, hotels, and businesses through the 1890s through 1910s quickly changed the nature of Brentwood from a pastoral railroad hub to an agricultural and commercial center of the East Bay. (See Continuation Sheet, page 8)

B11. Additional Resource Attributes: HP2. Single family property; HP33. Farm/ranch.

***B12. References:** See Continuation Sheet, page 11.

***B14. Evaluator:** Nicholas Radtkey, BA

***Date of Evaluation:** 02/28/2022

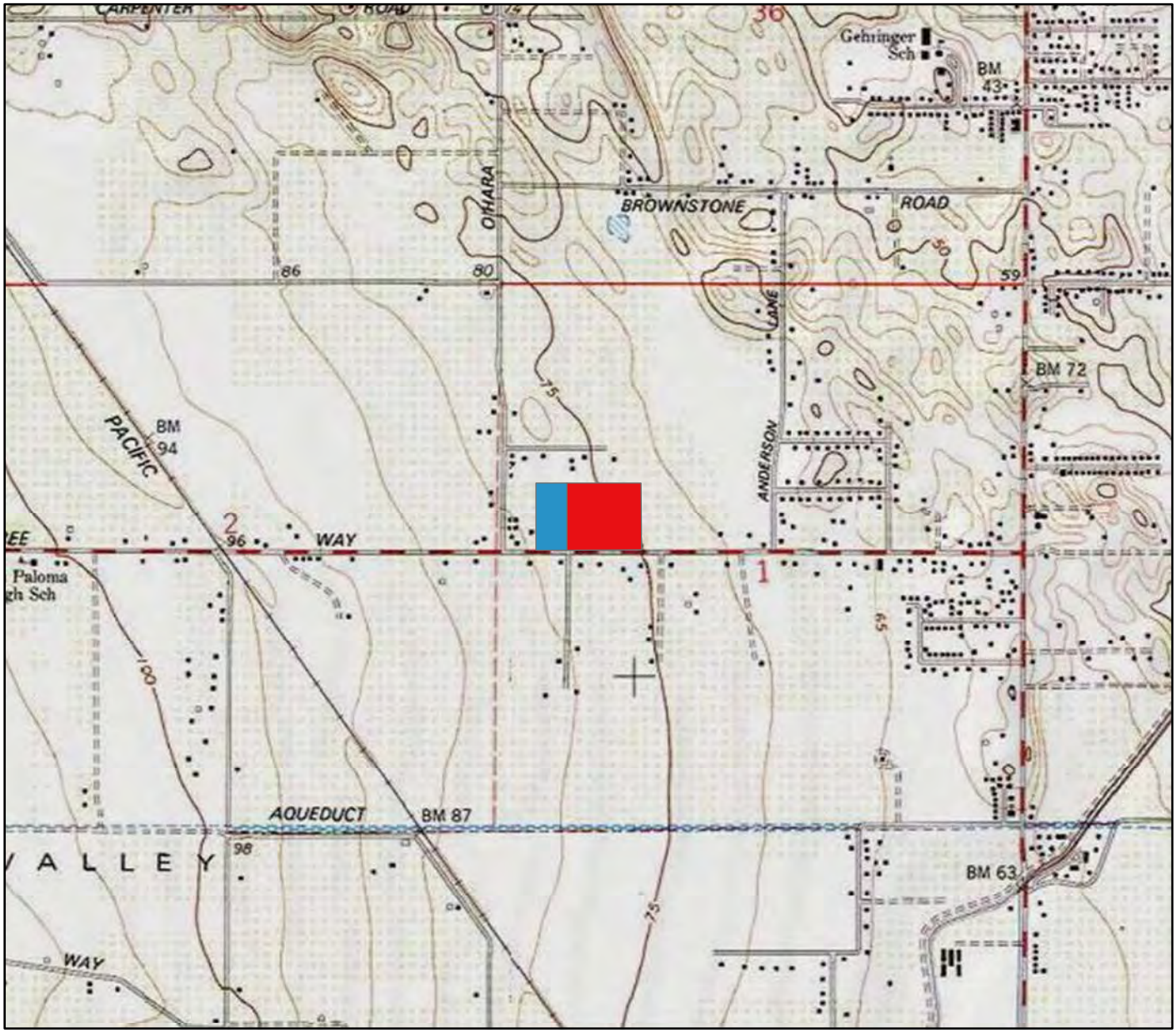


(This space reserved for official comments.)

LOCATION MAP

Primary #
HRI #
Trinomial

*Resource Name or #: 7590 and 7650 Lone Tree Way

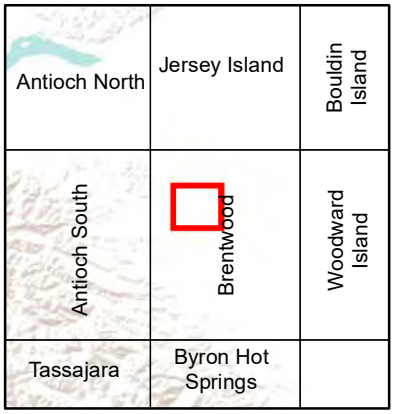


USGS 7.5' Brentwood Quad;T2N, R2E, Section 1; MDBM

7590 Lone Tree Way

7650 Lone Tree Way

USGS Quad Index



1:24,000

Miles: 0 0.25 0.5 1

Kilometers: 0 0.25 0.5 1

Map Date: 3/23/2022

*Required Information

SKETCH MAP

Primary #
HRI #
Trinomial

Resource Name or #: 7590 and 7650 Lone Tree Way

Parcel Boundary
Pig pen
1919 residence
1966 residence
Garage
Workshop
~1920 residence
Roads

N

1:2,000

0 100 200 400 Feet

0 25 50 100 Meters

Map Date: 3/23/2022

*Required Information

P3a. Description (continued from p. 1)

7590 Lone Tree Way
The property at 7590 Lone Tree Way is comprised of two houses on the southern portion of the property and a large pig pen to the north. The oldest house, located at the northern end of the driveway from Lone Tree Way, dates to approximately 1939 (FAS 1939). The newer house, located west of the driveway's entrance to the parcel, postdates 1965 (CAS 1965). According to the neighbor to the west, this property and the adjacent property at 7650 Lone Tree Way belonged to the Nicoletti family from the 1940s to about 2012. The Nicoletti family lived in the 1919 house, and leased the 1916 house. This property remains in fair condition, as the buildings retain most of their structural integrity and functional properties. However, 10 years of abandonment, decaying materials, failure of expedient repairs, vandalism, and occupation by transients has taken a toll on the physical condition of the property.

Landscaping and Organization
A gravel driveway leads north from Lone Tree Way into the property. This leads into an open parking area surrounded by ornamental trees and olive trees. A concrete apron north of the parking area leads to the 1919 residence. A chain–link fence to the west leads into the 1966 residence. Aerial imagery dating to between 1939 and 1965 indicate the presence of a barn east of this parking area, but Google Earth aerial imagery reveals that this building was demolished in 2014. This area is now bare. A separate short driveway leads north from Lone Tree Way to the roll–up door of the garage attached to the 1966 residence.

1919 Residence
This house is a rear-facing T–plan two–story single–family residence. Property assessment records date the construction of this house to 1919 (CCCAO 2021). This house does not appear to conform to a formal architectural style. The house is visually defined by a side–gabled primary façade facing south, with a small extended front porch overhang. The front unit of the house comprises a kitchen and front room, with a centrally–placed front door on the primary façade. The rear of the house extends two units back. A single room sits atop this rear of the house, and forms a primary visual component from the right–of–way.

This building appears to rest on a post–and–pier foundation; however, a concrete apron patio abutting two sides of the house and stucco siding extending into the dirt obscures visibility of most of the foundation. The stucco siding of the building is painted beige. Simple butted wooden window casings frame the remaining single–pane double–hung wooden sash windows. However, windows on the eastern and southern façades have been replaced with a combination of aluminum sliders and vinyl double–hung windows over time. The eastern end of the front unit exhibits a large square outline of stucco application covering the extent of a much larger window, and now holds an aluminum slider. This, in tandem with the uneven condition of the window casings around the house, suggests that the stucco siding was applied over a previous type. All doors are replacements. The lower story features metal panel doors, while the upper story features a hollow core particle board door. Modern composition shingles and roll composition roofing top the low–pitch roof of the front and rear units, as well as the upper story. A steel chimney for a wood stove and vent stacks appear on the roofing. Fascia boards appear to have fallen off on the rear units, leaving exposed rafter tails on the short eaves. The upper room is accessible by an exterior staircase constructed of modern dimensional lumber. Despite its unconventional configuration, it appears nearly original to the building, based on aerial imagery (FAS 1939). Utilities include electricity and gas, serviced by a PGE Smart Meter, water, and a Dish Network satellite dish. Most landscaping around this house lies in a yard to the northeast. Overgrown ornamental bushes and a single ornamental shade tree stand inside a fence made of both roll fencing and chain–link. The overall condition of this house is fair. It appears to have retained structural integrity in most aspects. However, a combination of deferred maintenance, abandonment, and recent occupation by transients has caused damage, including peeling paint, dry rot, loss of trims, broken windows, and vandalism.

1966 Residence
This house is a garage–in–front box Ranch dating to between 1965 and 1966 (CAS 1965; Hubka 2013:59; CCCAO 2021). The form of the house is a simple box–plan, with an attached one–car garage to the southwest. It appears original in configuration, with alterations primarily addressing utilities and openings. This house is situated in the southwestern corner of the lot, and faces Lone Tree Way.

The house appears to rest on a perimeter foundation. Like the older house, it is fully clad in beige stucco; however, this siding appears original. All windows are aluminum sliders, and appear original. The primary façade, facing south, exhibits two modern metal doors—a panel door on the house, and a similar roll–up door on the garage, both painted white. A short concrete sidewalk connects the front door to the driveway to the east, as well as a concrete patio area on the eastern façade. An aluminum glass

sliding door on this eastern façade allows entry into the living room from the patio. The garage and the house each feature separate hipped roofs, but connect to allow indoor entry from the garage. The roof is clad in modern composition shingles, and ends in plumb fascia on open eaves. A steel chimney for a wood stove and vent stacks project from the hipped roof of the house. Utilities include electricity and gas, serviced by a PGE Smart Meter; water; and a Dish Network satellite dish. A yard fenced with 1x8" vertical board fence and chain–link fence wraps around the house. Ornamental flowers and trees stand in the front yard, providing privacy from traffic on Lone Tree Way. Overall, this house is in good condition, retaining much of its structural soundness. The occupation of transients and decay from neglect have not severely affected this house.

Pig Pen

A pig pen lies approximately 250 feet north of the 1919 residence, in an open field. This structure is configured in an L, and measures approximately 95 feet north to south by 60 feet east to west. The eastern half of the pen features a north-to-south aisle between two rows of berths of pigs. About 12 berths were discernable beneath collapsed structural materials. The southern bays feature concrete slabs and troughs. The southwesternmost bay is overgrown by a fig tree. The western half of the pen is a cleared enclosure. The structure is constructed of a wide variety of found materials, including, but not limited to, corrugated sheet metal; baling wire; roll fencing; plywood sheets; rebar; tree branches; concrete; lumber in 2x4, 4x4, 1x6, and 1x12 dimensions; wire nails; and wood screws. The neighbor to the west says that this pig pen was for the family's own use rather than for commercial production. This pig pen is in poor condition, suffering from abandonment and overgrowth of vegetation. It has collapsed in many sections.

7650 Lone Tree Way

This residential complex lies at the southeastern corner of 7650 Lone Tree Way. Aerial imagery shows that the original configuration of this residential complex was complete by 1939, but additions and repairs over time date to as recently as within 10 years (FAS 1939). Based on similarities in construction methods and design to the adjacent property at 7590 Lone Tree Way, the buildings at this property likely date to around 1920. The property comprises three buildings arranged around a driveway. These buildings include a single-family residence, a workshop, and a detached garage. According to neighbors to the west, the Nicoletti family at 7590 Lone Tree Way owned this property, and leased it to renters. This residential complex is in generally poor condition, having suffered passive decay from around 10 years of abandonment and failure of poorly–executed repairs as well as active demolition through vandalism and transient occupancy.

Landscaping and Organization

The residential complex is accessed by a gravel driveway leading north from Lone Tree Way. A steel cattle gate attached to repurposed utility poles bars the driveway. Roll fencing and barbed wire attached to T–posts surrounds the residential complex in a square. Overgrown ornamental trees, fruit trees, and bushes surround the residence on all but the north side. Planter boxes and hedges lie west of the residence. The driveway leads into an open parking area between the residence, the workshop, and the garage.

ca. 1920 Residence

This building is a two–story vernacular single–family residence located at 7650 Lone Tree Way. Based on aerial imagery and similarity to the house on the adjacent property at 7590 Lone Tree Way, this house was likely constructed around 1920. This house does not appear to conform to an architectural style, but instead demonstrates choices based primarily on the needs of the residents over time. From the public right–of–way, it is primarily defined by a two–story side–gabled primary façade, facing south. A single–story side–gabled rear unit lies behind the entry, but is mostly not visible from the street.

The compound plan of the house requires some elaboration. The primary entrance, different from the primary façade, is located on the eastern façade of the house. A steel pole carport attaches to a mudroom, which leads east into a kitchen. South of the kitchen lies the two–story unit which forms the primary façade. The lower floor of this unit is a parlor, and the upper is a bedroom and small bathroom. West and northwest of the kitchen lie a bedroom and bathroom. This house appears to have grown in an additive fashion; the two–story unit and kitchen unit appear original, while the bedroom to the northwest and the mudroom appear to be additions. However, continuity in siding materials suggests at least one total remodel. Modern interior elements, including laminate flooring and utilities, suggest a further remodeling events over time.

The house rests on a post-and-pier foundation. A partial basement constructed of cinderblocks underlies the northeastern corner of the house. This space was presumably used for a root cellar, evinced by cabinets and large quantities of broken domestic glassware. Visible framing in this basement is built of circular–cut redwood lumber in 2x6" and 4x6" sizes. Narrow slat flooring lays

atop the floor joists. The house is sided in 1x6" horizontal shiplap, recently painted gray. The gable ends feature vertical shiplap siding with dog–eared ends. The butted window casings and simple corner boards have been spray–painted red. Attempts to spray–paint the window muntins has resulted in overspray onto the panes. Most of the windows are wooden single–pane double–hung sash windows. Other likely original window types include six–light awning windows and four light casement windows, which appear on the bedroom and mudroom units. Windows on the upper story of the primary façade have partially been replaced with vinyl four–light casement windows. The windows along the mudroom feature exterior casement screens. A 30" wooden glazed door is the only remaining door on the building, as all others have been removed. A modern metal screen door fronts the mudroom. The low–pitch side–gabled roof of the two–story unit is clad in tarpaper, and features open eaves and exposed rafter tails. The kitchen is topped by a roof extension from the first floor of the two–story unit. Its roofing is similar, but it features a modern gutter. The northwestern bedroom unit features a side–gabled roof parallel to the two–story unit, and otherwise bears similar features to the two–story unit and kitchen. The mudroom features a composition shingle roof and exposed rafter tails. Its gabled roof attaches underneath the plane of the roof extension on the kitchen. A steel chimney and vent stacks project from the roof. Utilities include gas and electricity, serviced by a PGE Smart Meter, and a satellite dish. This house is in overall fair condition, remaining structurally straight despite resting on an antiquated foundation. However, poorly–executed repairs, decaying materials, demolition by neglect, and occupation by transients has caused noticeable damage to the building. Ornamental trees around the house have encroached on the southwestern and southeastern corners, obscuring most of the building from view in the public right–of–way.

Workshop

The workshop lies 40 feet north of the single–family residence. It appears on aerial imagery dating to 1939; its form and materials suggest it was constructed contemporaneously to the residence. This front–gabled building consists of two stories in its main unit, and a room extension on its western façade. The primary entryway lies on the eastern façade, and features a 30" wooden panel door. The building rests on a post foundation, which has begun to settle on the south. As a result, the building lists slightly. What original siding may have existed has been replaced with irregularly–cut sheets of plywood, affixed with wood screws and sporadically covered in roll composition paper and tarpaper. Windows on the upper level of the northern façade appear to be wooden eight–light fixed windows, roughly aligned over openings in the plywood and held in place with strips of scrap lumber. A rectangular window opening faces south on the upper story. Aluminum sliders line the lower floor of the southern façade. The medium–pitch roof is clad in interlocking sheet metal roofing. Wide open eaves end in exposed rafter tails. The ends of skip sheathing extend to the east two feet beyond the roofing. Handmade work benches line the downstairs interior walls. The upper story is accessed by an indoor wooden ladder. The room extension to the west is only accessible from the outside by a half–glazed door on the southern façade. It is fully sided in roll composition roofing. Its low–pitch flat roof extends from the height of the first floor. Romex electrical wire attached to poles feeds power from the house to the workshop. Overall, this building is in poor condition, suffering from exposure to the elements, vandalism, and demolition by neglect. Whatever visible historical relationship it may have borne to the original construction has been obscured by expedient and poorly–executed repair work.

Garage

A detached garage lies 45 feet northeast of the residence and 20 feet east of the workshop. The front–gabled original portion of the garage likely dates to the construction of the residence, based on style, materials, and functionality. Its doors face south towards the driveway leading inward from Lone Tree Way. This garage clearly features two periods of construction—a parking space in the front, and a workspace addition in the rear.

The garage and addition rest on a post foundation. No listing or settling is immediately apparent. Siding consists of horizontal 1x6" shiplap, with simple corner boards. The primary entrance to the garage is a matched pair of shed doors, allowing entry for a single vehicle. The siding and doors are painted beige, with red trim. A single–pane double–hung window opening lies on each side of the garage space, but both have been boarded up. The original medium–pitch front–gabled roof is mostly clad in roll composition roofing, but peeled sections reveal short Hollywood shakes underneath. The roof ends in short plumb–cut exposed rafter tails and open eaves. The addition to the rear is constructed a variety of repurposed materials, including 1x6" horizontal shiplap, irregularly–cut plywood, and dimensional lumber. The flat roof extends north from the gable end, and is clad in roll composition roofing. An electrical box attached to a pole on the west side of the addition connects to the house and the shop.

Isolated Finds

Two finds not clearly associated with either residential complex were recorded as isolated finds. Both of these finds are located on the property at 7650 Lone Tree Way. These are:

1. A persimmon tree located 120 feet west–northwest of the residence. This tree stands approximately 12 feet tall, and measures approximately five inches DBH. The tree was identified as a persimmon based on remaining stems hanging

from branches. Two branches which had begun to splay apart were wired together with round horse wire, now submerged into the bark. A relatively–recent aluminum tag, numbered 147, hangs from the tree.

2. A concrete irrigation valve in the western margin of the property, about 550 feet west–northwest of the residence. Mechanically, the valve comprises a flange fitted to the end of a vertical concrete pipe, with a cover which is raised and lowered by a large square–headed brass bolt. Technically an orchard valve, the cover reads "THE KT VALVE No 12 ½B / MARTIN IRON WORKS". The valve sits atop a 16–inch concrete pipe which stands three feet above ground level. This feature is presumably associated with the orchards which formerly stood on most of the property. These orchards appear on aerial photography in this area into the 1960s (CAS 1965).

B10. Significance (continued from p. 2)

Historic Context (continued)

The commission merchant firm of Balfour, Guthrie and Company held considerable sway over the region in the early 20th century, particularly in the town of Brentwood. This company, based in London, began its tenure in California by importing British manufactured goods and exporting Californian wheat to a global market. This initial scope expanded broadly as associated British investors lent their capital to the company's varying ventures and misadventures, including lumber, coal, commercial fisheries, mortgage loans, and real estate investment (Rothstein 1963:393). These latter two industries led the company to purchase Rancho Los Méganos in 1910. Balfour, Guthrie and Company was responsible for developing pastoral land around Brentwood into commercial wheat fields, establishing the Bank of Brentwood, constructing new buildings to develop the town, and for subdividing the land into parcels which facilitated extensive urban development (Hulaniski 1917:281-282).

Among the many enduring contributions of Balfour, Guthrie, and Company to the area was to build infrastructure which supported intensive agriculture. In early years, the sandy soils of Lone Tree Valley were deemed generally poor for agriculture. To solve this issue, the engineers at Balfour, Guthrie, and Company began constructing an irrigation district from Indian River in 1888. This concrete ditch system serviced 13,000 acres in the area, and cost around $500,000. The company initially supported the growth of wheat, oats, and barley on company lands and neighboring farms. Over time, the economy shifted towards fruit, English walnuts, and alfalfa In addition to this work, Balfour, Guthrie, and Company established an experimental farm, where they successfully grew more delicate crops, such as celery, asparagus, and potatoes, alongside other fruits and vegetables (HRC 1926:166). Aerial imagery reveals extensive orchards in the area as late as the 1960s (CAS 1958, 1965; FAS 1939)

During the Great Depression, many agricultural workers fleeing the Midwest found their way to Brentwood to work. Davis Camp, located a mile southeast of the Project Area along Marsh Creek southeast of the intersection of Brentwood Boulevard and Sunset Road, became a center for these Dust Bowl migrants. This camp was operated under the auspices of O.R. "Cal" Davis, a Dust Bowl migrant himself. As many as 1000 people lived in tents and shacks at Davis Camp by 1934 (Hartley 2009). Local farmers would hire workers on an as–needed basis from Davis Camp to work in fields, paying hourly. Descendants recall that the apricot industry prevailed in Brentwood at this time. Some of these families saved enough to buy property and farm themselves because of the social support of Davis Camp (Kukulich 2019).

Despite the successes of Davis Camp, labor strife characterized the apricot industry of this time. Protesting low pay, many farm laborers participated in an ultimately unsuccessful strike against apricot farmers in 1934. Incoming sheriff John A. Miller campaigned on resolving this tension, and implemented the Brentwood–Miller Plan, which at once negotiated higher pay for workers and kept close tabs on the activities of farm laborers. This involved registration with the sheriff's office and intense scrutiny against unionization efforts (Baum 1963:40-42, 46).

The town of Brentwood voted for incorporation in 1948. In 1963, its first proper City Hall was constructed. The trajectory of the city since its incorporation has been an emphasis on residential development, which continues to the present. The expansion of suburban development has meant the removal of many former farms (ECCHS 2021).

Property History

As early as 1875, historic maps identify the owner of the Project Area and surrounding lands as the O'Brien family (CCCAD 1875). Patrick O'Brien Sr. (1828-1898) came to Contra Costa County in 1869 with his family. His son, Patrick Jr. (1859-1912), attended school at the Lone Tree School to the west of the Project Area, and became one of its trustees later in life. Patrick O'Brien Jr. remained on the property his whole life, growing grapes and almonds (Hulaniski 1917:551).

Patrick O'Brien Jr. sold a 270-acre portion of his property to Joseph G. Prewett (1861-1932), a farmer and stock raiser. Prewett married his daughter Ellen in 1898. Prewett, a native of Illinois, came to the area in 1884, and worked as a tenant farmer on local properties. Prewett supposedly bears responsibility for naming Lone Tree Way, "because a solemn sycamore tree grew in the plain between Brentwood and Antioch where the road connecting the two towns was to be constructed (Hartley 2010:4a). This story seems apocryphal, as the Lone Tree toponym dates to as far back as 1869 (Hulaniski 1917:217). Prewett further acted as the vice-president of the First National Bank of Antioch, the president of the Antioch Warehouse Association, and president of horse breeding associations in Oakley and Brentwood (Hulaniski 1917:540). The Prewett family held a longstanding reputation for civic involvement and charitable work, donating land for parks, participating in school boards, and developing local infrastructure (ECT 2017). Prewett Ranch, a subdivision immediately south of the Project Area, was a portion of the actual Prewett Ranch, as was the Project Area itself. The 1912 Prewetts Ellendale subdivision, a large tract of land enveloping the Project Area, was presumably named for Ellen O'Brien Prewett.

Historic Resource Evaluation

In order for a property to be considered eligible for listing in the CRHR, it must possess historical significance by fulfilling at least one of four criteria, and retain sufficient integrity, defined by seven aspects (PRC Section 5024.1(c)). This section outlines the evidence for significance and integrity of 7590 and 7650 Lone Tree Way based on these criteria. Because these properties appear to bear intertwined life histories, they are evaluated together rather than separately.

Criteria for Significance

Criterion 1

Criterion 1 identifies significant resources as those "that are associated with events that have made a significant contribution to the broad patterns of our history" (PRC § 5024.1(c)(1)). The Brentwood region was historically populated by fruit orchards, and the properties appear to have borne a relationship to the fruit industry. However, many buildings and features of this time, including orchards, barns, agricultural apparatuses, and access roads, no longer exist, leaving only the residences and associated outbuildings at these properties. Furthermore, alterations to the remaining buildings have detracted from their association with the agricultural past of Lone Tree Valley. Therefore, these properties do not meet Criterion 1.

Criterion 2

Criterion 2 identifies significant resources as those "that are associated with the lives of persons significant in our past" (PRC § 5024.1(c)(2)). Genealogical review and discussions with neighbors during field survey identified the Nicoletti family as the owners of the property during the mid–20th century. Attempts to identify the Nicoletti family's role in agricultural or other pursuits in local or state history were unsuccessful. The residential complexes at these properties thus do not fulfill Criterion 2.

Criterion 3

Criterion 3 identifies significant resources as those "that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction" (PRC § 5024.1(c)(3)). All extant buildings and structures at both residential complexes do not conform to high architectural styles. The only building to bear stylistic influences is the 1966 residence at 7590 Lone Tree Way, which is still a minimal adaptation of the mid–century Ranch style. The methods and materials used to construct these properties are not the work of a master, but rather of many anonymous bricoleurs attempting to retrofit existing structures to their ever–changing needs. Neither of the complexes, as individual entities nor as a pair, represent distinguishable entities, and thus fall short of Criterion 3.

Criterion 4

Criterion 4 identifies significant resources as those "that have yielded, or may be likely to yield, information important in prehistory or history" (PRC § 5024.1(c)(4)). The methods used in constructing the buildings on these properties are generally conventional. Those which deviate from the norm are not unusual because of architectural or engineering innovation, but because of their vernacular character and apparently expedient response to immediate needs. However, neither this, nor other aspects of these properties, elevate the significance of these properties to meet Criterion 4.

Aspects of Integrity

Location

All buildings and structures appear to have been constructed on–site. Therefore, both properties retain integrity of location.

Design

Most buildings on both properties have experienced modest to complete remodeling, mostly using new and mismatched materials that do not reflect the design sense of the original building. The only building out of the five which has not seen extensive

modification to its exterior components is the 1966 residence at 7590 Lone Tree Way, but this building postdates the property's relationship to commercial agriculture. Both properties thus lack integrity of design.

Setting

The historical character of the area in the 20th century was rural and distinctly agricultural. Aerial imagery reveals that the property and many surrounding properties were almost fully planted in orchards (CAS 1958, 1965; FAS 1939). However, rapid suburban development in the surrounding area and removal of most agricultural features from these properties has redefined the area. To visit the property, one would not visually comprehend the extent of orchards that once populated the area, especially the parcels in question. Thus, these properties lack integrity of setting.

Materials

The continued remodeling and alteration of the buildings at both properties has detracted from the historical character of the properties. The 1919 residence at 7590 and the workshop at 7650 in particular have been fundamentally changed to such an extent that only background research revealed their age. The residence and garage at 7650 visibly retain historical materials, but additions, neglect, and expedient repairs have all detracted from their original stylistic sense. Again, the 1966 residence, the newest of the buildings, naturally has experienced the fewest alterations concerning materials. The integrity of materials at both properties is thus low.

Workmanship

The original portions of the residence and garage at 7650 demonstrate some attention to craftsmanship. Most buildings across these properties have been modestly to dramatically altered by the work of bricoleurs over time, sometimes to the point that the buildings no longer appear their age. Much of the later work performed on these buildings demonstrates a series of expedient repairs and additions. Some of these alterations demonstrate care and planning, but most represent a response to immediate concerns, as expressed through mismatched and ill–fitting materials. With the exception of the 1966 residence, all of the buildings feature some level of this work. The pig pen, constructed of a surprisingly broad array of found materials, perhaps most dramatically embodies this practice. This type of building, while necessarily inventive and creative, does not meet the threshold of workmanship which was evident in the original construction. Therefore, the integrity of workmanship on both properties is low.

Feeling

Ill–fitting additions, expedient repairs, abandonment, and demolition by neglect have all detracted from the feeling of historical character conveyed by the buildings. The best cases, the residence and garage at 7650, show application of original materials that speaks to early 20th century vernacular takes on decorative trends, including the trim work on the double doors of the garage and window casings. But most of the character which conveys feeling is absent. The worst cases, the workshop and the 1919 residence, have been so dramatically altered that their original date of construction is nearly inscrutable without background research. The general feeling of the property speaks more strongly to the odd alterations and abandonment rather than the historical character of the original construction. Both properties thus lack integrity of feeling.

Association

The former fruit fields which populated the properties have long since been removed. The agricultural outbuildings, structures, features, and apparatus have been removed. The extent to which buildings have been remodeled on the property generally distance themselves from this context, as well as their former architectural character. No distinctive marks or even shreds of data beyond ownership information clearly associate the property with the Nicoletti family, nor any other former residents. Thus, the property lacks integrity of association.

Uniqueness of Resource

While many agricultural properties have been converted for suburban development in Brentwood and the greater East Bay, this property does not represent a distinctive property in that theme. Nor do the remaining buildings or structures possess unique qualities in design, construction, or materials. Therefore, neither property meets the definition of a "unique archaeological resource" as defined in section 21083.2 of CEQA.

In sum, the properties at 7590 and 7650 Lone Tree Way meet none of the criteria for integrity, and only meet the most basic aspects of integrity. These properties are therefore recommended as *ineligible* for inclusion on the CRHR.

B12. References (continued from p.2)

Baum. Willa Klug
1963 *The Brentwood Plan for Agricultural Labor.* Oral history interview with John A. Miller. Regional Cultural History Project, University of California, Berkeley.

Cartwright Aerial Surveys (CAS)
1958 Aerial photo frame 10V-186. Flight BUU_1958. University of Santa Barbara Map and Imagery Lab. 1:20,000 scale.

1965 Aerial photo frame 25-64. Flight CAS_65_130. University of Santa Barbara Map and Imagery Lab. 1:12,000 scale.

Contra Costa County Assessor's Deputies (CCCAD)
1875 *Antioch to Oakley.* Tax Assessor map. Call no. T-006. Contra Costa County Historical Society. 1:31,680 scale.

Contra Costa County Assessor's Office (CCCAO)
2021 Parcel report for parcel 018-060-007-4. Contra Costa County Assessor's Office, Martinez, CA.

East Contra Costa Historical Society (ECCHS)
2021 Brentwood History. Electronic document: https://eastcontracostahistory.org/our-communities/brentwood/, accessed 25 February 2022.

East County Today (ECT)
2017 Saturday: Antioch Water Park Opens. May 27. https://eastcountytoday.net/saturday-antioch-water-park-opens/, accessed 25 February 2022.

Fairchild Aerial Surveys (FAS)
1939 Aerial photo frame 268-65. Flight C_5750. University of Santa Barbara Map and Imagery Lab. 1:20,000 scale.

Hartley, Samie
2009 The Lost History of Davis Camp. *Brentwood Press,* 30 April 2009. Electronic document: https://www.thepress.net/features/history/the-lost-history-of-davis-camp/article_1159da2d-5af7-50c1-93d8-6d0f2f65c447.html, accessed 23 March 2022.

2010 On Sale: A Year's Worth of Memories. *Antioch Press,* October 8:4a. Antioch, CA.

Historic Record Company (HRC)
1926 *History of Contra Costa County, California.* Historic Record Company, Los Angeles.

Hubka, Thomas C.
2013 *Houses Without Names: Architectural Nomenclature and the Classification of America's Common Houses.* University of Tennessee Press, Knoxville, TN.

Hulaniski, F. J.
1917 *The History of Contra Costa County, California.* The Elms Publishing Company, Berkeley, CA.

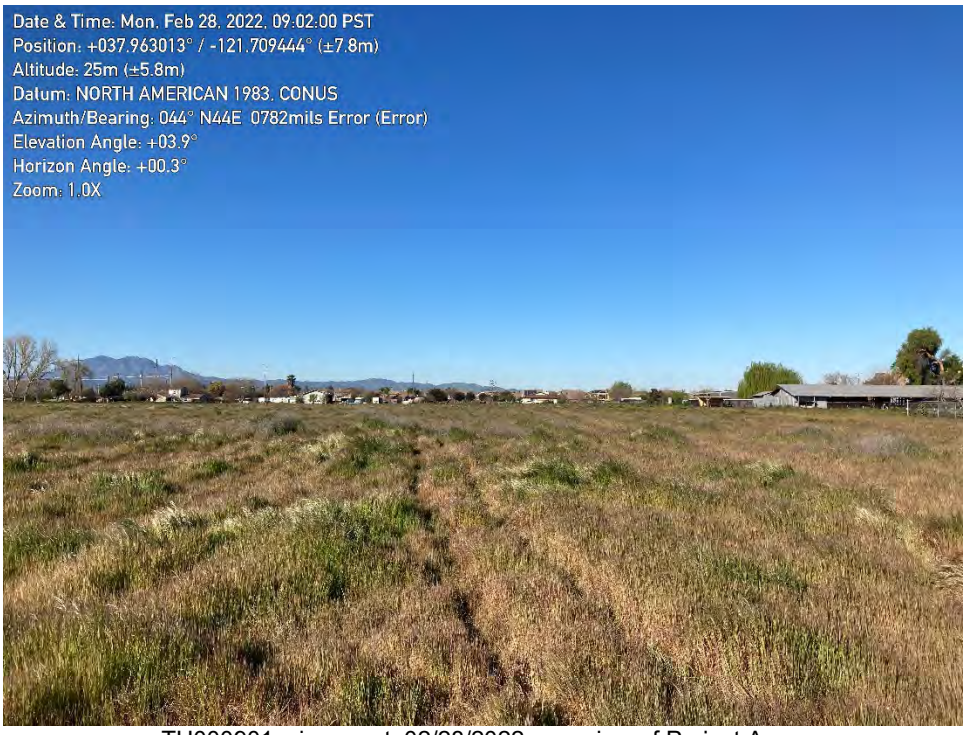
Kukulich, Tony
2019 Davis Camp – A Piece of East County History. *Brentwood Press,* 12 December 2019. Electronic document: https://www.thepress.net/features/davis-camp-a-piece-of-east-county-history/article_b8071178-1d03-11ea-ba75-6f4d1a2aaf0d.html, accessed 23 March 2022.

Munro-Fraser, J. P.
1882 *History of Contra Costa County, California.* W. A. Slocum and Company, San Francisco.

Rothstein, Morton
1963 A British Firm on the American West Coast, 1860-1914. *The Business History Review* 37(4):392-415.

Venit-Shelton, Tamara
2013 *A Squatter's Republic: Land and the Politics of Monopoly in California, 1850-1900.* University of California Press, Berkeley.

Photographs



TH000901, view west, 02/28/2022, overview of Project Area.

TH000912, plan view, 02/28/2022, shovel pit 12, exhibiting sandy soils throughout Project Area.

TH000991, view north, 02/28/2022, primary façade of ca. 1920 residence at 7650 Lone Tree Way.

TH000998, view north, 02/28/2022, eastern and northern façades of ca. 1920 residence at 7650 Lone Tree Way.

TH001030, view northwest, 02/28/2022, southern and eastern façades of workshop at 7650 Lone Tree Way.

TH001035, view northeast, 02/28/2022, western and southern façades of garage at 7650 Lone Tree Way.

TH000906, view north, 02/28/2022, isolated persimmon tree at 7650 Lone Tree Way.

TH000916, view northeast, 02/28/2022, isolated irrigation valve 7650 Lone Tree Way.

TH000972, view northwest, 02/28/2022, view from street of residences at 7590 Lone Tree Way.

TH000973, view north, 02/28/2022, southern façade of 1966 residence at 7590 Lone Tree Way.

TH001035, view northwest, 02/28/2022, southern and eastern façades of 1919 residence at 7590 Lone Tree Way.

TH001035, view northeast, 02/28/2022, northern and western façades of 1919 residence at 7590 Lone Tree Way.

TH000928, view east, 02/28/2022, western fencing of pig pen.

TH000936, view west, 02/28/2022, detail of pig pen.

Appendix C: AQ/GHG/Energy Modeling and Calculations

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Brentwood Lone Tree Way

Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	35.00	Dwelling Unit	16.30	63,000.00	100

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 16.3-acre project site

Demolition - 5 residences to be demolished. Estimated 7,500 sf to be demolished.

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	11.36	16.30

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.2146	2.0258	2.0320	3.8200e-003	0.2548	0.0931	0.3479	0.1099	0.0869	0.1968	0.0000	332.6578	332.6578	0.0854	1.3500e-003	335.1951
2024	0.5627	1.0764	1.3393	2.3000e-003	0.0106	0.0490	0.0596	2.8700e-003	0.0460	0.0489	0.0000	199.3874	199.3874	0.0458	9.9000e-004	200.8282
Maximum	**0.5627**	**2.0258**	**2.0320**	**3.8200e-003**	**0.2548**	**0.0931**	**0.3479**	**0.1099**	**0.0869**	**0.1968**	**0.0000**	**332.6578**	**332.6578**	**0.0854**	**1.3500e-003**	**335.1951**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.2146	2.0258	2.0320	3.8200e-003	0.2548	0.0931	0.3479	0.1099	0.0869	0.1968	0.0000	332.6574	332.6574	0.0854	1.3500e-003	335.1947
2024	0.5627	1.0764	1.3393	2.3000e-003	0.0106	0.0490	0.0596	2.8700e-003	0.0460	0.0489	0.0000	199.3872	199.3872	0.0458	9.9000e-004	200.8280
Maximum	**0.5627**	**2.0258**	**2.0320**	**3.8200e-003**	**0.2548**	**0.0931**	**0.3479**	**0.1099**	**0.0869**	**0.1968**	**0.0000**	**332.6574**	**332.6574**	**0.0854**	**1.3500e-003**	**335.1947**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**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**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**3-1-2023**	**5-31-2023**	1.0071	1.0071
2	**6-1-2023**	**8-31-2023**	0.5320	0.5320
3	**9-1-2023**	**11-30-2023**	0.5266	0.5266
4	**12-1-2023**	**2-29-2024**	0.5043	0.5043
5	**3-1-2024**	**5-31-2024**	0.4978	0.4978
6	**6-1-2024**	**8-31-2024**	0.6487	0.6487
7	**9-1-2024**	**9-30-2024**	0.1634	0.1634
		Highest	1.0071	1.0071

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5045	7.5100e-003	0.5597	6.3000e-004		0.0447	0.0447		0.0447	0.0447	4.4489	1.5169	5.9657	8.8100e-003	2.5000e-004	6.2619
Energy	5.0300e-003	0.0430	0.0183	2.7000e-004		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003	0.0000	75.1035	75.1035	5.0600e-003	1.4100e-003	75.6498
Mobile	0.1389	0.1534	1.2676	2.6000e-003	0.2790	1.9500e-003	0.2809	0.0745	1.8200e-003	0.0763	0.0000	239.7862	239.7862	0.0160	0.0116	243.6415
Waste						0.0000	0.0000		0.0000	0.0000	8.5256	0.0000	8.5256	0.5039	0.0000	21.1219
Water						0.0000	0.0000		0.0000	0.0000	0.7235	1.6072	2.3307	0.0746	1.7900e-003	4.7271
Total	**0.6484**	**0.2038**	**1.8456**	**3.5000e-003**	**0.2790**	**0.0501**	**0.3291**	**0.0745**	**0.0500**	**0.1245**	**13.6980**	**318.0137**	**331.7117**	**0.6083**	**0.0151**	**351.4021**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5045	7.5100e-003	0.5597	6.3000e-004		0.0447	0.0447		0.0447	0.0447	4.4489	1.5169	5.9657	8.8100e-003	2.5000e-004	6.2619
Energy	5.0300e-003	0.0430	0.0183	2.7000e-004		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003	0.0000	75.1035	75.1035	5.0600e-003	1.4100e-003	75.6498
Mobile	0.1389	0.1534	1.2676	2.6000e-003	0.2790	1.9500e-003	0.2809	0.0745	1.8200e-003	0.0763	0.0000	239.7862	239.7862	0.0160	0.0116	243.6415
Waste						0.0000	0.0000		0.0000	0.0000	8.5256	0.0000	8.5256	0.5039	0.0000	21.1219
Water						0.0000	0.0000		0.0000	0.0000	0.7235	1.6072	2.3307	0.0746	1.7900e-003	4.7271
Total	**0.6484**	**0.2038**	**1.8456**	**3.5000e-003**	**0.2790**	**0.0501**	**0.3291**	**0.0745**	**0.0500**	**0.1245**	**13.6980**	**318.0137**	**331.7117**	**0.6083**	**0.0151**	**351.4021**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**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**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	8/14/2024	9/10/2024	5	20	
2	Building Construction	Building Construction	5/24/2023	7/16/2024	5	300	
3	Demolition	Demolition	3/1/2023	3/28/2023	5	20	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Grading	Grading	4/12/2023	5/23/2023	5	30	
5	Paving	Paving	7/17/2024	8/13/2024	5	20	
6	Site Preparation	Site Preparation	3/29/2023	4/11/2023	5	10	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 0

Residential Indoor: 127,575; Residential Outdoor: 42,525; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	13.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	34.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4435					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**0.4453**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	6.3000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1790	0.1790	1.0000e-005	0.0000	0.1806
Total	**7.0000e-005**	**5.0000e-005**	**6.3000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1790**	**0.1790**	**1.0000e-005**	**0.0000**	**0.1806**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4435					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**0.4453**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	6.3000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1790	0.1790	1.0000e-005	0.0000	0.1806
Total	**7.0000e-005**	**5.0000e-005**	**6.3000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**2.4000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1790**	**0.1790**	**1.0000e-005**	**0.0000**	**0.1806**

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1243	1.1364	1.2833	2.1300e-003		0.0553	0.0553		0.0520	0.0520	0.0000	183.1258	183.1258	0.0436	0.0000	184.2148
Total	**0.1243**	**1.1364**	**1.2833**	**2.1300e-003**		**0.0553**	**0.0553**		**0.0520**	**0.0520**	**0.0000**	**183.1258**	**183.1258**	**0.0436**	**0.0000**	**184.2148**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.6000e-004	0.0141	4.6100e-003	7.0000e-005	2.0800e-003	8.0000e-005	2.1600e-003	6.0000e-004	8.0000e-005	6.8000e-004	0.0000	6.3320	6.3320	1.3000e-004	9.2000e-004	6.6082
Worker	2.6900e-003	1.8400e-003	0.0230	7.0000e-005	8.1500e-003	4.0000e-005	8.1900e-003	2.1700e-003	4.0000e-005	2.2000e-003	0.0000	6.3352	6.3352	1.9000e-004	1.8000e-004	6.3933
Total	**3.0500e-003**	**0.0159**	**0.0276**	**1.4000e-004**	**0.0102**	**1.2000e-004**	**0.0104**	**2.7700e-003**	**1.2000e-004**	**2.8800e-003**	**0.0000**	**12.6672**	**12.6672**	**3.2000e-004**	**1.1000e-003**	**13.0015**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1243	1.1364	1.2833	2.1300e-003		0.0553	0.0553		0.0520	0.0520	0.0000	183.1255	183.1255	0.0436	0.0000	184.2146
Total	**0.1243**	**1.1364**	**1.2833**	**2.1300e-003**		**0.0553**	**0.0553**		**0.0520**	**0.0520**	**0.0000**	**183.1255**	**183.1255**	**0.0436**	**0.0000**	**184.2146**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.6000e-004	0.0141	4.6100e-003	7.0000e-005	2.0800e-003	8.0000e-005	2.1600e-003	6.0000e-004	8.0000e-005	6.8000e-004	0.0000	6.3320	6.3320	1.3000e-004	9.2000e-004	6.6082
Worker	2.6900e-003	1.8400e-003	0.0230	7.0000e-005	8.1500e-003	4.0000e-005	8.1900e-003	2.1700e-003	4.0000e-005	2.2000e-003	0.0000	6.3352	6.3352	1.9000e-004	1.8000e-004	6.3933
Total	**3.0500e-003**	**0.0159**	**0.0276**	**1.4000e-004**	**0.0102**	**1.2000e-004**	**0.0104**	**2.7700e-003**	**1.2000e-004**	**2.8800e-003**	**0.0000**	**12.6672**	**12.6672**	**3.2000e-004**	**1.1000e-003**	**13.0015**

3.3 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1045	0.9545	1.1478	1.9100e-003		0.0435	0.0435		0.0410	0.0410	0.0000	164.6129	164.6129	0.0389	0.0000	165.5860
Total	**0.1045**	**0.9545**	**1.1478**	**1.9100e-003**		**0.0435**	**0.0435**		**0.0410**	**0.0410**	**0.0000**	**164.6129**	**164.6129**	**0.0389**	**0.0000**	**165.5860**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2000e-004	0.0127	4.0400e-003	6.0000e-005	1.8700e-003	8.0000e-005	1.9400e-003	5.4000e-004	7.0000e-005	6.1000e-004	0.0000	5.6126	5.6126	1.1000e-004	8.1000e-004	5.8567
Worker	2.2500e-003	1.4800e-003	0.0193	6.0000e-005	7.3200e-003	4.0000e-005	7.3600e-003	1.9500e-003	3.0000e-005	1.9800e-003	0.0000	5.5080	5.5080	1.5000e-004	1.5000e-004	5.5566
Total	**2.5700e-003**	**0.0142**	**0.0233**	**1.2000e-004**	**9.1900e-003**	**1.2000e-004**	**9.3000e-003**	**2.4900e-003**	**1.0000e-004**	**2.5900e-003**	**0.0000**	**11.1206**	**11.1206**	**2.6000e-004**	**9.6000e-004**	**11.4133**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1045	0.9545	1.1478	1.9100e-003		0.0435	0.0435		0.0410	0.0410	0.0000	164.6127	164.6127	0.0389	0.0000	165.5858
Total	**0.1045**	**0.9545**	**1.1478**	**1.9100e-003**		**0.0435**	**0.0435**		**0.0410**	**0.0410**	**0.0000**	**164.6127**	**164.6127**	**0.0389**	**0.0000**	**165.5858**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2000e-004	0.0127	4.0400e-003	6.0000e-005	1.8700e-003	8.0000e-005	1.9400e-003	5.4000e-004	7.0000e-005	6.1000e-004	0.0000	5.6126	5.6126	1.1000e-004	8.1000e-004	5.8567
Worker	2.2500e-003	1.4800e-003	0.0193	6.0000e-005	7.3200e-003	4.0000e-005	7.3600e-003	1.9500e-003	3.0000e-005	1.9800e-003	0.0000	5.5080	5.5080	1.5000e-004	1.5000e-004	5.5566
Total	**2.5700e-003**	**0.0142**	**0.0233**	**1.2000e-004**	**9.1900e-003**	**1.2000e-004**	**9.3000e-003**	**2.4900e-003**	**1.0000e-004**	**2.5900e-003**	**0.0000**	**11.1206**	**11.1206**	**2.6000e-004**	**9.6000e-004**	**11.4133**

3.4 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.6900e-003	0.0000	3.6900e-003	5.6000e-004	0.0000	5.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0227	0.2148	0.1964	3.9000e-004		9.9800e-003	9.9800e-003		9.2800e-003	9.2800e-003	0.0000	33.9921	33.9921	9.5200e-003	0.0000	34.2301
Total	**0.0227**	**0.2148**	**0.1964**	**3.9000e-004**	**3.6900e-003**	**9.9800e-003**	**0.0137**	**5.6000e-004**	**9.2800e-003**	**9.8400e-003**	**0.0000**	**33.9921**	**33.9921**	**9.5200e-003**	**0.0000**	**34.2301**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Demolition - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	2.2900e-003	5.4000e-004	1.0000e-005	2.9000e-004	2.0000e-005	3.1000e-004	8.0000e-005	2.0000e-005	1.0000e-004	0.0000	1.0136	1.0136	3.0000e-005	1.6000e-004	1.0623
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.7000e-004	3.3600e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9253	0.9253	3.0000e-005	3.0000e-005	0.9338
Total	**4.3000e-004**	**2.5600e-003**	**3.9000e-003**	**2.0000e-005**	**1.4800e-003**	**3.0000e-005**	**1.5100e-003**	**4.0000e-004**	**3.0000e-005**	**4.2000e-004**	**0.0000**	**1.9389**	**1.9389**	**6.0000e-005**	**1.9000e-004**	**1.9961**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.6900e-003	0.0000	3.6900e-003	5.6000e-004	0.0000	5.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0227	0.2148	0.1964	3.9000e-004		9.9800e-003	9.9800e-003		9.2800e-003	9.2800e-003	0.0000	33.9920	33.9920	9.5200e-003	0.0000	34.2300
Total	**0.0227**	**0.2148**	**0.1964**	**3.9000e-004**	**3.6900e-003**	**9.9800e-003**	**0.0137**	**5.6000e-004**	**9.2800e-003**	**9.8400e-003**	**0.0000**	**33.9920**	**33.9920**	**9.5200e-003**	**0.0000**	**34.2300**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Demolition - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	2.2900e-003	5.4000e-004	1.0000e-005	2.9000e-004	2.0000e-005	3.1000e-004	8.0000e-005	2.0000e-005	1.0000e-004	0.0000	1.0136	1.0136	3.0000e-005	1.6000e-004	1.0623
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.7000e-004	3.3600e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9253	0.9253	3.0000e-005	3.0000e-005	0.9338
Total	**4.3000e-004**	**2.5600e-003**	**3.9000e-003**	**2.0000e-005**	**1.4800e-003**	**3.0000e-005**	**1.5100e-003**	**4.0000e-004**	**3.0000e-005**	**4.2000e-004**	**0.0000**	**1.9389**	**1.9389**	**6.0000e-005**	**1.9000e-004**	**1.9961**

3.5 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1381	0.0000	0.1381	0.0548	0.0000	0.0548	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642
Total	**0.0498**	**0.5177**	**0.4208**	**9.3000e-004**	**0.1381**	**0.0214**	**0.1594**	**0.0548**	**0.0197**	**0.0745**	**0.0000**	**81.8028**	**81.8028**	**0.0265**	**0.0000**	**82.4642**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.9000e-004	5.4000e-004	6.7300e-003	2.0000e-005	2.3800e-003	1.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.8506	1.8506	6.0000e-005	5.0000e-005	1.8676
Total	**7.9000e-004**	**5.4000e-004**	**6.7300e-003**	**2.0000e-005**	**2.3800e-003**	**1.0000e-005**	**2.3900e-003**	**6.3000e-004**	**1.0000e-005**	**6.4000e-004**	**0.0000**	**1.8506**	**1.8506**	**6.0000e-005**	**5.0000e-005**	**1.8676**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1381	0.0000	0.1381	0.0548	0.0000	0.0548	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641
Total	**0.0498**	**0.5177**	**0.4208**	**9.3000e-004**	**0.1381**	**0.0214**	**0.1594**	**0.0548**	**0.0197**	**0.0745**	**0.0000**	**81.8027**	**81.8027**	**0.0265**	**0.0000**	**82.4641**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.9000e-004	5.4000e-004	6.7300e-003	2.0000e-005	2.3800e-003	1.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.8506	1.8506	6.0000e-005	5.0000e-005	1.8676
Total	**7.9000e-004**	**5.4000e-004**	**6.7300e-003**	**2.0000e-005**	**2.3800e-003**	**1.0000e-005**	**2.3900e-003**	**6.3000e-004**	**1.0000e-005**	**6.4000e-004**	**0.0000**	**1.8506**	**1.8506**	**6.0000e-005**	**5.0000e-005**	**1.8676**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.8800e-003**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1885**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.4000e-004	3.1300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8951	0.8951	3.0000e-005	2.0000e-005	0.9030
Total	**3.7000e-004**	**2.4000e-004**	**3.1300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.8951**	**0.8951**	**3.0000e-005**	**2.0000e-005**	**0.9030**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.8800e-003**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1884**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.4000e-004	3.1300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8951	0.8951	3.0000e-005	2.0000e-005	0.9030
Total	**3.7000e-004**	**2.4000e-004**	**3.1300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.8951**	**0.8951**	**3.0000e-005**	**2.0000e-005**	**0.9030**

3.7 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	**0.0133**	**0.1376**	**0.0912**	**1.9000e-004**	**0.0983**	**6.3300e-003**	**0.1046**	**0.0505**	**5.8200e-003**	**0.0563**	**0.0000**	**16.7254**	**16.7254**	**5.4100e-003**	**0.0000**	**16.8606**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.6000e-004	2.0200e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5552	0.5552	2.0000e-005	2.0000e-005	0.5603
Total	**2.4000e-004**	**1.6000e-004**	**2.0200e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5552**	**0.5552**	**2.0000e-005**	**2.0000e-005**	**0.5603**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	**0.0133**	**0.1376**	**0.0912**	**1.9000e-004**	**0.0983**	**6.3300e-003**	**0.1046**	**0.0505**	**5.8200e-003**	**0.0563**	**0.0000**	**16.7253**	**16.7253**	**5.4100e-003**	**0.0000**	**16.8606**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.6000e-004	2.0200e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5552	0.5552	2.0000e-005	2.0000e-005	0.5603
Total	**2.4000e-004**	**1.6000e-004**	**2.0200e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5552**	**0.5552**	**2.0000e-005**	**2.0000e-005**	**0.5603**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1389	0.1534	1.2676	2.6000e-003	0.2790	1.9500e-003	0.2809	0.0745	1.8200e-003	0.0763	0.0000	239.7862	239.7862	0.0160	0.0116	243.6415
Unmitigated	0.1389	0.1534	1.2676	2.6000e-003	0.2790	1.9500e-003	0.2809	0.0745	1.8200e-003	0.0763	0.0000	239.7862	239.7862	0.0160	0.0116	243.6415

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	330.40	333.90	299.25	753,971	753,971
Total	330.40	333.90	299.25	753,971	753,971

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.561700	0.056037	0.179622	0.127612	0.023848	0.005501	0.007131	0.007135	0.000546	0.000337	0.025847	0.001311	0.003372

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	25.3666	25.3666	4.1000e-003	5.0000e-004	25.6174
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	25.3666	25.3666	4.1000e-003	5.0000e-004	25.6174
NaturalGas Mitigated	5.0300e-003	0.0430	0.0183	2.7000e-004		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003	0.0000	49.7369	49.7369	9.5000e-004	9.1000e-004	50.0324
NaturalGas Unmitigated	5.0300e-003	0.0430	0.0183	2.7000e-004		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003	0.0000	49.7369	49.7369	9.5000e-004	9.1000e-004	50.0324

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	932034	5.0300e-003	0.0430	0.0183	2.7000e-004		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003	0.0000	49.7369	49.7369	9.5000e-004	9.1000e-004	50.0324
Total		**5.0300e-003**	**0.0430**	**0.0183**	**2.7000e-004**		**3.4700e-003**	**3.4700e-003**		**3.4700e-003**	**3.4700e-003**	**0.0000**	**49.7369**	**49.7369**	**9.5000e-004**	**9.1000e-004**	**50.0324**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	932034	5.0300e-003	0.0430	0.0183	2.7000e-004		3.4700e-003	3.4700e-003		3.4700e-003	3.4700e-003	0.0000	49.7369	49.7369	9.5000e-004	9.1000e-004	50.0324
Total		**5.0300e-003**	**0.0430**	**0.0183**	**2.7000e-004**		**3.4700e-003**	**3.4700e-003**		**3.4700e-003**	**3.4700e-003**	**0.0000**	**49.7369**	**49.7369**	**9.5000e-004**	**9.1000e-004**	**50.0324**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	274163	25.3666	4.1000e-003	5.0000e-004	25.6174
Total		**25.3666**	**4.1000e-003**	**5.0000e-004**	**25.6174**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	274163	25.3666	4.1000e-003	5.0000e-004	25.6174
Total		**25.3666**	**4.1000e-003**	**5.0000e-004**	**25.6174**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5045	7.5100e-003	0.5597	6.3000e-004		0.0447	0.0447		0.0447	0.0447	4.4489	1.5169	5.9657	8.8100e-003	2.5000e-004	6.2619
Unmitigated	0.5045	7.5100e-003	0.5597	6.3000e-004		0.0447	0.0447		0.0447	0.0447	4.4489	1.5169	5.9657	8.8100e-003	2.5000e-004	6.2619

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0444					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2063	4.5200e-003	0.3000	6.2000e-004		0.0433	0.0433		0.0433	0.0433	4.4489	1.0923	5.5412	8.4100e-003	2.5000e-004	5.8272
Landscaping	7.8100e-003	2.9900e-003	0.2598	1.0000e-005		1.4400e-003	1.4400e-003		1.4400e-003	1.4400e-003	0.0000	0.4245	0.4245	4.1000e-004	0.0000	0.4347
Total	**0.5045**	**7.5100e-003**	**0.5597**	**6.3000e-004**		**0.0447**	**0.0447**		**0.0447**	**0.0447**	**4.4489**	**1.5169**	**5.9657**	**8.8200e-003**	**2.5000e-004**	**6.2619**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0444					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2063	4.5200e-003	0.3000	6.2000e-004		0.0433	0.0433		0.0433	0.0433	4.4489	1.0923	5.5412	8.4100e-003	2.5000e-004	5.8272
Landscaping	7.8100e-003	2.9900e-003	0.2598	1.0000e-005		1.4400e-003	1.4400e-003		1.4400e-003	1.4400e-003	0.0000	0.4245	0.4245	4.1000e-004	0.0000	0.4347
Total	**0.5045**	**7.5100e-003**	**0.5597**	**6.3000e-004**		**0.0447**	**0.0447**		**0.0447**	**0.0447**	**4.4489**	**1.5169**	**5.9657**	**8.8200e-003**	**2.5000e-004**	**6.2619**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.3307	0.0746	1.7900e-003	4.7271
Unmitigated	2.3307	0.0746	1.7900e-003	4.7271

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	2.28039 / 1.43764	2.3307	0.0746	1.7900e-003	4.7271
Total		**2.3307**	**0.0746**	**1.7900e-003**	**4.7271**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	2.28039 / 1.43764	2.3307	0.0746	1.7900e-003	4.7271
Total		**2.3307**	**0.0746**	**1.7900e-003**	**4.7271**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.5256	0.5039	0.0000	21.1219
Unmitigated	8.5256	0.5039	0.0000	21.1219

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	42	8.5256	0.5039	0.0000	21.1219
Total		**8.5256**	**0.5039**	**0.0000**	**21.1219**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	42	8.5256	0.5039	0.0000	21.1219
Total		**8.5256**	**0.5039**	**0.0000**	**21.1219**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: County
Region: Contra Costa
Calendar Year: 2023, 2024
Season: Annual
Vehicle Classification: EMFAC202x Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	Fuel Consumption	**MPG (Derived)**	
Contra Costa	2023	All Other Buses	Aggregate	Aggregate	Diesel	102.7168135	5590.533033	0.660391649	**8.47**	
Contra Costa	2023	LDA	Aggregate	Aggregate	Gasoline	339848.9588	12783778.95	433.2349523	**29.51**	
Contra Costa	2023	LDA	Aggregate	Aggregate	Diesel	1457.686208	43468.16807	1.014509436	**42.85**	
Contra Costa	2023	LDT1	Aggregate	Aggregate	Gasoline	33659.33047	1179551.067	47.53835775	**24.81**	
Contra Costa	2023	LDT1	Aggregate	Aggregate	Diesel	18.53994299	234.1818834	0.00959385	**24.41**	
Contra Costa	2023	LDT2	Aggregate	Aggregate	Gasoline	154436.7581	6246459.649	262.0252258	**23.84**	
Contra Costa	2023	LDT2	Aggregate	Aggregate	Diesel	633.6788971	26711.66129	0.845542661	**31.59**	
Contra Costa	2023	LHD1	Aggregate	Aggregate	Gasoline	12655.98857	475389.2814	50.45098161	**9.42**	
Contra Costa	2023	LHD1	Aggregate	Aggregate	Diesel	8519.363379	324282.1544	20.56247885	**15.77**	
Contra Costa	2023	LHD2	Aggregate	Aggregate	Gasoline	1464.123804	54160.16187	6.440933891	**8.41**	
Contra Costa	2023	LHD2	Aggregate	Aggregate	Diesel	3253.077449	128992.0835	9.900338363	**13.03**	
Contra Costa	2023	MCY	Aggregate	Aggregate	Gasoline	18091.30846	103634.3955	2.524818346	**41.05**	
Contra Costa	2023	MDV	Aggregate	Aggregate	Gasoline	101543.9793	3817544.234	196.6448772	**19.41**	
Contra Costa	2023	MDV	Aggregate	Aggregate	Diesel	1630.416635	65604.49048	2.720317988	**24.12**	
Contra Costa	2023	MH	Aggregate	Aggregate	Gasoline	1847.486714	16879.83318	3.821072381	**4.42**	
Contra Costa	2023	MH	Aggregate	Aggregate	Diesel	776.6234936	7486.650414	0.796124298	**9.40**	
Contra Costa	2023	Motor Coach	Aggregate	Aggregate	Diesel	25.00930976	3563.250338	0.650715265	**5.48**	
Contra Costa	2023	OBUS	Aggregate	Aggregate	Gasoline	261.9126556	12187.45084	2.574760221	**4.73**	
Contra Costa	2023	PTO	Aggregate	Aggregate	Diesel	0	14031.30119	2.882248616	**4.87**	
Contra Costa	2023	SBUS	Aggregate	Aggregate	Gasoline	72.51601679	3942.491811	0.385709981	**10.22**	
Contra Costa	2023	SBUS	Aggregate	Aggregate	Diesel	424.700768	10038.86013	1.220418929	**8.23**	**MHD**
Contra Costa	2023	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	1.598918559	106.0852996	0.011995373	**8.84**	**8.42**
Contra Costa	2023	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	2.14633113	145.5442498	0.016434673	**8.86**	
Contra Costa	2023	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	6.759909737	380.0828664	0.042325772	**8.98**	
Contra Costa	2023	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	11.67116334	2385.590177	0.249386712	**9.57**	
Contra Costa	2023	T6 Instate Delivery (	Aggregate	Aggregate	Diesel	272.0803671	9151.940733	1.118151726	**8.18**	
Contra Costa	2023	T6 Instate Delivery (	Aggregate	Aggregate	Diesel	215.7849106	7444.584251	0.907048105	**8.21**	
Contra Costa	2023	T6 Instate Delivery (	Aggregate	Aggregate	Diesel	476.2169746	16172.18057	1.977220258	**8.18**	
Contra Costa	2023	T6 Instate Delivery (	Aggregate	Aggregate	Diesel	48.06527477	2604.331658	0.307498151	**8.47**	
Contra Costa	2023	T6 Instate Other Cla	Aggregate	Aggregate	Diesel	641.3795025	25844.04077	3.03781876	**8.51**	
Contra Costa	2023	T6 Instate Other Cla	Aggregate	Aggregate	Diesel	1384.470421	60672.78721	7.12651936	**8.51**	
Contra Costa	2023	T6 Instate Other Cla	Aggregate	Aggregate	Diesel	1083.173754	45970.46837	5.372168291	**8.56**	
Contra Costa	2023	T6 Instate Other Cla	Aggregate	Aggregate	Diesel	596.7411419	28230.69991	3.249968347	**8.69**	
Contra Costa	2023	T6 Instate Tractor C	Aggregate	Aggregate	Diesel	10.11650756	499.02118	0.06005661	**8.31**	
Contra Costa	2023	T6 Instate Tractor C	Aggregate	Aggregate	Diesel	68.14200953	4113.114827	0.458831054	**8.96**	
Contra Costa	2023	T6 OOS Class 4	Aggregate	Aggregate	Diesel	0.907776369	59.68516546	0.006744394	**8.85**	
Contra Costa	2023	T6 OOS Class 5	Aggregate	Aggregate	Diesel	1.213350781	81.87731419	0.009242798	**8.86**	
Contra Costa	2023	T6 OOS Class 6	Aggregate	Aggregate	Diesel	3.833955598	213.9477646	0.023803867	**8.99**	
Contra Costa	2023	T6 OOS Class 7	Aggregate	Aggregate	Diesel	6.2297904	1555.66629	0.161762211	**9.62**	
Contra Costa	2023	T6 Public Class 4	Aggregate	Aggregate	Diesel	81.93643222	2758.535954	0.365919609	**7.54**	
Contra Costa	2023	T6 Public Class 5	Aggregate	Aggregate	Diesel	131.8816857	4916.843655	0.637718525	**7.71**	
Contra Costa	2023	T6 Public Class 6	Aggregate	Aggregate	Diesel	129.1409415	4533.860056	0.597582092	**7.59**	
Contra Costa	2023	T6 Public Class 7	Aggregate	Aggregate	Diesel	193.3900677	8490.225955	1.103285546	**7.70**	
Contra Costa	2023	T6 Utility Class 5	Aggregate	Aggregate	Diesel	61.29453447	2496.19713	0.283488469	**8.81**	
Contra Costa	2023	T6 Utility Class 6	Aggregate	Aggregate	Diesel	11.65882778	471.4095116	0.053347449	**8.84**	
Contra Costa	2023	T6 Utility Class 7	Aggregate	Aggregate	Diesel	13.1913081	652.2476701	0.073510234	**8.87**	
Contra Costa	2023	T6TS	Aggregate	Aggregate	Gasoline	750.2651295	37968.8458	8.08396006	**4.70**	**HHD**
Contra Costa	2023	T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	605.0153014	123148.9749	20.40426755	**6.04**	**5.45**
Contra Costa	2023	T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	544.9508381	146704.1066	24.08899539	**6.09**	
Contra Costa	2023	T7 NOOS Class 8	Aggregate	Aggregate	Diesel	228.1338369	53307.43327	8.851337216	**6.02**	
Contra Costa	2023	T7 Other Port Class	Aggregate	Aggregate	Diesel	60.82353192	11414.00216	1.925486662	**5.93**	
Contra Costa	2023	T7 POAK Class 8	Aggregate	Aggregate	Diesel	398.5120723	40082.57831	6.883340422	**5.82**	
Contra Costa	2023	T7 Public Class 8	Aggregate	Aggregate	Diesel	459.1255967	19684.74115	3.818519986	**5.16**	
Contra Costa	2023	T7 Single Concrete/	Aggregate	Aggregate	Diesel	77.56643272	5451.001466	0.928418664	**5.87**	
Contra Costa	2023	T7 Single Dump Clas	Aggregate	Aggregate	Diesel	505.8303298	30544.27352	5.275692117	**5.79**	
Contra Costa	2023	T7 Single Other Clas	Aggregate	Aggregate	Diesel	571.2114713	30782.38384	5.245582563	**5.87**	
Contra Costa	2023	T7 SWCV Class 8	Aggregate	Aggregate	Diesel	180.889731	11731.98312	4.753583362	**2.47**	
Contra Costa	2023	T7 Tractor Class 8	Aggregate	Aggregate	Diesel	1267.30657	100602.1547	16.55431652	**6.08**	
Contra Costa	2023	T7 Utility Class 8	Aggregate	Aggregate	Diesel	43.18964562	1997.530522	0.345237335	**5.79**	
Contra Costa	2023	T7IS	Aggregate	Aggregate	Gasoline	0.930309911	50.36094261	0.012994029	**3.88**	
Contra Costa	2023	UBUS	Aggregate	Aggregate	Gasoline	102.1046403	5572.509057	0.903534331	**6.17**	
Contra Costa	2023	UBUS	Aggregate	Aggregate	Diesel	225.1598912	23149.45204	3.127387738	**7.40**	
Contra Costa	2024	All Other Buses	Aggregate	Aggregate	Diesel	104.3231502	5633.778237	0.665389759	**8.47**	
Contra Costa	2024	LDA	Aggregate	Aggregate	Gasoline	337674.9541	12810091.21	425.6108823	**30.10**	
Contra Costa	2024	LDA	Aggregate	Aggregate	Diesel	1353.056049	39823.37337	0.922696506	**43.16**	
Contra Costa	2024	LDT1	Aggregate	Aggregate	Gasoline	32588.84434	1149588.862	45.60485952	**25.21**	
Contra Costa	2024	LDT1	Aggregate	Aggregate	Diesel	16.66143594	204.9391268	0.008388401	**24.43**	
Contra Costa	2024	LDT2	Aggregate	Aggregate	Gasoline	156321.2466	6370854.236	261.0840599	**24.40**	
Contra Costa	2024	LDT2	Aggregate	Aggregate	Diesel	646.5782303	27148.78194	0.845447727	**32.11**	
Contra Costa	2024	LHD1	Aggregate	Aggregate	Gasoline	12544.45945	477189.7607	49.73464474	**9.59**	
Contra Costa	2024	LHD1	Aggregate	Aggregate	Diesel	8493.032597	325049.7904	20.52388187	**15.84**	
Contra Costa	2024	LHD2	Aggregate	Aggregate	Gasoline	1457.070779	54488.40608	6.371363265	**8.55**	

Contra Costa	2024	LHD2	Aggregate	Aggregate	Diesel	3307.738831	131282.2914	9.992554874	**13.14**
Contra Costa	2024	MCY	Aggregate	Aggregate	Gasoline	18015.43382	103611.1879	2.509850758	**41.28**
Contra Costa	2024	MDV	Aggregate	Aggregate	Gasoline	101283.7622	3842161.513	193.6376743	**19.84**
Contra Costa	2024	MDV	Aggregate	Aggregate	Diesel	1627.302932	64622.95422	2.64996745	**24.39**
Contra Costa	2024	MH	Aggregate	Aggregate	Gasoline	1757.818458	16248.5562	3.677398079	**4.42**
Contra Costa	2024	MH	Aggregate	Aggregate	Diesel	778.1731031	7477.58259	0.795438312	**9.40**
Contra Costa	2024	Motor Coach	Aggregate	Aggregate	Diesel	25.62586948	3575.409789	0.650165352	**5.50**
Contra Costa	2024	OBUS	Aggregate	Aggregate	Gasoline	253.1475798	11671.57743	2.43884844	**4.79**
Contra Costa	2024	PTO	Aggregate	Aggregate	Diesel	0	14109.51972	2.869179565	**4.92**
Contra Costa	2024	SBUS	Aggregate	Aggregate	Gasoline	75.79113375	4157.440014	0.404510868	**10.28**
Contra Costa	2024	SBUS	Aggregate	Aggregate	Diesel	428.9886064	10014.75514	1.21550503	**8.24**
Contra Costa	2024	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	1.625006729	106.5642092	0.011949599	**8.92**
Contra Costa	2024	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	2.168708058	146.2949915	0.016401199	**8.92**
Contra Costa	2024	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	7.076411609	381.0677894	0.042074755	**9.06**
Contra Costa	2024	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	11.93030526	2401.043409	0.247902952	**9.69**
Contra Costa	2024	T6 Instate Delivery (	Aggregate	Aggregate	Diesel	274.4755933	9205.333311	1.11864524	**8.23**
Contra Costa	2024	T6 Instate Delivery (	Aggregate	Aggregate	Diesel	219.208098	7500.559084	0.911432062	**8.23**
Contra Costa	2024	T6 Instate Delivery (	Aggregate	Aggregate	Diesel	482.2798037	16272.93066	1.980479168	**8.22**
Contra Costa	2024	T6 Instate Delivery (	Aggregate	Aggregate	Diesel	48.67690748	2629.991804	0.310380596	**8.47**
Contra Costa	2024	T6 Instate Other Cla	Aggregate	Aggregate	Diesel	636.7183118	26037.06831	3.051749885	**8.53**
Contra Costa	2024	T6 Instate Other Cla	Aggregate	Aggregate	Diesel	1405.781945	61118.78911	7.164329941	**8.53**
Contra Costa	2024	T6 Instate Other Cla	Aggregate	Aggregate	Diesel	1090.909974	46303.56714	5.398463937	**8.58**
Contra Costa	2024	T6 Instate Other Cla	Aggregate	Aggregate	Diesel	618.4889267	28444.98814	3.265689937	**8.71**
Contra Costa	2024	T6 Instate Tractor C	Aggregate	Aggregate	Diesel	10.18280113	501.7853112	0.06011706	**8.35**
Contra Costa	2024	T6 Instate Tractor C	Aggregate	Aggregate	Diesel	69.87423964	4154.904409	0.46296295	**8.97**
Contra Costa	2024	T6 OOS Class 4	Aggregate	Aggregate	Diesel	0.92678739	60.2625293	0.006724972	**8.96**
Contra Costa	2024	T6 OOS Class 5	Aggregate	Aggregate	Diesel	1.231087996	82.66935356	0.009230631	**8.96**
Contra Costa	2024	T6 OOS Class 6	Aggregate	Aggregate	Diesel	4.036387686	216.0173861	0.023694065	**9.12**
Contra Costa	2024	T6 OOS Class 7	Aggregate	Aggregate	Diesel	6.331428375	1570.715012	0.160992485	**9.76**
Contra Costa	2024	T6 Public Class 4	Aggregate	Aggregate	Diesel	81.19104212	2751.885797	0.361293613	**7.62**
Contra Costa	2024	T6 Public Class 5	Aggregate	Aggregate	Diesel	133.2140927	4923.965039	0.635118854	**7.75**
Contra Costa	2024	T6 Public Class 6	Aggregate	Aggregate	Diesel	128.0801618	4531.722783	0.591430531	**7.66**
Contra Costa	2024	T6 Public Class 7	Aggregate	Aggregate	Diesel	190.7981306	8478.771772	1.089127282	**7.78**
Contra Costa	2024	T6 Utility Class 5	Aggregate	Aggregate	Diesel	61.4376622	2497.702844	0.282389977	**8.84**
Contra Costa	2024	T6 Utility Class 6	Aggregate	Aggregate	Diesel	11.66025915	471.7432463	0.053150787	**8.88**
Contra Costa	2024	T6 Utility Class 7	Aggregate	Aggregate	Diesel	13.18262903	652.9749984	0.073148823	**8.93**
Contra Costa	2024	T6TS	Aggregate	Aggregate	Gasoline	739.4954007	38664.27392	8.107551767	**4.77**
Contra Costa	2024	T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	615.3730838	124105.7354	20.31564787	**6.11**
Contra Costa	2024	T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	553.9497358	148482.5375	23.88389085	**6.22**
Contra Costa	2024	T7 NOOS Class 8	Aggregate	Aggregate	Diesel	233.3387103	53953.65639	8.822907105	**6.12**
Contra Costa	2024	T7 Other Port Class	Aggregate	Aggregate	Diesel	64.35327591	11844.6454	1.992754645	**5.94**
Contra Costa	2024	T7 POAK Class 8	Aggregate	Aggregate	Diesel	413.773454	41046.78545	7.035015049	**5.83**
Contra Costa	2024	T7 Public Class 8	Aggregate	Aggregate	Diesel	459.443799	19740.81036	3.792262497	**5.21**
Contra Costa	2024	T7 Single Concrete/	Aggregate	Aggregate	Diesel	78.10888513	5448.988265	0.91939886	**5.93**
Contra Costa	2024	T7 Single Dump Clas	Aggregate	Aggregate	Diesel	519.1423122	30689.88356	5.299930401	**5.79**
Contra Costa	2024	T7 Single Other Clas	Aggregate	Aggregate	Diesel	600.0148762	30961.86439	5.253216684	**5.89**
Contra Costa	2024	T7 SWCV Class 8	Aggregate	Aggregate	Diesel	170.4292316	11053.99975	4.465909094	**2.48**
Contra Costa	2024	T7 Tractor Class 8	Aggregate	Aggregate	Diesel	1339.4093	101925.6182	16.68411595	**6.11**
Contra Costa	2024	T7 Utility Class 8	Aggregate	Aggregate	Diesel	44.35615304	2007.688351	0.345648717	**5.81**
Contra Costa	2024	T7IS	Aggregate	Aggregate	Gasoline	0.816073688	55.87226715	0.013779527	**4.05**
Contra Costa	2024	UBUS	Aggregate	Aggregate	Gasoline	102.4069604	5589.008616	0.90612729	**6.17**
Contra Costa	2024	UBUS	Aggregate	Aggregate	Diesel	211.7340781	21902.92773	2.74787936	**7.97**

On-road Mobile (Operational) Energy Usage

Note: Assumes that all vehicles that are generated as part of proposed project use gasoline as a fuel source (for simplicity), since the vast majority of vehicles generated by the project would use gasoline.

Unmitigated:

Step 1:

Therefore:

Average Daily VMT:

2,066 Source: CalEEMod

Step 2: Given:

Fleet Mix (CalEEMod Output)

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
56.17%	5.60%	17.96%	12.76%	2.38%	0.55%	0.71%	0.71%	0.05%	0.03%	2.58%	0.13%	0.34%

And:

Gasoline MPG Factors for each Vehicle Class - Year 2023 (EMFAC2021 Output)

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
29.51	24.81	23.84	19.41	9.42	8.41	N/A	N/A	4.73	6.17	41.28	10.22	4.42

Therefore:

Weighted Average MPG Factors

Gasoline: **26.1**

Step 3: **Therefore:**

79 daily gallons of gasoline

or

28,893 annual gallons of gasoline

Off-road (i.e. On-site) Mobile (Construction) Energy Usage

Note: For the sake of simplicity, and as a conservative estimation, it was assumed that all off-road vehicles use diesel fuel as an energy source.
Demolition, site preparation and grading off-road mobile vehicle on-site gallons of fuel are calculated below.

Given Factor:	**133.6**	**metric tons**	**CO2**	**(provided in CalEEMod Output File)**
Conversion Factor:	2204.6262	pounds	per metric ton	
Intermediate Result:	**294,438**	**pounds**	**CO2**	
Conversion Factor:	22.38	pounds	CO2 per 1 gallon of diesel fuel	Source: U.S. EIA, 2016
Final Result:	**13,156**	**gallons**	**diesel fuel**	http://www.eia.gov/tools/faqs/faq.cfm?id=307&t=11

Mitigated Onsite Scenario	Total CO2 (MT/yr) (provided in CalEEMod Output File)
Demolition	34.2300
Site Preparation	16.8606
Grading	82.4641

On-road Mobile (Construction) Energy Usage - Demolition

Note: Year 2022 MPG factors were derived for construction-releated energy consumption (for the sake of a conservative estimate).

Step 1:

Total Daily Worker Trips (CalEEMod Output)
15

Total Daily Hauler Trips (CalEEMod Output)
34

Worker Trip Length (miles) (CalEEMod Output)
10.8

Hauler Trip Length (miles) (CalEEMod Output)
20

Therefore:

Average Worker Daily VMT:
162

Average Vendor Daily VMT:
680

Step 2:

Given:

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

Assumed Fleet Mix for Vendors

Fleet Mix for Haulers (CalEEMod Output)

MHD	HHD
50%	50%

And:

MPG Factors for each Vehicle Class (from EMFAC2021) - Year 2023

Gasoline:

LDA	LDT1	LDT2
29.51	24.81	23.84

Diesel:

MHD	HHD
8.42	5.45

Therefore:

Weighted Average Worker (Gasoline) MPG Factor
26.92

Weighted Average Vendor (Diesel) MPG Factor
6.93

Step 3:

Therefore:
6 **Worker daily gallons of gasoline**

Therefore:
98 **Vendor daily gallons of diesel**

Step 4:

20 **# of Days (CalEEMod Output)**

Therefore:
120 **Total gallons of gasoline**

Therefore:
1,962 **Total gallons of diesel**

On-road Mobile (Construction) Energy Usage - Site Preparation

Note: Year 2022 MPG factors were derived for construction-releated energy consumption (for the sake of a conservative estimate).

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

18

Worker Trip Length (miles) (CalEEMod Output)

10.8

Therefore:

Average Worker Daily VMT:

194

Step 2: Given:

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2021) - Year 2023

LDA	LDT1	LDT2
29.51	24.81	23.84

Therefore:

Weighted Average Worker MPG Factor

26.92

Step 3: **Therefore:**

7 Worker daily gallons of gasoline

Step 4: 10 **# of Days (CalEEMod Output)**

Therefore:

Result: **72 Total gallons of gasoline**

On-road Mobile (Construction) Energy Usage - Grading

Note: Year 2022 MPG factors were derived for construction-releated energy consumption (for the sake of a conservative estimate).

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

20

Worker Trip Length (miles) (CalEEMod Output)

10.8

Therefore:

Average Worker Daily VMT:

216

Step 2: Given:

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2021) - Year 2023

LDA	LDT1	LDT2
29.51	24.81	23.84

Therefore:

Weighted Average Worker MPG Factor

26.92

Step 3: **Therefore:**

8 Worker daily gallons of gasoline

Step 4: 30 **# of Days (CalEEMod Output)**

Therefore:

Result: **241** **Total gallons of gasoline**

On-road Mobile (Construction) Energy Usage - Building Construction

Note: Year 2022 MPG factors were derived for construction-releated energy consumption (for the sake of a conservative estimate).

Step 1:

Total Daily Worker Trips (CalEEMod Output)
13

Total Daily Vendor Trips (CalEEMod Output)
4

Worker Trip Length (miles) (CalEEMod Output)
10.8

Vendor Trip Length (miles) (CalEEMod Output)
7.3

Therefore:

Average Worker Daily VMT:
140

Average Vendor Daily VMT:
29

Step 2:

Given:

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

Assumed Fleet Mix for Vendors

Fleet Mix for Workers (CalEEMod Output)

MHD	HHD
50%	50%

And:

MPG Factors for each Vehicle Class (from EMFAC2021) - Year 2023

Gasoline:

LDA	LDT1	LDT2
29.51	24.81	23.84

Diesel:

MHD	HHD
8.42	5.45

Therefore:

Weighted Average Worker (Gasoline) MPG Factor
26.92

Weighted Average Vendor (Diesel) MPG Factor
6.93

Step 3:

Therefore:
5 Worker daily gallons of gasoline

Therefore:
4 Vendor daily gallons of diesel

Step 4:

300 **# of Days (CalEEMod Output)**

Therefore:
1,565 Total gallons of gasoline

Therefore:
1,264 Total gallons of diesel

On-road Mobile (Construction) Energy Usage - Paving

Note: Year 2022 MPG factors were derived for construction-releated energy consumption (for the sake of a conservative estimate).

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

15

Worker Trip Length (miles) (CalEEMod Output)

10.8

Therefore:

Average Worker Daily VMT:

162

Step 2: Given:

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2021) - Year 2023

LDA	LDT1	LDT2
29.51	24.81	23.84

Therefore:

Weighted Average Worker MPG Factor

26.9

Step 3: **Therefore:**

6 Worker daily gallons of gasoline

Step 4: 20 **# of Days (CalEEMod Output)**

Therefore:

Result: **120** **Total gallons of gasoline**

On-road Mobile (Construction) Energy Usage - Architectural Coating

Note: Year 2022 MPG factors were derived for construction-releated energy consumption (for the sake of a conservative estimate).

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

3

Worker Trip Length (miles) (CalEEMod Output)

10.8

Therefore:

Average Worker Daily VMT:

32

Step 2: Given:

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (EMFAC2021 Output) - Year 2023

LDA	LDT1	LDT2
29.51	24.81	23.84

Therefore:

Weighted Average Worker MPG Factor

26.9

Step 3: **Therefore:**

1 Worker daily gallons of gasoline

Step 4: 20 **# of Days (CalEEMod Output)**

Therefore:

Result: **24** **Total gallons of gasoline**

Appendix D: Geotechnical Study

PROPOSED RESIDENTIAL DEVELOPMENT – SUBDIVISION 9597 (38 LOTS)
7590 AND 7650 LONE TREE WAY
BRENTWOOD, CALIFORNIA

GEOTECHNICAL EXPLORATION

SUBMITTED TO
Mr. Brian Kesler
SEECON Financial & Construction Co.
4021 Port Chicago Highway
Concord, CA 94524-4113

PREPARED BY
ENGEO Incorporated

March 24, 2022

PROJECT NO.
19435.000.002

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ENGEO
Expect Excellence

March 24, 2022

Project No.
19435.000.002

Mr. Brian Kesler
SEECON Financial & Construction Co.
4021 Port Chicago Highway
Concord, CA 94524-4113

Subject: Proposed Residential Development - Subdivision 9597 (38 Lots)
7590 and 7650 Lone Tree Way
Brentwood, California

GEOTECHNICAL EXPLORATION

Dear Mr. Kesler:

ENGEO prepared this geotechnical exploration report for the proposed residential development – Subdivision 9597 (38 lots), as outlined in our executed agreement dated January 26, 2022. We characterized the subsurface conditions at the site to develop our conclusions and provide design-level recommendations for the planned development.

It is our opinion from a geotechnical engineering viewpoint that the site is suitable for the proposed development, provided the conclusions and recommendations in this report are properly incorporated into the design and implemented during construction. The main geotechnical concern for the proposed site development is the presence of expansive soil, which is susceptible to significant volume changes from shrink and swell when subjected to varying moisture content. Other geotechnical matters addressed in this report include seismicity, earthwork, foundations, retaining walls, preliminary pavement design, underground utilities, and drainage.

Our experience and that of our profession clearly indicate that the risk of costly design, construction, and maintenance problems can be significantly lowered by retaining the design geotechnical engineering firm to review the project plans and specifications and provide geotechnical observation and testing services during construction.

If you have any questions or comments regarding this report, please call and we will be glad to discuss them with you.

Sincerely,
ENGEO Incorporated

Joshua Hoeflich

Bahareh Heidarzadeh, PhD, PE

Theodore P. Bayham, GE, CEG

REGISTERED PROFESSIONAL ENGINEER
THEODORE P. BAYHAM
No. 2480
GEOTECHNICAL
STATE OF CALIFORNIA

jh/bh/tpb/ar

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1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

ENGEO prepared this geotechnical exploration report for the proposed residential development – Subdivision 9597 (38 lots), as outlined in our executed agreement dated January 26, 2022. We characterized the subsurface conditions at the site to develop our conclusions and provide design-level recommendations for the planned development. Our scope of services has included:

- Review of available literature and geologic maps.
- Review of available geotechnical explorations.
- Performing subsurface field exploration.
- Analyzing the geotechnical field data.
- Reporting our findings and recommendations.
- Preparation of this Geotechnical Exploration report.

For our use, we received a draft Vesting Tentative Map prepared by RJA, dated February 25, 2022, and delivered electronically via email on March 18, 2022.

This report was prepared for the exclusive use of SEECON Financial & Construction Co. and their consultants for design of this project. If any changes are made in the character, design, or layout of the development, we must be contacted to review the conclusions and recommendations contained in this report to evaluate whether modifications are recommended. This document may not be reproduced in whole or in part by any means whatsoever, nor may it be quoted or excerpted without our express written consent.

1.2 LOCATION

The site encompasses approximately 16.3 acres, located north of Lone Tree Way and east of O'Hara Avenue in Brentwood, California (Figures 1 and 2). The site is bound to the north, west, and east by existing residences, to the east by fallow land, and to the south by Lone Tree Way. Vacant residential units and associated structures are in the southeastern and southwestern corners of the site. The remainder is currently open space.

1.3 PROJECT DESCRIPTION

Grading plans provided by RJA dated February 25, 2022, show the planned development to include 38 single-family residential lots with self-retaining drainage areas, interior subdivision roads, underground utilities, perimeter walls, and landscaping. The RJA grading plans show planned cuts and fills less than 1 foot and 5 feet, respectively.

Structural loads and other details related to the proposed house structures and site improvements have not been developed at this time. However, we understand that the proposed residential houses are anticipated to consist of one- and two-story wood-framed structures. Maximum wall loads have not been confirmed at this time; however, based on similar type housing developments, loads are anticipated to be relatively light.

2.0 FINDINGS

2.1 FIELD EXPLORATION

Our field exploration included drilling five borings at various locations on the site. We performed our field exploration between February 1, 2022, and February 2, 2022. The locations and elevations of our explorations are approximate and were estimated using coordinates from Google Earth and the RJA grading plans; they should be considered accurate only to the degree implied by the method used.

We observed drilling of five borings at the locations shown on the Site Plan, Figure 2. An ENGEO representative observed the drilling and logged the subsurface conditions at each location. We retained a track-mounted CME 75 drill rig and crew to advance the borings using 4-inch-diameter solid-flight auger methods. The borings were advanced to depths ranging from 19½ to 49½ feet below existing grade. We permitted and backfilled the borings in accordance with the requirements of Contra Costa County Environmental Health.

The standard penetration resistance blow counts were obtained by dropping a 140-pound hammer through a 30-inch free fall. The 2-inch O.D. split-spoon sampler was driven 18 inches and the number of blows was recorded for each 6 inches of penetration. In addition, 2.5-inch I.D. samples were obtained using a Modified California Sampler driven into the soil with the 140-pound hammer previously described. Unless otherwise indicated, the blows per foot recorded on the boring log represent the accumulated number of blows to drive the last 1 foot of penetration; the blow counts have not been converted using any correction factors. When sampler driving was difficult, penetration was recorded only as inches penetrated for 50 hammer blows.

The logs depict subsurface conditions at the exploration locations during the exploration; however, subsurface conditions may vary with time. The exploration logs are included in Appendix A.

2.2 SITE BACKGROUND

The residential structures located at 7590 and 7650 Lone Tree Way first appeared in aerials in 1949. Prior to 1980, most of the site was used as an orchard. The site has been fallow since 1980.

3.0 GEOLOGY AND SEISMICITY

3.1 GEOLOGY

The site is in the eastern part of the Coast Ranges Province. The Coast Ranges Province has a complex geological history. Active faulting found in the Coast Ranges has developed in response to the plate boundary between the North American and Pacific Crustal Plates, along which the North American Plate is being moved progressively southeastward relative to the Pacific Plate. Local faults such as the Concord and Greenville faults, which are located to the west and south, respectively, currently accommodate a portion of this motion within the crust adjacent to the plate boundary.

Graymer (1997) maps the site as Pleistocene to Holocene-age eolian and alluvial deposits. The first soil type mapped at the site is classified as a Holocene-age basin deposits (Qhb). Qhb is described as very fine silty clay to clay deposits that occupy flat areas in the Brentwood dune field

where the basin deposits bury older eroded sand dunes (Qds). The second soil mapped at the site is classified as Pleistocene to Holocene dune sand (Qds). Qds is described as a fine-grained, well-sorted, well-drained, eolian deposit.

3.2 FAULTING AND SEISMICITY

The Bay Area contains numerous active faults. The San Andreas Fault represents an active crustal plate boundary that is expected to produce the maximum probable earthquake for the region. The San Andreas Fault has existed since middle Miocene time. The site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone and no known surface expression of active faults is believed to exist within the site. There are no earthquake-induced site effects known to have occurred at the project site in historic earthquake events. Fault rupture through the site, therefore, is not anticipated.

Numerous small earthquakes occur every year in the San Francisco Bay Region, and larger earthquakes have been recorded and can be expected to occur in the future. Figure 4 shows the approximate locations of these faults and significant historic earthquakes recorded within the San Francisco Bay Region. To determine nearby active faults that are capable of generating strong seismic ground-shaking at the site, we utilized the USGS 2008 National Seismic Hazard Mapping Tool*.

TABLE 3.2-1: Nearby Active Faults

SOURCE	CLOSEST DISTANCE (miles)	MOMENT MAGNITUDE (M_W)	FAULT MECHANISM	DIRECTION FROM SITE
Great Valley 5 Pittsburg – Kirby Hills	8.2	6.7	Reverse	West
Greenville Connected	8.6	7.0	Strike Slip	South
Green Valley Connected	15.9	6.8	Strike Slip	West
Mount Diablo Thrust	16.2	6.7	Thrust	Southwest
Calaveras	19.2	6.9	Strike Slip	South
Great Valley 4b – Gordon Valley	25.8	6.8	Thrust	East
Hayward – Rogers Creek	28.0	6.8	Strike Slip	West
West Napa	32.3	6.7	Strike Slip	Northwest

*USGS Earthquake Hazards Program 2008 National Seismic Hazard Maps – Source Parameters.

The 2014 Working Group on California Earthquake Probabilities evaluated the regional seismicity of the Bay Area and published their results as The Uniform California Earthquake Rupture Forecast, Version 3 (UCERF 3). The Working Group periodically attempts to summarize seismic risk in California with time-dependent earthquake rupture forecasts, in which the probabilities of future events are conditioned upon the dates of previous earthquakes. According to UCERF 3, there is an aggregated 72 percent probability of a 6.7 M_W (Moment Magnitude) or greater earthquake on an active Bay Area fault over the next 30 years. The probability of a 6.7 M_W or greater earthquake on the Hayward and San Andreas faults are 14 and 6 percent, respectively, over the next 30 years.

3.3 SURFACE CONDITIONS

A topographic map provided by RJA shows existing grades at the site are relatively flat and range from approximate elevations of 74 to 82 feet (NAVD 88 datum), sloping gently from west to east. We observed the following site features during our reconnaissance.

- The site is covered by moderate growth of grasses and weeds.
- Two abandoned homes and associated structures are in the southeastern and southwestern corner of the site.
- Construction debris is in the northeastern corner of the site.

3.4 SUBSURFACE CONDITIONS

3.4.1 Artificial Fill

Local artificial fills are present at the abandoned building locations in the southeastern and southwestern corners of the site. Boring 1-B1 in the southeastern corner of the site encountered fill to a depth of ½ foot below the existing ground surface. The fill consisted of gravel with silt and sand.

3.4.2 Alluvial Deposits

Borings within the site encountered near-surface alluvial soil consisting of clayey sand to sandy clay underlain by sand, sandy silt, and clay to the terminal depth of the borings at approximately 49½ feet. Alluvial deposits consist of unconsolidated sand, silt, and clay with varying sand and gravel content. Generally, the upper 1 to 3 feet of these deposits appear soft and compressible and increase in stiffness with greater depth. Laboratory test results indicate that typically these deposits range from low to high plasticity and are considered moderately to highly expansive.

Consult the Site Plan (Figure 2) and exploration logs for specific subsurface conditions at each location. We include our exploration logs in Appendix A, in addition to previous explorations logs and data. ENGEO's logs contain the soil type, color, consistency, and visual classification in general accordance with the Unified Soil Classification System. The logs graphically depict the subsurface conditions encountered at the time of the exploration.

3.5 GROUNDWATER CONDITIONS

We observed groundwater in Boring 1-B5 at a depth of 27 feet below existing grade. We also identified groundwater as shallow as 14 feet below ground surface (bgs) in borings performed at nearby Prewett Ranch project in 2005. Based on this data, we assume that free groundwater may be at approximately 20 feet bgs; we have assumed this for evaluation of seismic considerations in this report. It should be noted that fluctuations in the level of groundwater may occur due to variations in rainfall, irrigation practice, and other factors not evident at the time measurements were made.

3.6 LABORATORY TESTING

We performed laboratory tests on selected soil samples to evaluate their engineering properties. For this project, we performed moisture content, dry density, unconfined compression, plasticity index, expansion index, hydrometer, and soil corrosion potential testing. Moisture contents and dry densities are recorded on the boring logs in Appendix A, and other laboratory results are included in Appendix B.

4.0 CONCLUSIONS

It is our opinion from a geotechnical engineering viewpoint, that the site is suitable for the proposed development, provided the conclusions and recommendations in this report are properly incorporated into the design and implemented during construction.

The main geotechnical concern for the proposed site development is the presence of expansive soil, which is susceptible to significant volume changes (swell and compression) when subjected to varying moisture contents. Other geotechnical matters addressed in this report include seismicity, earthwork, foundations, retaining walls, preliminary pavement design, underground utilities, and drainage.

4.1 EXPANSIVE SOIL

The expansive soil deposits are a significant geotechnical concern in this region. The near-surface soil samples within the site exhibit Plasticity Indexes (PI) up to 42. The site soil has a moderate to high potential for shrink-swell behavior.

Expansive soil shrinks and swells because of moisture changes. This can cause heaving and cracking of slabs-on-grade, pavements, and foundations. Building damage due to volume changes associated with expansive soil can be reduced by: (1) selectively placing the higher on-site expansive materials in the deeper fill areas (generally at depths below 10 feet of finished grades), or placing these higher expansive on-site materials outside of areas of the proposed house structures and site improvements (such as landscape areas); (2) performing proper moisture conditioning and compaction of fill materials within selected ranges to reduce their swell potential; and (3) using a structurally reinforced “rigid” mats or post-tensioned mats designed to resist the deflections associated with the soil expansion. Foundation criteria are further discussed in the "Foundation Design” section of this report. Post-tensioned mat foundations are the preferred foundation system for the residential structures. Design criteria for this foundation type are presented in Section 6.0.

Successful performance of structures on expansive soil requires special attention during construction. It is imperative that exposed soil be kept moist prior to placement of concrete for foundation construction. It can be difficult to re-moisturize clayey soil without excavation, moisture conditioning, and recompaction.

4.2 SEISMIC HAZARDS

Potential seismic hazards resulting from a nearby moderate to major earthquake can generally be classified as primary and secondary. The primary effect is ground rupture, also called surface faulting. The common secondary seismic hazards include ground shaking, ground lurching, soil liquefaction and lateral spreading. These hazards are discussed in the following sections. Based on topographic and lithologic data, the risk from regional subsidence or uplift, tsunamis or seiches is considered low to unlikely at the site.

4.2.1 Ground Rupture

Since there are no known active faults crossing the property and the site is not located within an Earthquake Fault Special Study Zone, it is our opinion that ground rupture is unlikely at the subject property.

4.2.2 Ground Shaking

An earthquake of moderate to high magnitude generated within the San Francisco Bay region could cause considerable ground shaking at the site, like that which has occurred in the past. To mitigate the shaking effects, structures should be designed using sound engineering judgment and the 2019 California Building Code (CBC) requirements, as a minimum. Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead-and-live loads. The code-prescribed lateral forces are generally considered to be substantially smaller than the comparable forces that would be associated with a major earthquake. Therefore, structures should be able to: (1) resist minor earthquakes without damage; (2) resist moderate earthquakes without structural damage but with some nonstructural damage; and (3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Conformance to the current building code recommendations does not constitute any kind of guarantee that significant structural damage would not occur in the event of a maximum magnitude earthquake; however, it is reasonable to expect that a well-designed and well-constructed structure will not collapse or cause loss of life in a major earthquake (SEAOC, 1996).

4.2.3 Liquefaction

Soil liquefaction results from loss of strength during cyclic loading, such as imposed by earthquakes. Soil most susceptible to liquefaction is clean, loose, saturated, and uniformly graded, fine-grained sand. Groundwater was encountered at 27 feet below ground surface in one of our borings. We encountered no loose material below the GWT at the site. For this reason and based upon our engineering judgment, it is our opinion that the potential for liquefaction at the site is low to nil during seismic shaking.

4.2.4 Dynamic Densification

Dynamic densification settlement of loose granular soil above the groundwater table, also known as dry sand settlement, can cause ground surface settlement with earthquake-induced vibrations. In Boring 1-B4 we observed near-surface, loose, poorly graded granular material. This material was only observed in Boring 1-B4 and is not continuous throughout the site.

We evaluated dynamic densification settlement for the sand layers above the groundwater table in Boring 1-B4 using the methods by Tokimatsu and Seed (1987). For our analyses, we used a PGAm of 0.61g and a M_w of 6.6. At this location, it is estimated that dynamic densification may result in some local settlement up to several inches. However, because loose to medium dense sand layers were not observed in other borings, we opine that the risk of dynamic densification at site would be generally considered to be low.

4.2.5 Ground Lurching

Ground lurching is a result of the rolling motion imparted to the ground surface during energy released by an earthquake. Such rolling motion can cause ground cracks to form in weaker soil. The potential for the formation of these cracks is considered greater at contacts between deep alluvium and bedrock. Such an occurrence is possible at the site as in other locations in the Bay Area region, but based on the site location, it is our opinion that the offset is expected to be minor to nil. We provide recommendations for foundation and pavement design in this report that are intended to reduce the potential for adverse impacts from lurch cracking.

4.2.6 Flooding

Based on site elevation and distance from water bodies, potential for tsunami inundation is not expected at the subject site.

4.3 SOIL CORROSION POTENTIAL

During our exploration, we obtained representative soil samples at 3 and 3½ feet bgs and submitted it to a qualified analytical lab for determination of Redox, pH, resistivity, chloride, and sulfate. The results are included in Appendix B and summarized in the table below.

TABLE 4.3-1: Corrosivity Test Results

SAMPLE LOCATION	DEPTH (feet)	PH[1]	RESISTIVITY[1] (OHMS-CM)	CHLORIDE[2] (MG/KG)	SULFATE [3](MG/KG)
1-B2	3 - 3½	7.34	6,700	N.D.	N.D.
1-B4	3½ - 4	7.32	5,600	N.D.	N.D.

[1] CA DOT 643
[2] CA DOT 422
[3] CA DOT 417

The 2019 CBC references the 2014 American Concrete Institute Manual, ACI 318-14, Section 19.3.1 for concrete durability requirements. ACI Table 19.3.1.1 provides the following exposure categories and classes, and Table 19.3.2.1 provides requirements for concrete in contact with soil based upon the exposure class.

TABLE 4.3-2: ACI Table 19.3.1.1: Exposure Categories and Classes

CATEGORY	SEVERITY	CLASS	CONDITION	
F Freezing and thawing	Not Applicable	F0	Concrete not exposed to freezing-and-thawing cycles	
	Moderate	F1	Concrete exposed to freezing-and-thawing cycles and occasional exposure to moisture	
	Severe	F2	Concrete exposed to freezing-and-thawing cycles and in continuous contact with moisture	
	Very Severe	F3	Concrete exposed to freezing-and-thawing cycles and in continuous contact with moisture and exposed to deicing chemicals	
			WATER- SOLUBLE SULFATE IN SOIL % BY WEIGHT*	**DISSOLVED SULFATE IN WATER MG/KG (PPM)****
S Sulfate	Not applicable	S0	$SO_4 < 0.10$	$SO_4 < 150$
	Moderate	S1	$0.10 \leq SO_4 < 0.20$	$150 \leq SO_4 \leq 1{,}500$ seawater
	Severe	S2	$0.20 \leq SO_4 \leq 2.00$	$1{,}500 \leq SO_4 \leq 10{,}000$
	Very severe	S3	$SO_4 > 2.00$	$SO_4 > 10{,}000$
P Requiring low permeability	Not applicable	P0	In contact with water where low permeability is not required.	
	Required	P1	In contact with water where low permeability is required.	
C Corrosion protection of reinforcement	Not applicable	C0	Concrete dry or protected from moisture	
	Moderate	C1	Concrete exposed to moisture but not to external sources of chlorides	
	Severe	C2	Concrete exposed to moisture and an external source of chlorides from deicing chemicals, salt, brackish water, seawater, or spray from these sources	

* Percent sulfate by mass in soil determined by ASTM C1580
** Concentration of dissolved sulfates in water in ppm determined by ASTM D516 or ASTM D4130

It is recommended that post-grading corrosivity soil samples be tested for foundation and improvement corrosivity design considerations. For preliminary design purposes, we recommend that Type II cement having a minimum compressive strength of 2,500 psi and maximum water cement ratio of 0.50 for foundation concrete; however, Structural Engineer requirements for strength design may result in more stringent concrete specifications.

5.0 EARTHWORK RECOMMENDATIONS

All grading and development plans should be coordinated with the Geotechnical Engineer to modify the plans to mitigate any known soil and geologic hazards, as necessary. We recommend notification at least 48 hours prior to grading to coordinate scheduling with the grading contractor. Grading operations shall be observed and tested by the Geotechnical Engineer's field representatives.

5.1 GENERAL SITE CLEARING

Areas to be developed should be cleared of all surface and subsurface deleterious materials, including existing building foundations, slabs, buried utility and irrigation lines, pavements, debris, and designated trees, shrubs, and associated roots. Clean and backfill excavations extending below the planned finished site grades with suitable material compacted to the recommendations presented in Section 5.5. ENGEO should be retained to observe and test all backfilling.

Following clearing, the site should be stripped to remove surface organic materials. Strip organics from the ground surface to a depth of at least 2 to 3 inches below the surface. Remove stripping's from the site or, if considered suitable by the landscape architect and owner, use them in landscape fill. It may also be feasible to mulch organics in place, depending on the amount and type of vegetation present at the time of grading as well as the proposed mulching method. If desired, ENGEO can evaluate site vegetation at the time of grading to determine the feasibility of mulching organics in place.

5.2 SITE PREPARATION

After the site has been properly cleared and stripped, scarify the original surface at least 12 inches, in-place moisture condition, and compact in accordance with the recommendations presented below in the "Fill Placement" section prior to replacing and re-compacting as engineered fill. The upper approximately 12 inches of site soil was observed to be loose; therefore, the depth at which scarification takes place should be founded below the loose soil on site. If dry desiccated soil extends below a depth of 12 inches at the commencement of grading, subexcavation may be required as well. The compaction requirements for existing soil used for fill placement are the same as those for engineered fill, as described in a subsequent section of this report.

5.3 OVER-OPTIMUM SOIL MOISTURE CONDITIONS

The contractor should anticipate encountering excessively over-optimum (wet) soil moisture conditions during winter or spring grading, or during or following periods of rain. Wet soil can make proper compaction difficult. Wet soil conditions may be mitigated by:

1. Frequent spreading and mixing during warm, dry weather, or
2. Mixing with drier materials.

5.4 ACCEPTABLE FILL

Except for organic-laden soil, we anticipate engineered fill to consist of the on-site soil materials in connection with the planned grading and site improvements. Organic laden soil contains more than 3 percent organic content above typical background levels in soil.

Imported fill materials should meet the above requirements and have a Plasticity Index less than 12 and at least 20 percent passing the No. 200 sieve. Allow ENGEO to sample and test proposed imported fill materials at least 72 hours prior to delivery to the site.

5.5 FILL COMPACTION

5.5.1 Grading in Structural Areas

The following compaction control requirements should be generally applied to engineered fills.

TABLE 5.5.1-1: Compaction Control Requirements

DESCRIPTION	MATERIALS	REQUIRED RELATIVE COMPACTION (%)	MINIMUM MOISTURE CONTENT (PERCENTAGE POINTS ABOVE OPTIMUM)
Fills derived from on-site materials	Expansive*	87 to 92	+4
Import “Select” fills	Low-expansive*	90	+2

*Expansive - PI greater than 20
*Low-expansive - PI less than 20

Maximum dry densities and moisture contents should be determined in accordance with ASTM D-1557. Plasticity Index determinations, and possibly supplemental swell test data, should be made as a part of grading control. Scarify the grading area to 12 inches in depth, and moisture condition and recompact the exposed surface area in place to provide adequate bonding with the initial fill lift. Place all fills in thin lifts. Avoid lift thicknesses exceeding 8 inches or the compaction equipment penetration depth, whichever is less.

5.6 UNDERGROUND UTILITY BACKFILL

The contractor is responsible for conducting all trenching and shoring in accordance with CALOSHA requirements. Project consultants involved in utility design should specify pipe-bedding materials. Exercise care where utility trenches are located beside foundation areas. Locate utility trenches constructed parallel to foundations entirely above a plane extending down from the lower edge of the footing at an angle of 45 degrees. Provide utility companies and Landscape Architects with this information. Gravity utilities across the area should be designed with sufficient slope gradient to account for potential settlements and be at a minimum of 0.5 percent.

Construct utility trenches in paved areas in accordance with City of Brentwood requirements; however, try to avoid compaction of native trench backfill by jetting. Notify owner if a conflict between City or other agency requirements and the recommendations contained in this report are observed to provide a resolution prior to submitting bids.

Use well-graded import or native material less than ¾ inch in maximum dimension for pipe zone backfill (i.e., material beneath and immediately surrounding the pipe). Use native soil for trench zone backfill (i.e., material placed between the pipe zone backfill and the ground surface). Compact backfill in accordance with the recommendations provided above for engineered fill. Use fine- to medium-grained sand or a well-graded mixture of sand and gravel for pipe zone backfill import material. Avoid using this material within 2 feet of finish grades. In general, avoid using uniformly graded gravel for pipe or trench zone backfill due to the potential for migration of: (1) soil into the relatively large void spaces present in this type of material; and (2) water along trenches backfilled with this type of material. Where utility trenches cross underneath buildings, we recommend that a plug be placed within the trench backfill to help prevent the normally granular bedding materials from acting as a conduit for water to enter beneath the building. The plug should be constructed using sand cement slurry (minimum 28-day compressive strength of 500 psi) or relatively impermeable native soil for pipe bedding and backfill. We recommend that the plug extend for a distance of at least 3 feet in each direction from the point where the utility enters the building perimeter.

Jetting of backfill is not an acceptable means of compaction. We may allow thicker loose lift thicknesses based on acceptable density test results, where increased effort is applied to rocky fill or for the first lift of fill over pipe bedding. Refer to the Utilities section for more details regarding requirements for utility construction.

5.7 SITE DRAINAGE

The project Civil Engineer is responsible for designing surface drainage improvements. Regarding geotechnical engineering issues, we recommend that finish grades be sloped away from buildings and pavements to the maximum extent practical to reduce the potentially damaging effects of expansive soil. The latest California Building Code Section 1804.4 specifies minimum slopes of 5 percent away from foundations. Where lot lines or surface improvements restrict meeting this slope requirement, we recommend that specific drainage requirements be developed. As a minimum, we recommend the following.

1. Discharge roof downspouts into closed conduits and direct away from foundations to appropriate drainage devices and designated self-retaining drainage areas.

2. Consider the use of rear lot surface drainage collection systems to reduce overland surface drainage from back to front of lot.

3. Do not allow water to pond near foundations, pavements, or exterior flatwork. Designated self-retaining drainage areas should be located a minimum of 5 feet away from foundations, pavements, or exterior flatwork.

6.0 FOUNDATION RECOMMENDATIONS

6.1 POST-TENSIONED MAT FOUNDATION DESIGN CRITERIA

The following recommendations reflect the latest California Building Code that requires PT criteria per the Post-Tensioning Institute “Design of Post-Tensioned Slabs-on-Ground” Third Edition, including appropriate addenda.

TABLE 6.1-1: Post-Tensioned Mat Foundation Design Criteria

CONDITION	CENTER LIFT	EDGE LIFT
Edge Moisture Variation Distance, e_m (feet)	8.5	4.4
Differential Soil Movement, y_m (inches)	0.5	1.7

Post-tensioned mats should be designed for an average allowable soil pressure of 1,000 or 1,500 psf for concentrated loads. These values may be increased by one-third when considering total loads, including wind or seismic loads. A minimum mat thickness of 10 inches is recommended. The actual thickness of the mat should be determined by the project Structural Engineer. The perimeter should be thickened by at least 2 inches.

When buildings are constructed with concrete mat foundations, water vapor from beneath the concrete mat may migrate through the slab and into the building. To mitigate the effects of water migration, we recommend that the concrete be underlain by a vapor retarder that meets current ASTM E1745 Class A requirements for water vapor presence, tensile strength, and puncture resistance. All joints and penetrations of the vapor retarder medium should be sealed.

We recommend that we review any updated foundation plans to verify conformance with our recommendations, and to provide supplemental recommendations as needed. Additionally, we recommend that we be retained to observe the pre-pour moisture conditions to check that our report recommendations have been followed.

6.2 MOISTURE VAPOR REDUCTION

When buildings are constructed with concrete slab-on-grade, such as post-tensioned mats, water vapor from beneath the slab will migrate through the slab and into the building. This water vapor can be reduced but not stopped. Vapor transmission can negatively affect floor coverings and lead to increased moisture within a building. When water vapor migrating through the slab would be undesirable, we recommend the following to reduce, but not stop, water vapor transmission upward through the slab-on-grade.

1. Install a vapor retarder membrane directly beneath the slab. Seal the vapor retarder at all seams and pipe penetrations. Vapor retarders shall conform to Class A vapor retarder in accordance with ASTM E 1745-09 “Standard Specification for Plastic Water Vapor Retarders used in Contact with Soil or Granular Fill under Concrete Slabs.”

2. Concrete shall have a concrete water-cement ratio of no more than 0.50.

3. Provide inspection and testing during concrete placement to check that the proper concrete and water cement ratio are used.

The structural engineer should be consulted as to the use of a layer of clean sand or pea gravel (less than 5 percent passing the U.S. Standard No. 200 Sieve) placed on top of the vapor retarder membrane to assist in concrete curing.

6.3 SECONDARY SLABS-ON-GRADE

This section provides guidelines for secondary slabs such as walkways, driveways, and steps. Secondary slabs-on-grade should be constructed structurally independent of the foundation system. This allows slab movement to occur with a minimum of foundation distress. Where slab-on-grade construction is anticipated, care must be exercised in attaining a near-saturation condition of the subgrade soil before concrete placement.

The Structural Engineer should design slab reinforcement. The site soil has moderate to high expansion potential; therefore, cracking of conventional slabs should be expected in the future. As a minimum requirement, reinforce slabs-on-grade to control cracking. Provide frequent control joints to reduce the cracking. In our experience, welded wire mesh is not sufficient to control slab cracking. Reinforce slabs-on-grade with No. 3 bars spaced 18 inches on center each way, as a minimum.

Provide a minimum section of 4 inches of concrete over 4 inches of aggregate base. Compact the aggregate base to at least 90 percent relative compaction (ASTM D1557). Thicken flatwork edges to at least 2 inches to help control moisture variations in the subgrade and place rebar within the middle third of the slab to help control the width and offset of cracks. Construct control and construction joints in accordance with current Portland Cement Association Guidelines.

7.0 2019 CBC SEISMIC DESIGN PARAMETERS

The 2019 CBC utilizes design criteria set forth in the 2010 ASCE 7 Standard. Based on the subsurface conditions encountered, we characterized the site as Site Class D in accordance with the 2019 CBC. We provide the 2019 CBC seismic design parameters in Table 7.0-1 below, which include design spectral response acceleration parameters based on the mapped Risk Targeted Maximum Considered Earthquake (MCER) spectral response acceleration parameters.

TABLE 7.0-1: 2019 CBC Seismic Design Parameters, Latitude: 37.96273° Longitude: -121.71080°

PARAMETER	VALUE
Site Class	D*
Mapped MCE_R Spectral Response Acceleration at Short Periods, S_S (g)	1.359
Mapped MCE_R Spectral Response Acceleration at 1-second Period, S_1 (g)	0.476
Site Coefficient, F_a	1.0
Site Coefficient, F_v	1.824*
MCE_R Spectral Response Acceleration at Short Periods, S_{MS}	1.359
MCE_R Spectral Response Acceleration at 1-second Period, S_{M1}	0.868*
Design Spectral Response Acceleration at Short Periods, S_{DS}	0.906
Design Spectral Response Acceleration at 1-second Period, S_{D1}	0.579*
Mapped MCE Geometric Mean (MCE_G) Peak Ground Acceleration, PGA (g)	0.558
Site Coefficient, F_{PGA}	1.1
MCE_G peak ground acceleration adjusted for site class effects, PGA_M	0.614

*The design engineer may consider exception(s) of Section 11.4.8 of ASCE 7-16 and use these values provided the value of the seismic response coefficient C_s is determined by Eq. (12.8-2) of ASCE 7-16 for values of $T \leq 1.5T_S$ and taken as equal to 1.5 times the value computed in accordance with Eq. (12.8-3) of ASCE 7-16 for $1.5T_s < T \leq T_L$.

Considering the proposed single-family residential development, we estimate the fundamental periods of the proposed structures to be less than $1.5T_S$. Therefore, the structural engineer may consider exception(s) of Section 11.4.8 of ASCE 7-16 as noted in the footnote of Table 7.0-1.

We recommend that we collaborate with the structural engineer of record to further evaluate the effects of taking the exceptions on the structural design and identify the need for performing a site-specific seismic hazard analysis. We can provide a scope for site-specific seismic hazard analysis and ground motion study under separate cover, if needed.

8.0 RETAINING WALLS

8.1 LATERAL SOIL PRESSURES

Proposed site retaining walls, where included, should be designed to resist lateral earth pressures from adjoining natural materials and/or backfill materials. Site retaining walls should be designed with the active pressures provided below. Below-grade building walls and walls located within 10 feet of proposed buildings, retaining the building, should utilize at-rest pressures.

TABLE 8.1-1: Active Lateral Equivalent Fluid Pressures

BACKFILL SLOPE CONDITION	ACTIVE PRESSURE (pcf)	AT-REST PRESSURE (pcf)	AT-REST + HYDROSTATIC PRESSURE (pcf)	SEISMIC INCREMENT (plf)
Level	30	47	83	$13H^2$
4:1	35	59	88	
3:1	37	62	89	
2:1	43	66	91	

- Equivalent fluid pressures do not include increases due to surcharge loading or hydrostatic pressures.
- Walls should be designed for the more critical loading condition of (1) at-rest or (2) active plus seismic increment.
- H equals the height of the wall in feet.
- Resultant of the seismic increment can be applied at ⅓ H, measured from the bottom of the wall.

To resist lateral loads, assume 250 pcf passive pressure acting on foundations provided that the area in front of the retaining wall is level for a minimum distance of 10 feet or three times the depth of foundation, whichever is greater. The footings should be embedded at least 18 inches below the lowest pad grade. Design retaining wall footings using an allowable bearing pressure of 2,000 pounds per square foot (psf) in native firm materials or engineered fill. For sliding resistance, an allowable Coefficient of Friction of 0.30 can be used.

Alternatively, walls may be supported utilizing drilled piers. An allowable skin friction value of 500 psf may be used for pier design to support vertical loads. A minimum depth of embedment of piers shall be at least 8 feet below grade. An equivalent fluid weight of 250 pounds per cubic foot (pcf) acting on 1.5 times the pier diameter may be used to evaluate passive resistance; the upper 24 inches of embedment should be neglected in passive resistance computations.

Incorporate appropriate safety factors against overturning and sliding into the design calculations. Consult the Geotechnical Engineer on design values where surcharge loads, such as from automobiles, are expected or where a downhill slope exists below a proposed wall. If retaining walls greater than 6 feet are proposed, Table 8.1-1 should be modified to incorporate seismic forces.

8.2 RETAINING WALL FOUNDATIONS

Site retaining walls and sound walls can be supported on continuous footings or drilled piers.

8.2.1 Continuous Footings

If shallow continuous footings are used, they should be designed using an allowable bearing pressure of 2,500 pounds per square foot (psf) in firm native materials or fill. For short-term seismic loading, the bearing capacity can be increased by one-third. The footings should be at least 24 inches below lowest adjacent grades. If footings are located within 5 feet from nearby tops of slopes or on sloping ground, the footing embedment should be increased to achieve at least 8 horizontal feet to the nearest free slope face.

8.2.2 Drilled Pier Footings

The proposed retaining walls or sound walls may be founded on cast-in-place, drilled piers. The minimum diameter for the piers should be 12 inches, and these should be spaced no closer than 3 pier diameters apart. An allowable skin friction of 500 psf may be used in design; skin friction should be disregarded in the upper 2 feet of embedment. The allowable skin friction may be increased by one-third when considering seismic or wind loads.

Lateral loads may be resisted by passive pressures generated by the soil below a depth of 2 feet of the pier. Resistance to lateral loads can be obtained from passive resistance against the drilled pier face. For passive resistance, an equivalent fluid weight of 250 pcf acting on 2 times the pier diameter may be used for the portions below a depth of 2 feet. For piers on or near slopes, the portion of the pier within 8 feet from the face of the slope should be neglected when computing passive resistance. The passive resistance may be increased by one-third to include short-term wind or seismic effects.

“Mushrooming” at the top of the piers should be avoided to prevent unnecessary uplift forces from being applied to the piers and forming the upper portion of piers or other alternatives to removing excess concrete at the top of the piers may be necessary. Additionally, to further reduce panel movement, we recommend the panels be underlain with a degradable material such as “surevoid,” or equivalent material, at least 2 inches thick between the bottom of the panels and the supporting soil. The use of a void forming material will reduce potential vertical panel movement.

Pier-drilling operations and concrete placement should be coordinated such that pier holes are left open a minimum amount of time. Pier holes should not be allowed to desiccate visibly before placing concrete. Depressions at the tops of the piers resulting from drilling operations or from any other cause should be backfilled to prevent ponding. To minimize potential future pier settlements, loose soil “slough” should be removed from the bottom of pier holes prior to placing concrete. If water collects in the pier shaft, it should be pumped out prior to the placement of concrete. Concrete should be placed by means of a tremie pipe or similar device to avoid concrete contamination by soil dislodging from the pier shaft.

We recommend that the excavation of piers be performed under our direct observation to establish that the piers are founded in suitable materials. Due to the potential for caving, each shaft may need to be cased. If groundwater is encountered, remove it from excavations prior to concrete placement. If groundwater cannot be removed from excavations prior to concrete placement, then we recommend that concrete be placed by tremie pipe. The concrete should be

tremied to the bottom of the hole keeping the tremie pipe below the surface of the concrete to avoid entrapment of water in the concrete. As concrete is poured, water is displaced out of the hole. Drilling into bedrock may be difficult and require drill rigs capable of drilling the bedrock materials described in previous sections. The use of rock barrels/buckets may be needed to maintain plumbness and integrity of pier holes.

8.3 RETAINING WALL DRAINAGE

Construct either graded rock drains or geosynthetic drainage composites behind the retaining walls to reduce hydrostatic lateral forces. For rock drain construction, we recommend two types of rock drain alternatives.

1. A minimum 12-inch-thick layer of Class 2 Permeable Filter Material (Caltrans Specification 68-1.025) placed directly behind the wall, or

2. A minimum 12-inch-thick layer of washed, crushed rock with 100 percent passing the ¾-inch sieve and less than 5 percent passing the No. 4 sieve. Envelop rock in a minimum 6-ounce, nonwoven geotextile filter fabric.

ENGEO should review and approve geosynthetic composite drainage systems prior to use. Backfill behind retaining walls should be placed and compacted in accordance with Section 6.6. Use light compaction equipment within 5 feet of the wall face. If heavy compaction equipment is used, the walls should be temporarily braced to avoid excessive wall movement.

9.0 PAVEMENT DESIGN

Because surface soil varies across the site, we opine an R-value of 5 to be applicable for preliminary design. Using estimated traffic indexes for various pavement loading requirements, we developed the following recommended preliminary pavement sections using Procedure 608 of the Caltrans Highway Design Manual (including the asphalt factor of safety), presented in the table below.

TABLE 9.0-1: Recommended Asphalt Concrete Pavement Sections

TRAFFIC INDEX	SECTION	
	ASPHALT CONCRETE (inches)	CLASS 2 AGGREGATE BASE (inches)
5	3	10
6	3½	13
7	4	16

The actual design sections should be based on R-value tests performed on production subgrade material samples recovered at the time of grading. Pavement materials and construction should comply with the specifications and requirements of the Standard Specifications by the State of California Division of Highways, City of Brentwood, and the following minimum requirements.

- Scarify all pavement subgrades to a minimum depth of 12 inches below finished subgrade elevation; moisture condition to 3 percent above optimum and compact to at least 90 percent relative compaction and/or in accordance with City requirements. Where non-expansive or non-cohesive subgrades are present, increase the minimum relative compaction to 95 percent.

- Provide stable subgrade soil. Avoid pumping conditions at the time of aggregate base rock material placement and compaction.

- Make adequate provisions to avoid subgrade soil and aggregate base rock material saturation.

- Aggregate base rock materials should meet current Caltrans specifications for Class 2 aggregate base rock. Compact to at least 95 percent of maximum dry density at above optimum moisture content, as determined by ASTM D1557.

- Asphalt paving materials should meet current Caltrans specifications for asphalt concrete.

- Extend all concrete curbs separating pavement and irrigated landscaped areas into the subgrade and below the bottom of adjacent aggregate base rock materials.

10.0 STORMWATER BIORETENTION AREAS

If bioretention areas are implemented, we recommend that, when practical, they be planned a minimum of 5 feet away from structural site improvements, such as buildings, streets, retaining walls, and sidewalks/driveways. When this is not practical, bioretention areas located within 5 feet of structural site improvements can either:

1. Be constructed with structural side walls capable of withstanding the loads from the adjacent improvements, or

2. Incorporate filter material compacted to between 85 and 90 percent relative compaction (ASTM D1557, latest edition) and a waterproofing system designed to reduce the potential for moisture transmission into the subgrade soil beneath the adjacent improvement.

In addition, one of the following options should be followed.

1. We recommend that bioretention design incorporate a waterproofing system lining the bioswale excavation and a subdrain, or other storm drain system, to collect and convey water to an approved outlet. The waterproofing system should cover the bioretention area excavation in such a manner as to reduce the potential for moisture transmission beneath the adjacent improvements.

2. Alternatively, and with some risk of movement of adjacent improvements, if infiltration is desired, we recommend the perimeter of the bioretention areas be lined with an HDPE tree root barrier that extends at least 1 foot below the bottom of the bioretention areas/infiltration trenches.

Site improvements located adjacent to bioretention areas that are underlain by base rock, sand, or other imported granular materials, should be designed with a deepened edge that extends to the bottom of the imported material underlying the improvement.

Where adjacent site improvements include buildings greater than three stories, streets steeper than 3 percent, or design elements subject to lateral loads (such as from impact or traffic patterns), additional design considerations may be recommended. If the surface of the bioretention area is depressed, the slope gradient should follow the slope guidelines described in earlier sections of

this document. In addition, although not recommended, if trees are to be planted within bioretention areas, HDPE Tree Boxes that extend below the bottom of the bioretention system should be installed to reduce potential impact to subdrain systems that may be part of the bioretention area design. For this condition, the waterproofing system should be connected to the HPDE Tree Box with a waterproof seal.

Given the nature of bioretention systems and possible proximity to improvements, we recommend ENGEO be retained to review design plans and provide testing and observation services during the installation of linings, compaction of the filter material, and connection of designed drains.

It should be noted that the contractor is responsible for conducting all excavation and shoring in a manner that does not cause damage to adjacent improvements during construction and future maintenance of the bioretention areas. As with any excavation adjacent to improvements, the contractor should reduce the exposure time such that the improvements are not detrimentally impacted. We recommend that these items be incorporated into the landscaping plans.

11.0 CONSTRUCTION MONITORING

Our experience and that of our profession clearly indicate that the risk of costly design, construction, and maintenance problems can be significantly lowered by retaining the design geotechnical engineering firm to:

1. Review the final grading and foundation plans and specifications prior to construction to evaluate whether our recommendations have been implemented, and to provide additional or modified recommendations, as needed. This also allows us to check if any changes have occurred in the nature, design, or location of the proposed improvements and provides the opportunity to prepare a written response with updated recommendations.

2. Perform construction monitoring to check the validity of the assumptions we made to prepare this report. Earthwork operations should be performed under the observation of our representative to check that the site is properly prepared, the selected fill materials are satisfactory, and that placement and compaction of the fills has been performed in accordance with our recommendations and the project specifications. Sufficient notification to us prior to earthwork is important.

If we are not retained to perform the services described above, then we are not responsible for any party's interpretation of our report (and subsequent addenda, letters, and verbal discussions).

12.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS

This report presents geotechnical recommendations for design of the improvements discussed in Section 1.3 for the 7560 and 7590 Lone Tree Way project. If changes occur in the nature or design of the project, we should be allowed to review this report and provide additional recommendations, if any. It is the responsibility of the owner to transmit the information and recommendations of this report to the appropriate organizations or people involved in design of the project, including but not limited to developers, owners, buyers, architects, engineers, and designers. The conclusions and recommendations contained in this report are solely professional opinions and are valid for a period of no more than 2 years from the date of report issuance.

We strived to perform our professional services in accordance with generally accepted principles and practices currently employed in the area; there is no warranty, express or implied. There are risks of earth movement and property damages inherent in building on or with earth materials. We are unable to eliminate all risks; therefore, we are unable to guarantee or warrant the results of our services.

This report is based upon field and other conditions discovered at the time of report preparation. We developed this report with limited subsurface exploration data. We assumed that our subsurface exploration data is representative of the actual subsurface conditions across the site. Considering possible underground variability of soil, rock, stockpiled material, and groundwater, additional costs may be required to complete the project. We recommend that the owner establish a contingency fund to cover such costs. If unexpected conditions are encountered, notify ENGEO immediately to review these conditions and provide additional and/or modified recommendations, as necessary.

Our services did not include excavation sloping or shoring, soil volume change factors, flood potential, or a geohazard exploration. In addition, our geotechnical exploration did not include work to determine the existence of possible hazardous materials. If any hazardous materials are encountered during construction, then notify the proper regulatory officials immediately.

This document must not be subject to unauthorized reuse, that is, reusing without written authorization of ENGEO. Such authorization is essential because it requires ENGEO to evaluate the document's applicability given new circumstances, not the least of which is passage of time.

Actual field or other conditions will necessitate clarifications, adjustments, modifications, or other changes to ENGEO's documents. Therefore, ENGEO must be engaged to prepare the necessary clarifications, adjustments, modifications, or other changes before construction activities commence or further activity proceeds. If ENGEO's scope of services does not include on-site construction observation, or if other persons or entities are retained to provide such services, ENGEO cannot be held responsible for any or all claims arising from or resulting from the performance of such services by other persons or entities, and from any or all claims arising from or resulting from clarifications, adjustments, modifications, discrepancies or other changes necessary to reflect changed field or other conditions.

We determined the lines designating the interface between layers on the exploration logs using visual observations. The transition between the materials may be abrupt or gradual. The exploration logs contain information concerning samples recovered, indications of the presence of various materials such as clay, sand, silt, rock, existing fill, etc., and observations of groundwater encountered. The field logs also contain our interpretation of the subsurface conditions between sample locations. Therefore, the logs contain both factual and interpretative information. Our recommendations are based on the contents of the final logs, which represent our interpretation of the field logs.

SELECTED REFERENCES

California Building Code, 2019.

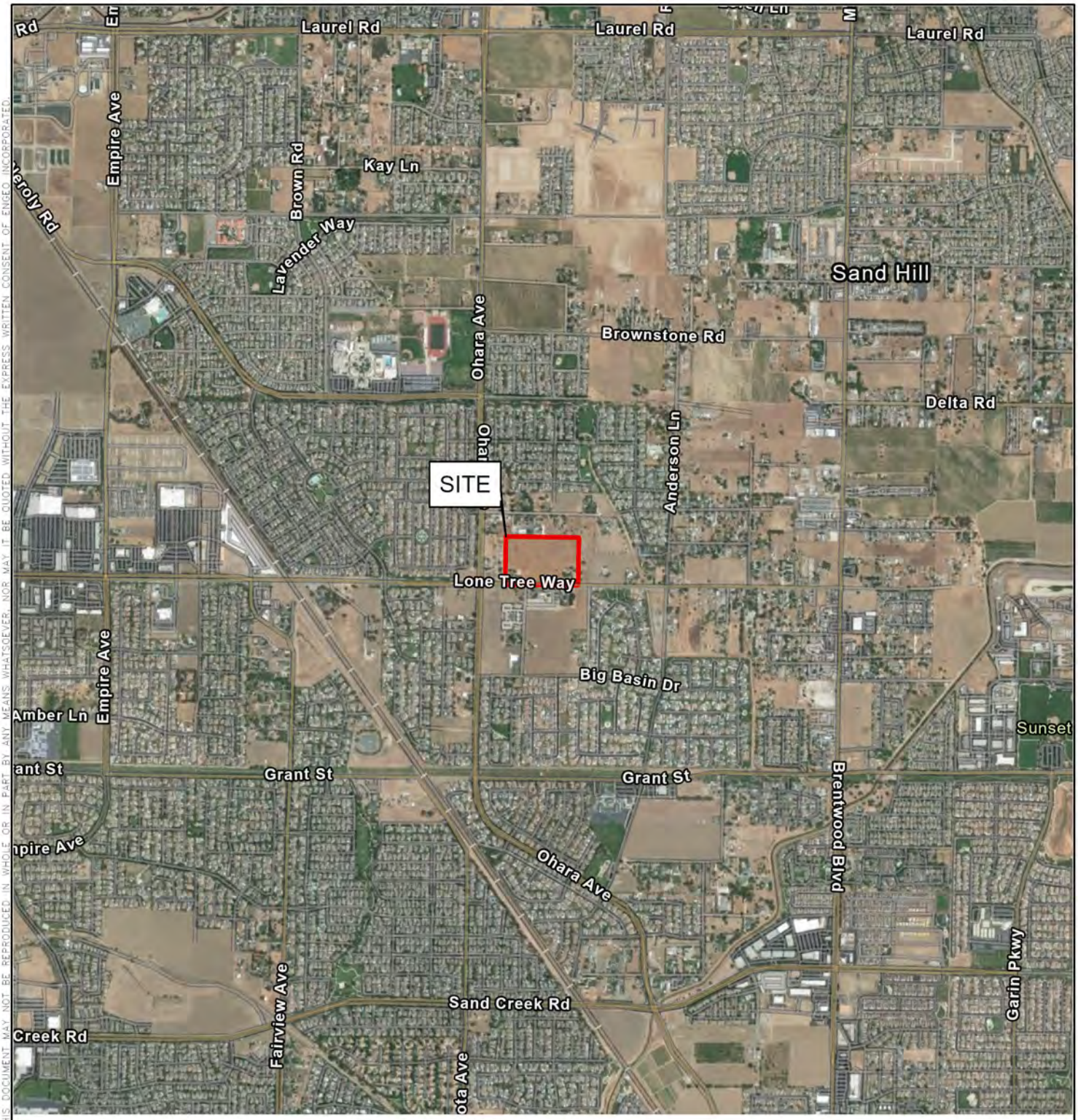
ENGEO, April 28, 2005, Geotechnical Exploration, ±112.4 Acre Prewett Ranch, Brentwood, California, Project No. 6320.4.001.01.

Helley, E.J. and Graymer, R.W., 1997, Quaternary Geology of Contra Costa County, and Surrounding Parts of Alameda, Marin, Sonoma, Solano, Sacramento, and San Joaquin Counties, California: a digital database, U.S. Geological Survey, Open-File Report OF-97-98, 1:100,000.

Tokimatsu, K and Bolton, H.S., 1987, Evaluation of Settlements in Sands Due to Earthquake Shaking, Journal of Geotechnical Engineering, Vol. 113, Issue 8.

FIGURES

FIGURE 1: Vicinity Map
FIGURE 2: Site Plan
FIGURE 3: Regional Geologic Map
FIGURE 4: Regional Faulting and Seismicity Map



N

0 1,000 2,000
FEET

BASEMAP SOURCE: GOOGLE EARTH MAPPING SERVICE 2021

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VICINITY MAP
7590 AND 7650 LONE TREE WAY
BRENTWOOD, CALIFORNIA

PROJECT NO. :	19435.000.002
SCALE:	AS SHOWN
DRAWN BY: NLK	CHECKED BY: TPB

FIGURE NO. 1

PATH: G:\DRAFTING\PROJECTS_18000 TO 19999\19435\19435000001\GEOTECH\19435000001-GEX.APRX
LAYOUT: VICINITY USER: NLAMOTTEKERR

ORIGINAL FIGURE PRINTED IN COLOR

N

0 100 200

FEET

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

PROJECT SITE

BORING (ENGEO, 2022)

BASEMAP SOURCE: GOOGLE EARTH MAPPING SERVICE 2021 AND RUGGERI, JENSEN AND AZAR 2022

ENGEO
Expect Excellence

SITE PLAN
7590 AND 7650 LONE TREE WAY
BRENTWOOD, CALIFORNIA

PROJECT NO. :	19435.000.002
SCALE:	AS SHOWN
DRAWN BY: NLK	CHECKED BY: TPB

FIGURE NO. 2

PATH: G:\DRAFTING\PROJECTS_18000 TO 19999\19435\19435000001\GEOTECH\19435000001-GEX.APRX
LAYOUT: SITE PLAN USER: NLAMOTTEKERR

ORIGINAL FIGURE PRINTED IN COLOR

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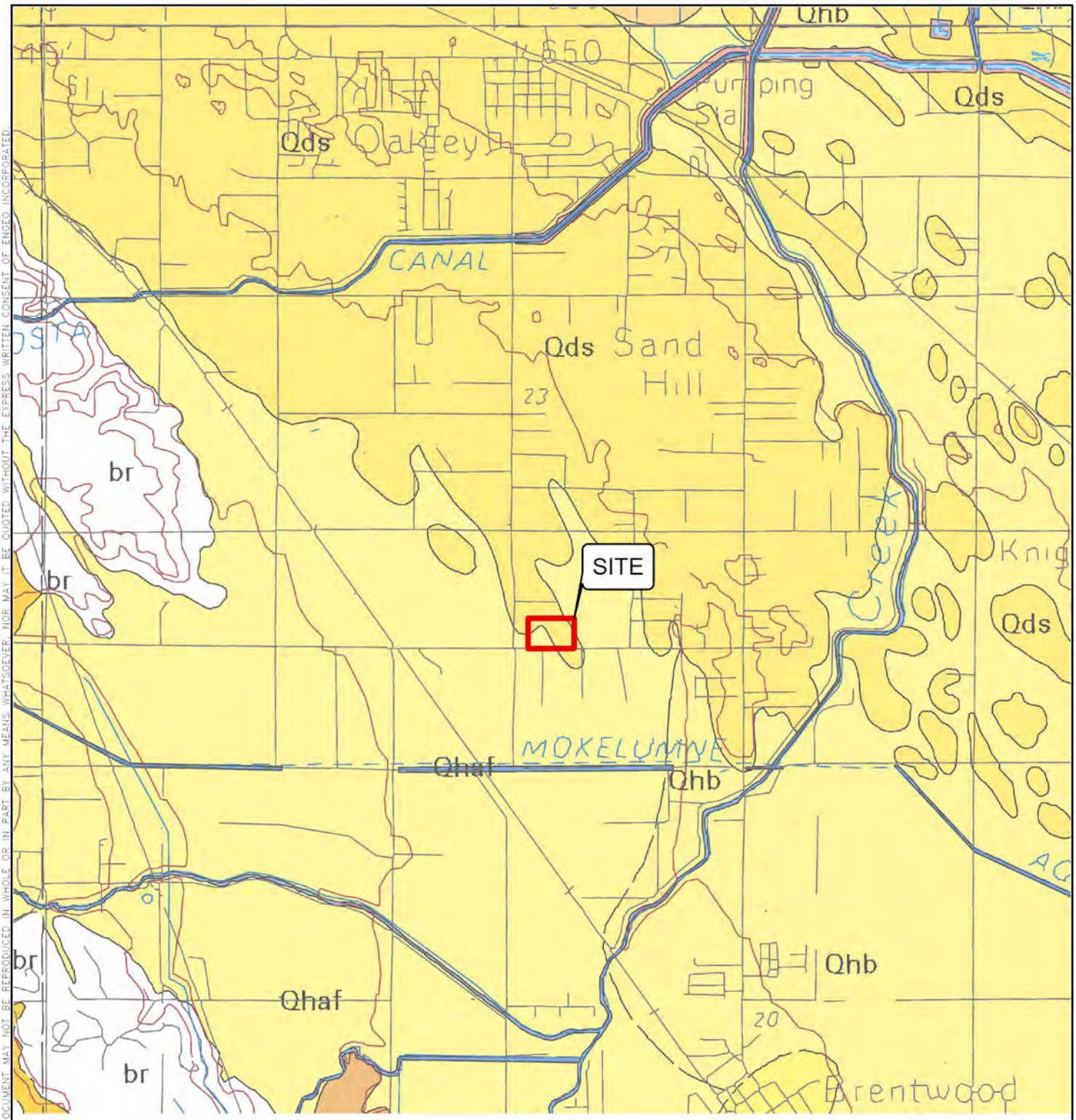

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

Qhaf	ALLUVIAL FAN & FLUVIAL DEPOSITS (HOLOCENE)
Qhb	BASIN DEPOSITS (HOLOCENE)
Qds	DUNE SAND (PLEISTOCENE AND HOLOCENE)
br	UNDEFINED BEDROCK

N

0 2,000 4,000

FEET

BASEMAP SOURCE: GRAYMER 1997

ENGEO
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REGIONAL GEOLOGIC MAP
7590 AND 7650 LONE TREE WAY
BRENTWOOD, CALIFORNIA

PROJECT NO. : 19435.000.002		FIGURE NO. 3
SCALE: AS SHOWN		
DRAWN BY: NLK	CHECKED BY: TPB	

PATH: G:\DRAFTING\PROJECTS_18000 TO 19999\19435\19435000001\GEOTECH\19435000001-GEX.APRX
LAYOUT: GEOLOGIC USER: NLAMOTTEKERR

ORIGINAL FIGURE PRINTED IN COLOR

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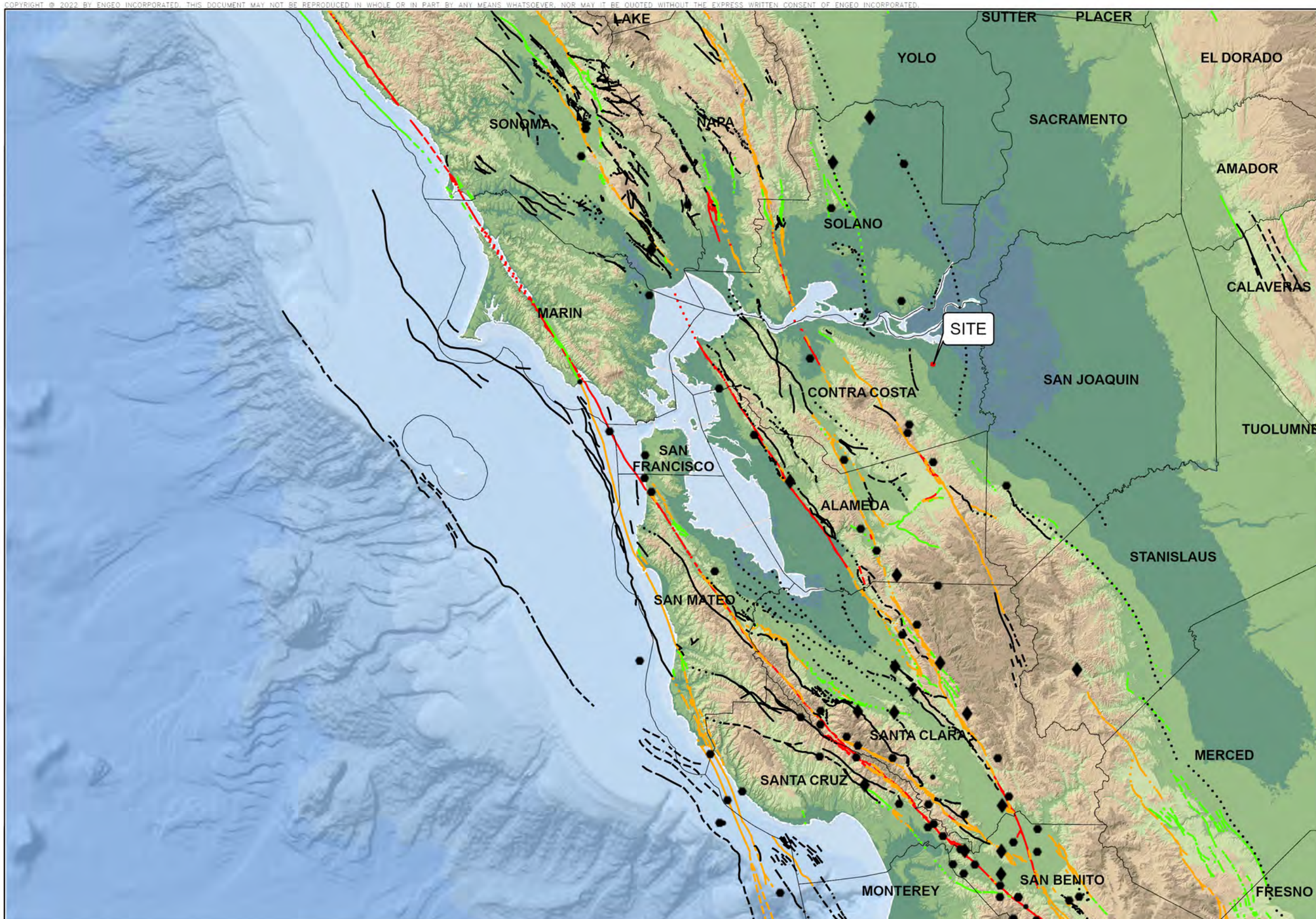

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

EARTHQUAKE

- MAGNITUDE 7+
- MAGNITUDE 6-7
- MAGNITUDE 5-6

QUATERNARY FAULTS

BASED ON TIME OF MOST RECENT SURFACE DEFORMATION

- HISTORICAL (<150 YEARS), WELL CONSTRAINED LOCATION
- HISTORICAL (<150 YEARS), MODERATELY CONSTRAINED LOCATION
- HISTORICAL (<150 YEARS), INFERRED LOCATION
- LATEST QUATERNARY (<15,000 YEARS), WELL CONSTRAINED LOCATION
- LATEST QUATERNARY (<15,000 YEARS), MODERATELY CONSTRAINED LOCATION
- LATEST QUATERNARY (<15,000 YEARS), INFERRED LOCATION
- LATE QUATERNARY (<130,000 YEARS), WELL CONSTRAINED LOCATION
- LATE QUATERNARY (<130,000 YEARS), MODERATELY CONSTRAINED LOCATION
- LATE QUATERNARY (<130,000 YEARS), INFERRED LOCATION
- UNDIFFERENTIATED QUATERNARY(<1.6 MILLION YEARS), WELL CONSTRAINED LOCATION
- UNDIFFERENTIATED QUATERNARY(<1.6 MILLION YEARS), MODERATELY CONSTRAINED LOCATION
- UNDIFFERENTIATED QUATERNARY(<1.6 MILLION YEARS), INFERRED LOCATION
- GREAT VALLEY FAULT ZONE

BASE MAP SOURCE
ESRI, GEBCO, DELORME, NATURALVUE
COLOR HILLSHADE IMAGE BASED ON THE NATIONAL ELEVATION DATA SET (NED) AT 30 METER RESOLUTION
U.S.G.S. QUATERNARY FAULT DATABASE, 2018
U.S.G.S. HISTORIC EARTHQUAKE DATABASE (1800-PRESENT)

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REGIONAL FAULTING AND SEISMICITY
7590 AND 7650 LONE TREE WAY
BRENTWOOD, CALIFORNIA

PROJECT NO. :	19435.000.002
SCALE:	AS SHOWN
DRAWN BY: NLK	CHECKED BY: TPB

FIGURE NO. 4

PATH: G:\DRAFTING\PROJECTS_18000 TO 19999\19435\19435000001\GEOTECH\19435000001-GEX.APRX
LAYOUT: FAULT&SEISMICITY USER: NLAMOTTEKERR

ORIGINAL FIGURE PRINTED IN COLOR

APPENDIX A

KET TO BORING LOGS
EXPLORATION LOGS

KEY TO BORING LOGS

MAJOR TYPES			DESCRIPTION
O@YM N>VMYD%NAĀ @DS ĀMNĀ#[Y% [YSĀ@ĀLY#'SĀSYMVNMĀ#[Y%Āa=22 DNQN	VMYQNS L@MNĀ#[Y%Ā[YS\ O@YM NĀ\MYO#D@% D ĀSYMVNMĀ#[Y% %@!Ā1ĀDNQNĀ D]N	OSNY%ĀMYQNS ĀRD#[SN Ā #[Y%ĀZ_Ā\D%N	VRĀ>ĀR)-Ā7*4;);Ā7*4<)-/Ā+*Ā7*4)<->/46;Ā'5W:&*)/ V"Ā>Ā'++*-KĀ7*4;);Ā7*4<)-/Ā+*Ā7*4)<->/46;Ā'5W:&*)/
		VMYQNS ĀRD#[Ā@QNM ĀĀĀ

LOG OF BORING 1-B1

ENGEO Expect Excellence

LATITUDE: 37.961803 LONGITUDE: -121.712302

Geotechnical Exploration
7590/7650 Lone Tree Way
Brentwood, CA
19435.000.002

DATE DRILLED: 2/2/2022
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (NAVD 88): Approx. 81 ft.

LOGGED / REVIEWED BY: JH /
DRILLING CONTRACTOR: Geo-Ex Subsurface
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			WELL GRADED GRAVEL WITH SILT AND SAND (GW-GM), brown, dry, angular, [FILL]												
	80		FAT CLAY WITH SAND (CH), very dark brown, very stiff to hard, moist			11					12.42	113.9	1400.1 1000*	4.5*	UU PP+TV
			SILTY SAND (SM), yellowish red to reddish yellow, medium dense, moist												
5						37									
	75														
						11									
			SILT WITH SAND (ML), yellowish red to reddish yellow, moist, low plasticity												
10															
	70					21									
15															
	65					37								>4.5*	PP
20															

LOG OF BORING 1-B1

ENGEO Expect Excellence

LATITUDE: 37.961803 LONGITUDE: -121.712302

Geotechnical Exploration
7590/7650 Lone Tree Way
Brentwood, CA
19435.000.002

DATE DRILLED: 2/2/2022
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (NAVD 88): Approx. 81 ft.

LOGGED / REVIEWED BY: JH /
DRILLING CONTRACTOR: Geo-Ex Subsurface
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
	60		LEAN CLAY WITH SAND (CL), yellowish red, hard, dry, low plasticity			20								>4.5*	PP
			FAT CLAY WITH SAND (CH), yellowish red, hard, moist												
			Boring terminated at 21 1/2 feet below ground surface, groundwater not observed. Boring backfilled with cement grout.												

LOG OF BORING 1-B2

ENGEO Expect Excellence

LATITUDE: 37.961696 LONGITUDE: -121.7099205

Geotechnical Exploration
7590/7650 Lone Tree Way
Brentwood, CA
19435.000.002

DATE DRILLED: 2/1/2022
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (NAVD 88): Approx. 78 ft.

LOGGED / REVIEWED BY: JH /
DRILLING CONTRACTOR: Geo-Ex Subsurface
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			SILTY SAND (SM), dark brown, medium stiff to stiff, moist, low plasticity			6	19	17	2	31	12.99	72.56	853 500*	3*	UU TV + PP
	75		SANDY LEAN CLAY (CL), reddish brown, hard, dry, low plasticity			20								>4.5*	PP
5						60								>4.5*	PP
			SILTY SAND (SM), yellowish red to red, medium dense, dry			29									
	70														
10						16									
	65														
15			SANDY SILT (ML), yellowish red to reddish yellow, medium dense, moist			18									
	60														
20															

LOG OF BORING 1-B2

ENGEO Expect Excellence

LATITUDE: 37.961696 LONGITUDE: -121.7099205

Geotechnical Exploration
7590/7650 Lone Tree Way
Brentwood, CA
19435.000.002

DATE DRILLED: 2/1/2022
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (NAVD 88): Approx. 78 ft.

LOGGED / REVIEWED BY: JH /
DRILLING CONTRACTOR: Geo-Ex Subsurface
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			SANDY SILT (ML), yellowish red to reddish yellow, medium dense, moist			31					18.2	103		>4.5*	PP
			SANDY LEAN CLAY (CL), red, hard, moist, low to medium plasticity												
			Boring terminated at 21 1/2 feet below ground surface, groundwater not observed. Boring backfilled with cement grout.												

LOG OF BORING 1-B3

ENGEO Expect Excellence

LATITUDE: 37.9631617 LONGITUDE: -121.7092621

Geotechnical Exploration
7590/7650 Lone Tree Way
Brentwood, CA
19435.000.002

DATE DRILLED: 2/1/2022
HOLE DEPTH: Approx. 19½ ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (NAVD 88): Approx. 75 ft.

LOGGED / REVIEWED BY: JH /
DRILLING CONTRACTOR: Geo-Ex Subsurface
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			LEAN CLAY (CL), brown, hard, moist, carbonates, trace fine-grained sand												
						37	62	20	42					>4.5*	PP
			LEAN CLAY WITH SAND (CL), yellowish red, hard, moist												
5	70					17								>4.5*	PP
			FAT CLAY (CH), yellowish red, hard, moist, carbonates												
						29								>4.5*	PP
			CLAYEY SAND (SC), yellowish red to red, medium dense, moist												
						32									
10	65					9				16	3.1	104.7			
						22									
15	60														
			LEAN CLAY WITH SAND (CL), yellowish red, hard, moist												
						35								>4.5*	PP
			Boring terminated at 19 1/2 feet below ground surface, groundwater not observed. Boring backfilled with cement grout.												

LOG OF BORING 1-B4

ENGEO Expect Excellence

LATITUDE: 37.9631712 LONGITUDE: -121.712477

Geotechnical Exploration
7590/7650 Lone Tree Way
Brentwood, CA
19435.000.002

DATE DRILLED: 2/2/2022
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (NAVD 88): Approx. 82 ft.

LOGGED / REVIEWED BY: JH /
DRILLING CONTRACTOR: Geo-Ex Subsurface
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			CLAYEY SAND (SC), dark brown, stiff to very stiff, moist, medium plasticity, rootletts												
	80					10	25	7	18	35			700*	3.0*	TV + PP
			Dark yellowish brown, hard, dry			28								>4.5*	PP
5			FAT CLAY (CH), yellowish brown, hard, dry			31								>4.5*	PP
			CLAYEY SAND (SC), yellowish brown, loose, moist												
	75					9									
			SILTY SAND (SM), yellowish brown to reddish yellow, loose, moist												
10						13									
	70					7									
			POORLY GRADED SAND (SP), yellowish brown to reddish yellow, medium dense, moist												
15						29				3	2.7	99.5			
	65														
			CLAYEY SAND (SC), dark yellowish brown, loose, moist												
20															

LOG OF BORING 1-B4

LATITUDE: 37.9631712 LONGITUDE: -121.712477

Geotechnical Exploration
7590/7650 Lone Tree Way
Brentwood, CA
19435.000.002

DATE DRILLED: 2/2/2022
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (NAVD 88): Approx. 82 ft.

LOGGED / REVIEWED BY: JH /
DRILLING CONTRACTOR: Geo-Ex Subsurface
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			CLAYEY SAND (SC), dark yellowish brown, loose, moist			4									
			Boring terminated at 21 1/2 feet below ground surface, groundwater not observed. Boring backfilled with cement grout.												

LOG OF BORING 1-B5

ENGEO Expect Excellence

LATITUDE: 37.962574 LONGITUDE: -121.7107832

Geotechnical Exploration
7590/7650 Lone Tree Way
Brentwood, CA
19435.000.002

DATE DRILLED: 2/1/2022
HOLE DEPTH: Approx. 49½ ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (NAVD 88): Approx. 79 ft.

LOGGED / REVIEWED BY: JH /
DRILLING CONTRACTOR: Geo-Ex Subsurface
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			FAT CLAY (CH), dark brown to very dark brown, very stiff, moist, grass and rootletts												
						24							2440*	3.5*	TV + PP
			SANDY LEAN CLAY (CL), brown, hard, dry, medium plasticity, fine-grained sand, rootlets												
	75					50	43	19	24					>4.5*	PP
5															
						42								>4.5*	PP
			LEAN CLAY (CL), brown, hard, moist, trace fine-grained sand to medium-grained sand			49								>4.5*	PP
	70														
			SILTY SAND (SM), yellowish red to red, medium dense, moist												
10						30									
	65														
15			SILTY SAND (SM), yellowish red to red, loose, moist, non-plastic plasticity			10									
	60														
20															

LOG OF BORING 1-B5

ENGEO Expect Excellence

LATITUDE: 37.962574 LONGITUDE: -121.7107832

Geotechnical Exploration
7590/7650 Lone Tree Way
Brentwood, CA
19435.000.002

DATE DRILLED: 2/1/2022
HOLE DEPTH: Approx. 49½ ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (NAVD 88): Approx. 79 ft.

LOGGED / REVIEWED BY: JH /
DRILLING CONTRACTOR: Geo-Ex Subsurface
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			LEAN CLAY WITH SAND (CL), light brown to brown, hard, moist			40					16.7	113.6		>4.5*	PP
			FAT CLAY WITH SILT (CH), yellowish red, stiff to very stiff, moist, medium to high plasticity												
	55														
25						24								2.5*	PP
					▽										
	50														
30						32							2800*	3.5*	TV + PP
	45														
35			FAT CLAY (CH), yellowish red, hard, moist, high plasticity, carbonates			61							5000*	4.5*	TV + PP
	40														
40															

LOG OF BORING 1-B5

LATITUDE: 37.962574 LONGITUDE: -121.7107832

Geotechnical Exploration
7590/7650 Lone Tree Way
Brentwood, CA
19435.000.002

DATE DRILLED: 2/1/2022
HOLE DEPTH: Approx. 49½ ft.
HOLE DIAMETER: 4.0 in.
SURF ELEV (NAVD 88): Approx. 79 ft.

LOGGED / REVIEWED BY: JH /
DRILLING CONTRACTOR: Geo-Ex Subsurface
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Elevation in Feet	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			FAT CLAY (CH), yellowish red, hard, moist, high plasticity, carbonates			32								>4.5*	PP
	35		LEAN CLAY WITH SAND (CL), yellowish red to red, hard, low to medium plasticity												
45						65								>4.5* >4.5*	PP PP
			FAT CLAY (CH), yellowish red, hard, moist, carbonates			28									
	30					26								>4.5*	PP
			Boring terminated at 49 1/2 feet below ground surface, groundwater observed at 27 feet below ground surface. Boring backfilled with cement grout.												

APPENDIX B

LABORATORY TEST DATA

Moisture Density Determination Report
Liquid and Plastic Limits Test Report
Unconfined Compression Test
Particle Size Distribution Report
Analytical Results of Soil Corrosion

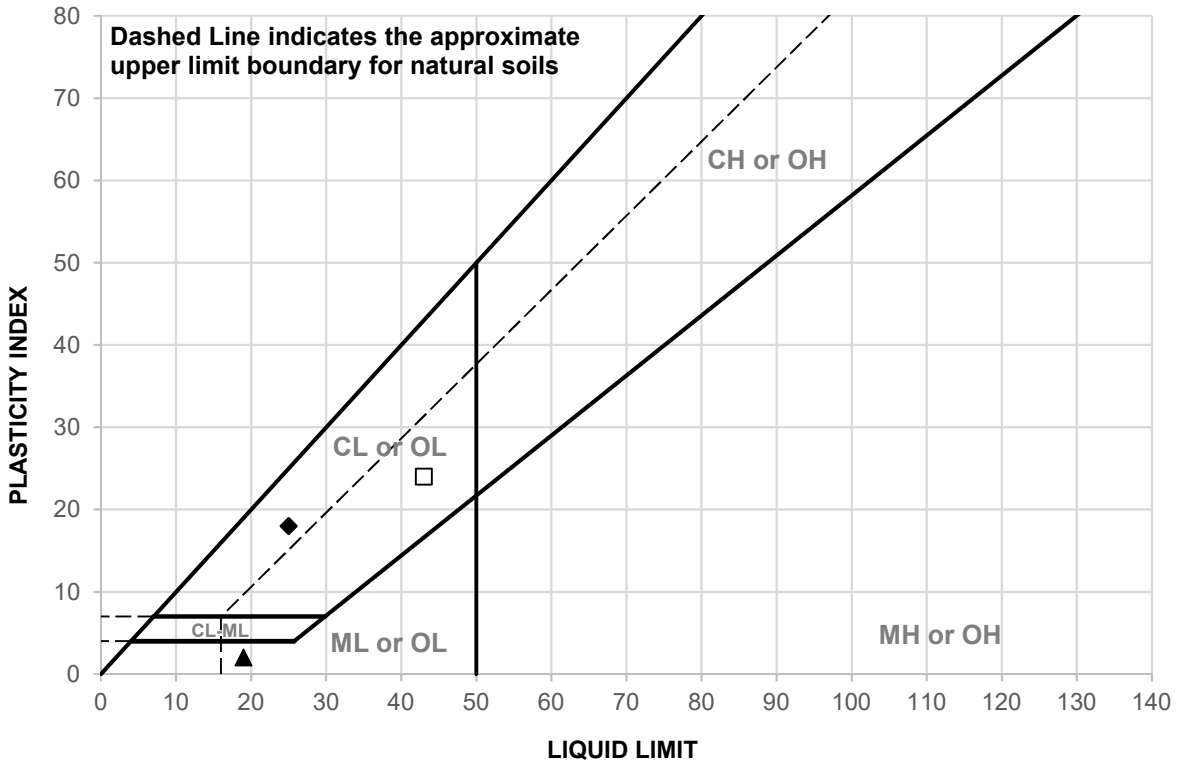
MOISTURE-DENSITY DETERMINATION REPORT
ASTM D7263

SAMPLE ID	1-B2	1-B3	1-B4	1-B5				
DEPTH (ft.)	20.5-21	10.5-11	16-16.5	21-21.5				
METHOD A OR B	B	B	B	B				
MOISTURE CONTENT (%)	18.2	3.1	2.7	16.7				
DRY DENSITY (pcf)	103.0	104.7	99.5	113.6				

ENGEO
Expect Excellence

CLIENT: SEECON Financial & Construction Co.
PROJECT NAME: 7590 and 7650 Lone Tree Way Geotechncial
PROJECT NO: 19435.000.002
PROJECT LOCATION: Brentwood, CA
REPORT DATE: 2/8/2022
TESTED BY: M. Quasem
REVIEWED BY: W. Miller

LIQUID AND PLASTIC LIMITS TEST REPORT
ASTM D4318



	SAMPLE ID	DEPTH	MATERIAL DESCRIPTION	LL	PL	PI
▲	1-B2	1.5-2	See Exploration Logs	19	17	2
◆	1-B4	1.5-2	See Exploration Logs	25	7	18
□	1-B5	3.5-4	See Exploration Logs	43	19	24

	SAMPLE ID	TEST METHOD	REMARKS
▲	1-B2	PI: ASTM D4318, Wet Method	
◆	1-B4	PI: ASTM D4318, Wet Method	
□	1-B5	PI: ASTM D4318, Wet Method	

ENGEO
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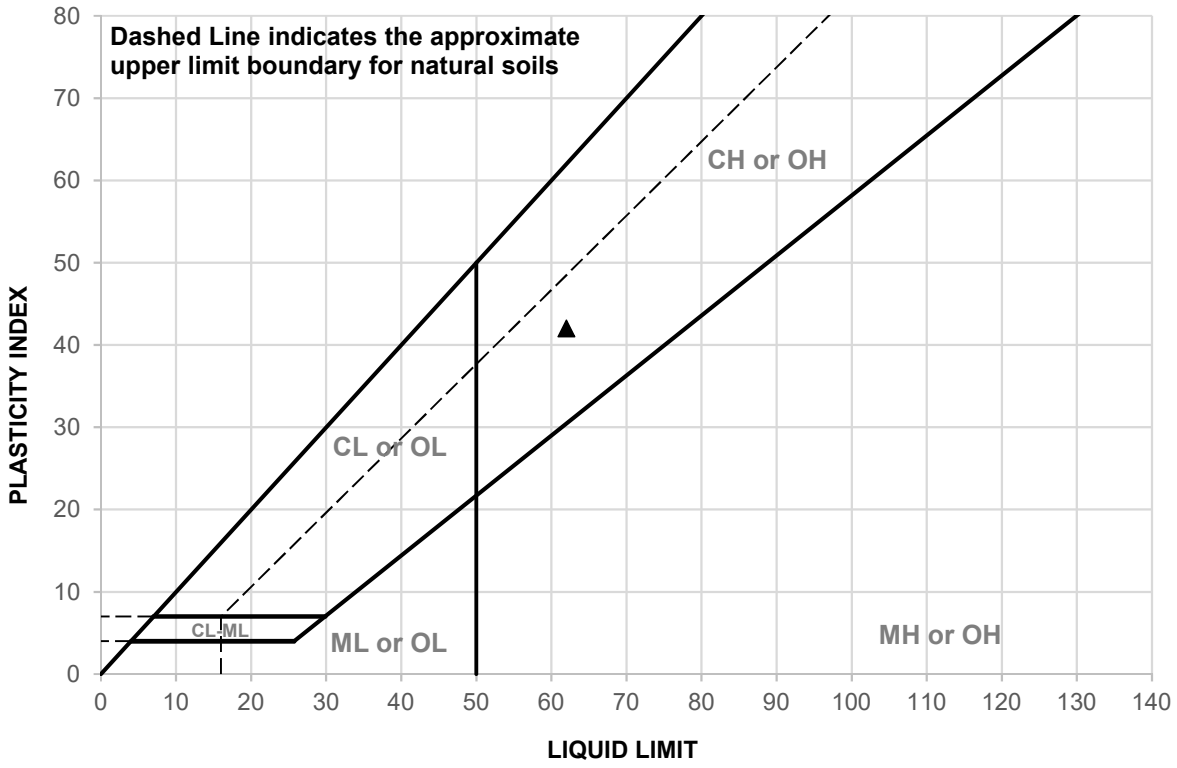
CLIENT: SEECON Financial & Construction Co.
PROJECT NAME: 7590 and 7650 Lone Tree Way Geotechncial
PROJECT NO: 19435.000.002
PROJECT LOCATION: Brentwood, CA
REPORT DATE: 2/10/2022
TESTED BY: M. Quasem
REVIEWED BY: W. Miller

LIQUID AND PLASTIC LIMITS TEST REPORT
ASTM D4318



	SAMPLE ID	DEPTH (ft)	MATERIAL DESCRIPTION	LL	PL	PI
▲	1-B3@2-2.5	2-2.5 feet	See exploration logs	62	20	42

	SAMPLE ID	TEST METHOD	REMARKS
▲	1-B3@2-2.5	PI: ASTM D4318, Wet Method	

ENGEO
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CLIENT: SEECON Financial & Construction Co.
PROJECT NAME: 7590 and 7650 Lone Tree Way Geotechnical
PROJECT NO: 19435.000.002 PH001
PROJECT LOCATION: Brentwood, California
REPORT DATE: 3/11/2022
TESTED BY: M. Quasem
REVIEWED BY: W. Miller

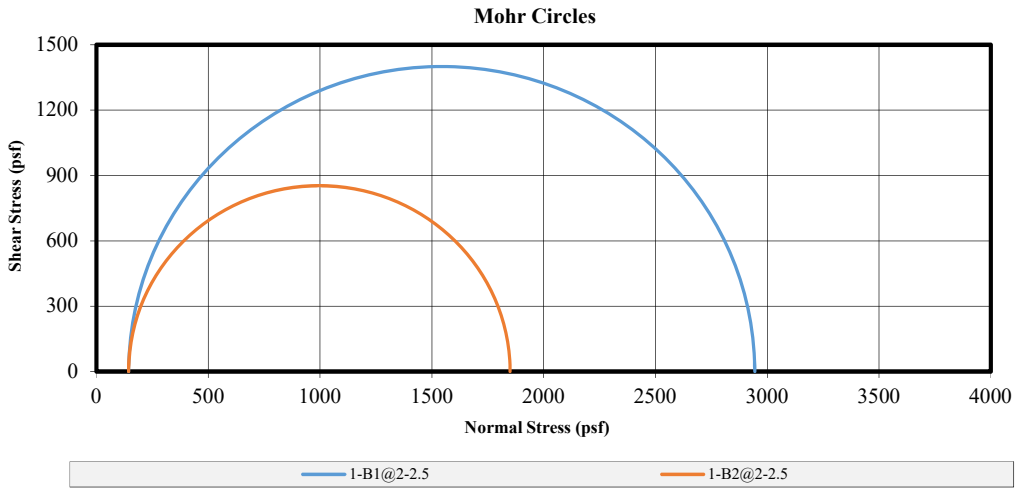
Isotropic Unconsolidated Undrained Triaxial Test
ASTM D2850

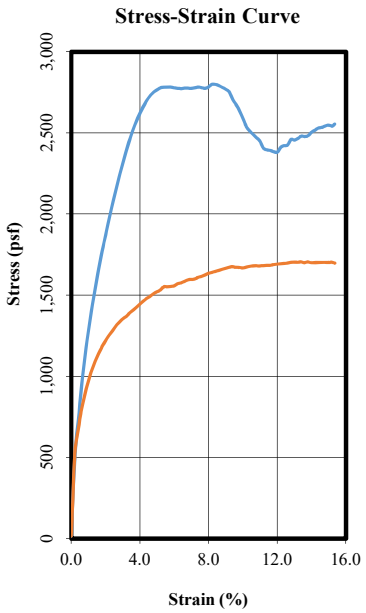
Date: 02/10/22

Checked By: W. Miller

Date: 2/10/2022

Tested By: M. Quasem





Before Test	Specimen 1-B1@2-2.5	1-B2@2-2.5		
Water Content (%)	12.42	12.99		
Dry Density (pcf)	113.90	114.20		
Saturation (%)	68.92	72.56		
Void Ratio	0.49	0.49		
Diameter (in)	2.400	2.410		
Height (in)	5.000	5.010		
Height-to-Diameter Ratio	2.083	2.079		
ASTM D4318 - Wet Method				
Liquid Limit				
Plastic Limit				
ASTM D854 - Assumed				
Specific Gravity	2.720	2.720		
After Test	1-B1@2-2.5	1-B2@2-2.5		
Water Content (%)	12.42	12.99		
Saturation (%)	68.92	72.56		
Strain Rate (%/min)	0.05	0.05		
Peak Deviator Stress (psf)	2800.1	1705.9		
Axial Strain @ Failure (%)	8.200	13.373		
	Cell Pressure			
Cell (psf)	144.0	144.0		
Back (psf)	n/a	n/a		
	Principle Stresses at Failure			
σ1 (psf)	2944.1	1849.9		
σ3 (psf)	144.0	144.0		
Corrected Peak Deviator Stress				

Mohr-Coulomb Parameters with a Non-zero Friction Angle (Ø≠0)			Cohesion at Failure with a Zero Friction Angle (Ø=0)			
Cohesion, c (psf)	n/a		1400.1	853.0		
Friction Angle Ø	n/a		n/a	n/a		

Project Information	
Project Name:	7590 and 7650 Lone Tree Way Geotechnical
Project Number:	19435.000.002 PH001
Project Location:	Brentwood, California
Client:	SEECON Financial & Construction Co.
Description:	See exploration logs
Test Remarks:	

ENGEO
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Isotropic Unconsolidated Undrained Triaxial Test
ASTM D2850

Date: 02/10/22

Checked By: W. Miller

Date: 2/10/2022

Tested By: M. Quasem

SPECIMEN PHOTOS

SAMPLE NUMBER: 1-B1@2-2.5	SAMPLE NUMBER: 1-B2@2-2.5
SAMPLE NUMBER:	**SAMPLE NUMBER:**

Project Information	
Project Name:	7590 and 7650 Lone Tree Way Geotechnical
Project Number:	19435.000.002 PH001
Project Location:	Brentwood, California
Client:	SEECON Financial & Construction Co.
Description:	See exploration logs
Test Remarks:	

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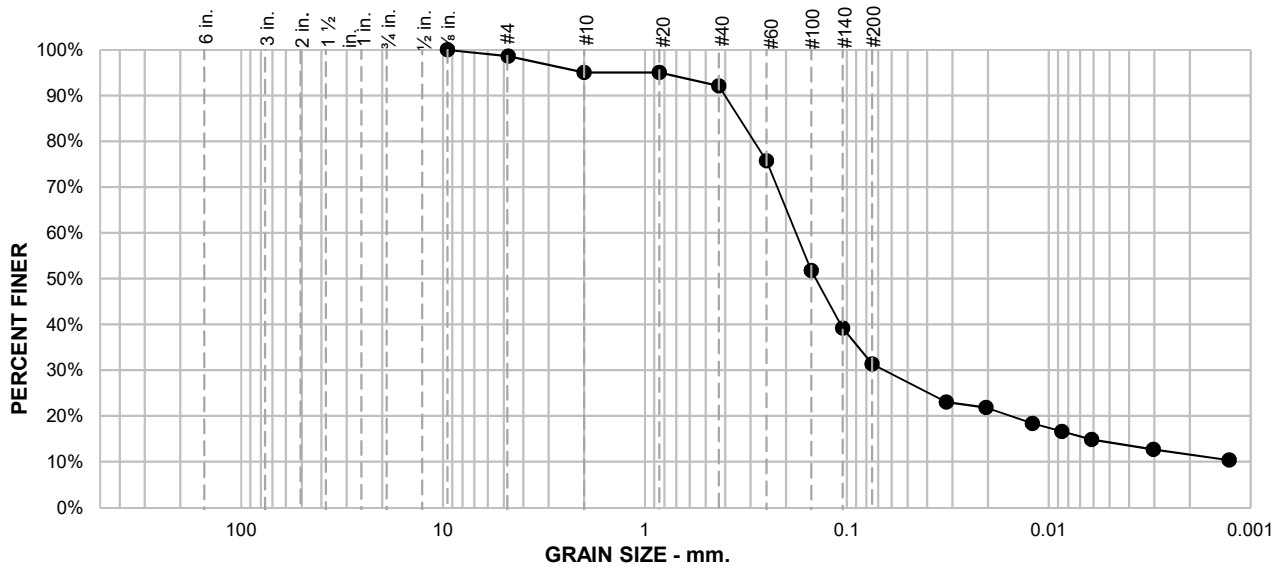
PARTICLE SIZE DISTRIBUTION REPORT

ASTM D422



SAMPLE ID: 1-B2 @ 1.5-2

DEPTH (ft): 1.5-2

% +75mm	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
		1.4	3.5	3.0	60.8	19.7	11.6

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
⅜ in.	100.0		
#4	98.6		
#10	95.1		
#20	95.1		
#40	92.1		
#60	75.7		
#100	51.7		
#140	39.2		
#200	31.3		
0.0322 mm.	23.0		
0.0205 mm.	21.8		
0.0120 mm.	18.4		
0.0086 mm.	16.6		
0.0061 mm.	14.9		
0.0030 mm.	12.7		
0.0013 mm.	10.3		

SOIL DESCRIPTION

See Exploration Logs

ATTERBERG LIMITS

PL = 17 LL = 19 PI = 2

COEFFICIENTS

D_{90} = 0.4012 mm D_{85} = 0.3400 mm D_{60} = 0.1790 mm
D_{50} = 0.1429 mm D_{30} = 0.0657 mm D_{15} = 0.0063 mm
D_{10} = C_u = C_c =

CLASSIFICATION

USCS = SM

REMARKS

Silt/clay division of 0.002mm used
PI: ASTM D4318, Wet Method
USCS: ASTM D2487

* (no specification provided)

ENGEO
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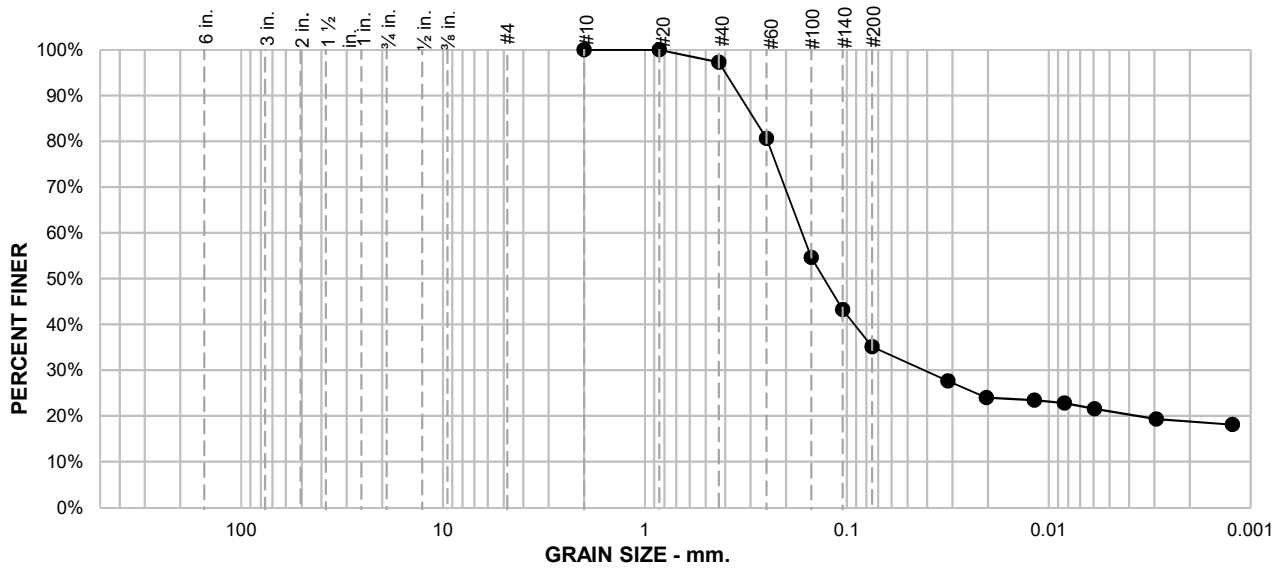
CLIENT: SEECON Financial & Construction Co.
PROJECT NAME: 7590 and 7650 Lone Tree Way Geotechncial
PROJECT NO: 19435.000.002
PROJECT LOCATION: Brentwood, CA
REPORT DATE: 2/11/2022
TESTED BY: M. Quasem
REVIEWED BY: W. Miller

PARTICLE SIZE DISTRIBUTION REPORT

ASTM D422



SAMPLE ID: 1-B4 @ 2-2.5

DEPTH (ft): 2-2.5

% +75mm	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
				2.7	62.2	16.3	18.8

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	100.0		
#40	97.3		
#60	80.7		
#100	54.7		
#140	43.3		
#200	35.1		
0.0315 mm.	27.7		
0.0204 mm.	24.0		
0.0118 mm.	23.4		
0.0084 mm.	22.8		
0.0059 mm.	21.6		
0.0029 mm.	19.3		
0.0012 mm.	18.1		

SOIL DESCRIPTION

See Exploration Logs

ATTERBERG LIMITS

PL = 7 LL = 25 PI = 18

COEFFICIENTS

D_{90} = 0.3388 mm D_{85} = 0.2877 mm D_{60} = 0.1665 mm
D_{50} = 0.1295 mm D_{30} = 0.0413 mm D_{15} =
D_{10} = C_u = C_c =

CLASSIFICATION

USCS = SC

REMARKS

Silt/clay division of 0.002mm used
PI: ASTM D4318, Wet Method

* (no specification provided)

ENGEO
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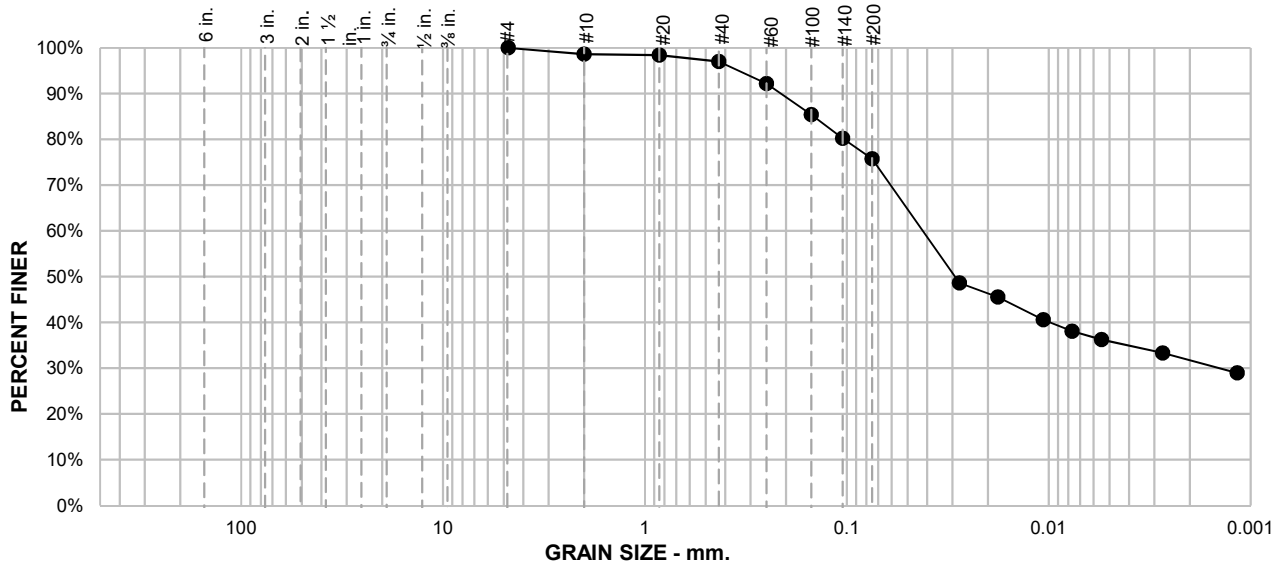
CLIENT: SEECON Financial & Construction Co.
PROJECT NAME: 7590 and 7650 Lone Tree Way Geotechncial
PROJECT NO: 19435.000.002
PROJECT LOCATION: Brentwood, CA
REPORT DATE: 2/11/2022
TESTED BY: M. Quasem
REVIEWED BY: W. Miller

PARTICLE SIZE DISTRIBUTION REPORT

ASTM D422



SAMPLE ID: 1-B5 @ 4-4.5

DEPTH (ft): 4-4.5

% +75mm	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
			1.4	1.6	21.3	44.0	31.7

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	98.6		
#20	98.4		
#40	97.0		
#60	92.2		
#100	85.4		
#140	80.2		
#200	75.7		
0.0277 mm.	48.6		
0.0179 mm.	45.5		
0.0107 mm.	40.6		
0.0077 mm.	38.1		
0.0055 mm.	36.2		
0.0027 mm.	33.3		
0.0012 mm.	28.9		

* (no specification provided)

SOIL DESCRIPTION

See Exploration Logs

ATTERBERG LIMITS

PL = 19 LL = 43 PI = 24

COEFFICIENTS

D_{90} = 0.2119 mm D_{85} = 0.1459 mm D_{60} = 0.0421 mm
D_{50} = 0.0291 mm D_{30} = 0.0014 mm D_{15} =
D_{10} = C_u = C_c =

CLASSIFICATION

USCS = CL

REMARKS

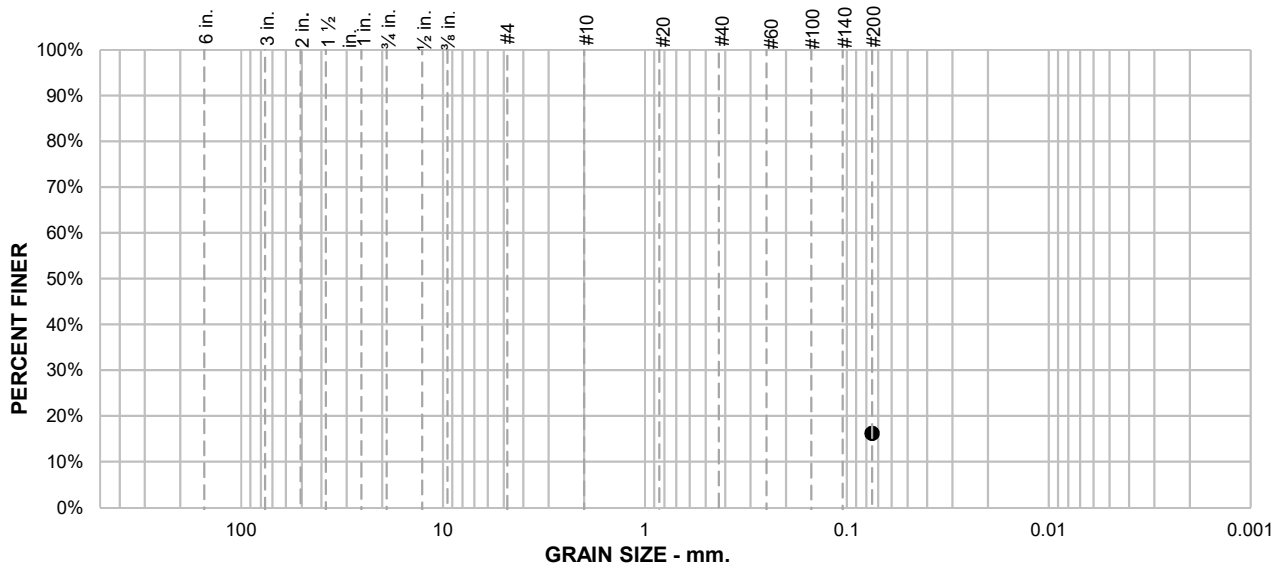
Silt/clay division of 0.002mm used
PI: ASTM D4318, Wet Method

ENGEO
Expect Excellence

CLIENT: SEECON Financial & Construction Co.
PROJECT NAME: 7590 and 7650 Lone Tree Way Geotechncial
PROJECT NO: 19435.000.002
PROJECT LOCATION: Brentwood, CA
REPORT DATE: 2/11/2022
TESTED BY: M. Quasem
REVIEWED BY: W. Miller

PARTICLE SIZE DISTRIBUTION REPORT

ASTM D1140, Method B



SAMPLE ID: 1-B3

DEPTH (ft): 10.5-11

LOCATION: 1-B3 @ 10.5-11

% +75mm	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
						16.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	16.2		

SOIL DESCRIPTION

See Exploration Logs

ATTERBERG LIMITS

PL = LL = PI =

COEFFICIENTS

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

CLASSIFICATION

USCS =

REMARKS

USCS: ASTM D2488

Soak time = 180 min
Dry sample weight = 256.36 g

* (no specification provided)

ENGEO
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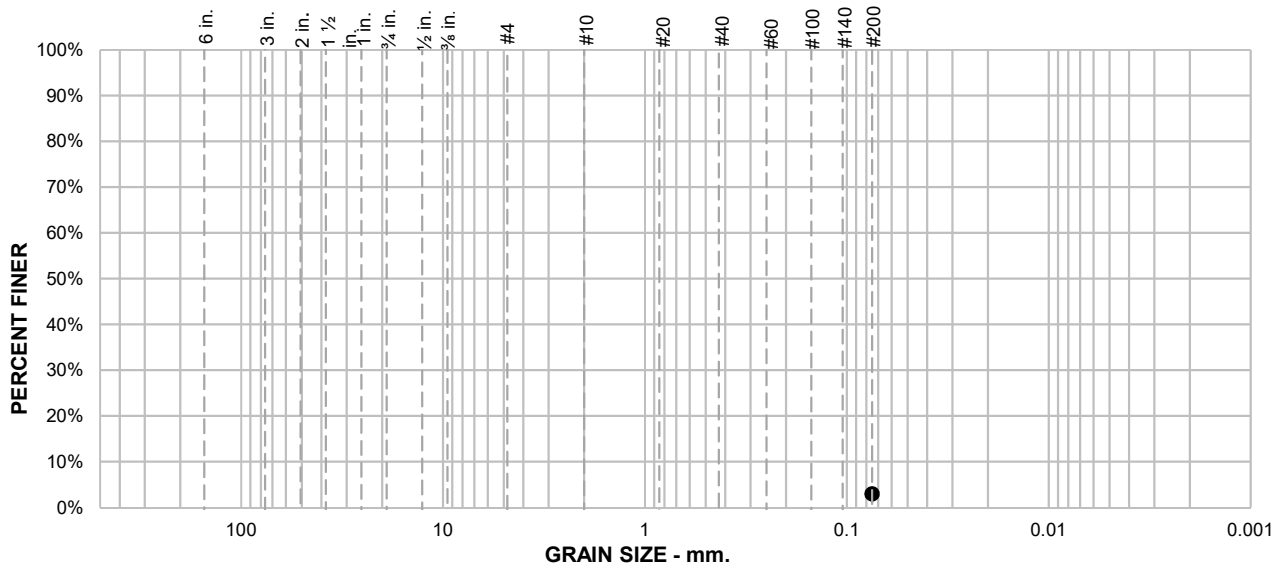
CLIENT: SEECON Financial & Construction Co.
PROJECT NAME: 7590 and 7650 Lone Tree Way Geotechncial
PROJECT NO: 19435.000.002
PROJECT LOCATION: Brentwood, CA
REPORT DATE: 2/10/2022
TESTED BY: M. Quasem
REVIEWED BY: W. Miller

PARTICLE SIZE DISTRIBUTION REPORT

ASTM D1140, Method B



SAMPLE ID: 1-B4

DEPTH (ft): 16-16.5

LOCATION: 1-B4 @ 16-16.5

% +75mm	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
						3.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	3.0		

SOIL DESCRIPTION

See Exploration Logs

ATTERBERG LIMITS

PL = LL = PI =

COEFFICIENTS

D_{90} = D_{85} = D_{60} =
D_{50} = D_{30} = D_{15} =
D_{10} = C_u = C_c =

CLASSIFICATION

USCS =

REMARKS

USCS: ASTM D2488

Soak time = 180 min
Dry sample weight = 309.9 g

* (no specification provided)

ENGEO
Expect Excellence

CLIENT: SEECON Financial & Construction Co.
PROJECT NAME: 7590 and 7650 Lone Tree Way Geotechncial
PROJECT NO: 19435.000.002
PROJECT LOCATION: Brentwood, CA
REPORT DATE: 2/10/2022
TESTED BY: M. Quasem
REVIEWED BY: W. Miller

CERCO analytical
1100 Willow Pass Court, Suite A
Concord, CA 94520-1006
925 462 2771 Fax. 925 462 2775
www.cercoanalytical.com

Client: ENGEO, Incorporated
Client's Project No.: 19435.000.002
Client's Project Name: 7590/7650 Lone Tree Way
Date Sampled: 10-Feb-22
Date Received: 11-Feb-22
Matrix: Soil
Authorization: Signed Chain of Custody

Date of Report: 25-Feb-2022

Job/Sample No.	Sample I.D.	Redox (mV)	pH	Conductivity (umhos/cm)*	Resistivity (100% Saturation) (ohms-cm)	Sulfide (mg/kg)*	Chloride (mg/kg)*	Sulfate (mg/kg)*
2202024-001	1-B2 @ 3-3.5'	320	7.34	-	6,700	N.D.	N.D.	N.D.
2202024-002	1-B4 @ 3.5-4'	310	7.32		5,600	N.D.	N.D.	N.D.

Method:	ASTM D1498	ASTM D4972	ASTM D1125M	ASTM G57	ASTM D4658M	ASTM D4327	ASTM D4327
Reporting Limit:	-	-	10	-	50	15	15
Date Analyzed:	14-Feb-2022	14-Feb-2022	-	14-Feb-2022	24-Feb-2022	14-Feb-2022	14-Feb-2022

Sherri Moore
Chemist

* Results Reported on "As Received" Basis
N.D. - None Detected

Quality Control Summary - All laboratory quality control parameters were found to be within established limits

CERCO analytical
1100 Willow Pass Court, Suite A
Concord, CA 94520-1006
925 462 2771 Fax. 925 462 2775
www.cercoanalytical.com

28 February, 2022

Job No. 2202024
Cust. No. 10169

Mr. Josh Hoeflich
ENGEO Inc.
2010 Crow Canyon Place, Suite 250
San Ramon, CA 94583

Subject: Project No.: 19435.000.002
Project Name: 7590/7650 Lone Tree Way
Corrosivity Analysis – ASTM Test Methods

Dear Mr. Hoeflich:

Pursuant to your request, CERCO Analytical has analyzed the soil samples submitted on February 11, 2022. Based on the analytical results, this brief corrosivity evaluation is enclosed for your consideration.

Based upon the resistivity measurements, both samples are classified as "moderately corrosive". All buried iron, steel, cast iron, ductile iron, galvanized steel and dielectric coated steel or iron should be properly protected against corrosion depending upon the critical nature of the structure. All buried metallic pressure piping such as ductile iron firewater pipelines should be protected against corrosion.

The chloride ion concentrations are both none detected with a reporting limit of 15 mg/kg.

The sulfate ion concentrations are both none detected with a reporting limit of 15 mg/kg.

The sulfide ion concentrations reflect none detected with a reporting limit of 50 mg/kg.

The pH of the soils are 7.32 and 7.34 which does not present corrosion problems for buried iron, steel, mortar-coated steel and reinforced concrete structures.

The redox potentials are 310 and 320-mV which are indicative of potentially "slightly corrosive" soils resulting from anaerobic soil conditions.

This corrosivity evaluation is based on general corrosion engineering standards and is non-specific in nature. For specific long-term corrosion control design recommendations or consultation, please call *JDH Corrosion Consultants, Inc. at (925) 927-6630.*

We appreciate the opportunity of working with you on this project. If you have any questions, or if you require further information, please do not hesitate to contact us.

Very truly yours,
CERCO ANALYTICAL, INC.

for Sherry Moore
J. Darby Howard, Jr., P.E.
President

JDH/jdl
Enclosure

CHAIN OF CUSTODY RECORD

2202034 #10169

PROJECT NUMBER: **19435.000.002**

PROJECT NAME: **7590/7650 Lone Tree Way**

SAMPLED BY: (PRINT) **Josh Hoeflich**

PROJECT MANAGER: **Josh Hoeflich; (805) 448-0739**

ROUTING: E-MAIL jhoeflich@engeo.com Hard Copy **NA**

SAMPLE NUMBER		DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	Redox	pH	Sulfate	Resistivity	Chloride	Sulfide	REMARKS REQUIRED DETECTION LIMITS
1-B2	@ 3-3.5'	2/10/2022		Soil	1	Liner	N/A	X	X	X	X	X	X	ASTM Test Methods w/ Evaluation
1-B4	@ 3.5-4'	2/10/2022		Soil	1	Liner	N/A	X	X	X	X	X	X	ASTM Test Methods w/ Evaluation

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
[signature]	2/10/22 13:30	Corey Olsen	Corey Olsen	2/11/22 09:00	[signature]
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE/TIME	REMARKS	
				STANDARD TAT	

EN GEO INCORPORATED

2010 CROW CANYON PLACE, SUITE 250
SAN RAMON, CALIFORNIA 94583
(925) 866-9000 FAX (888) 279-2698
WWW.ENGEO.COM

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Appendix E: Phase 1 Environmental Assessment

AllWest Environmental

ENVIRONMENTAL SITE ASSESSMENT

7590, 7600 & 7650 Lone Tree Way, Brentwood, CA 94513

PREPARED FOR:

Roman Catholic Bishop of Oakland
c/o Mr. David Klein
Transwestern
101 2nd Street
San Francisco, CA 94105

ALLWEST PROJECT 202142.20
April 15, 2021

PREPARED BY:

Klaudia Barberi, PG
Project Manager

REVIEWED BY:

Marc D. Cunningham
USEPA Environmental Professional
President

2141 Mission Street, Suite 100 | San Francisco, CA 94110 | 415.391.2510
3001 Red Hill Avenue, 1-105 | Costa Mesa, CA 92626 | 714.541.5303
AllWest Environmental | AllWest1.com

AllWest

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ENVIRONMENTAL ACRONYMS

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Sanborn Map Report
Aerial Photo Decade Package
Topo Map Report
City Directory Abstract
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ENVIRONMENTAL SITE ASSESSMENT

7590, 7600 & 7650 Lone Tree Way, Brentwood, CA 94513

I. EXECUTIVE SUMMARY

AllWest has completed an environmental site assessment of the real property referenced above. This assessment was performed in accordance with the scope and limitations of 40 CFR Part 312 Standards and Practices for All Appropriate Inquiry; Final Rule and ASTM E 1527-13 Standard Practice for Environmental Site Assessments (ESA): Phase I Environmental Site Assessment Process for the subject property. Any data gaps, exceptions to or deletions from these practices are described in Section IV of this report.

This ESA was conducted for the Roman Catholic Bishop of Oakland c/o Transwestern for disposition purposes. AllWest visited the subject property on March 25, 2021.

This executive summary is provided solely for the purpose of overview. Any party who relies on this report must read the full report. The executive summary may omit details, any one of which could be crucial to the proper understanding and risk assessment of the subject matter.

The subject property is comprised of two contiguous parcels, together comprising 16.18 acres. The west parcel has an area of 4.68 acres; the east parcel has an area of 11.5 acres. The subject property has approximately 1,040 feet of street frontage along Lone Tree Way. The majority of the property is fallow cropland, with three residences also present.

The west parcel, identified as Contra Costa County assessors parcel number (APN) 018-060-007, includes the 7590 and 7600 Lone Tree Way addresses. The east parcel, identified as APN 018-060-006, includes the 7650 Lone Tree Way address.

The 2-story home at 7590 Lone Tree Way consists of four bedrooms and two bathrooms. The assessor's website indicated six bedrooms and two bathrooms on 2,448 square feet of building area on parcel 018-060-007 (west parcel), addressed as 7590 Lone Tree Way. The construction year was listed as 1919.

The 1-story home at 7600 Lone Tree Way, also on the west parcel, consists of two bedrooms and one bathroom. According to the Multiple Listing Service (MLS) record it was constructed in 1966 and is 931 square feet in area. An attached one car garage is also present.

No information regarding the structures present on parcel 018-060-006 (east parcel) was found in any of the sources researched for this study. Several structures were observed from afar during the site visit. Access to the parcel was not permitted.

A groundwater well supplies potable water to 7590 and 7600 Lone Tree Way. No other wells were observed on the subject property. An unused domestic water well located on the east parcel was documented in the 2013 Phase I ESA.

According to the former owner Mr. Nicoletti, interviewed for the previous 2013 Phase ESA, the potable water well failed at 7650 Lone Tree Way (east parcel) at an undisclosed date and the property was connected to the well on the west parcel via a 900-foot pipeline that runs along the south property boundary. Based on historical building permit records, this work may have been completed in 1980. Mr. Nicoletti also stated the well located on the west parcel is 110 feet deep and the depth to groundwater is approximately 50 feet below ground surface.

Although not observed, an agricultural water supply well may be present of the subject property, based on the former presence of orchards and a former agricultural irrigation system observed in the field.

7590 and 7600 Lone Tree Way are connected to the municipal sewer system in May 2016. Prior to this date, the residences were served by individual septic systems, which may remain on the subject property. AllWest was unable to observe the type of sewer system present at 7650 Lone Tree Way. A septic system was documented at this property during the 2013 Phase I ESA, however.

AllWest observed the building premises for potential asbestos-containing materials (ACM) such as floor coverings, and ceiling and wall materials. No samples were collected. Based on the age of the buildings and our observations during the site visit, ACM are presumed to be present in wallboard and caulking, vinyl floor coverings and mastic.

AllWest evaluated the building premises for potential lead-based paint (LBP) coatings such as ceilings, and exterior and interior walls. Due to the age of the on-site buildings, constructed prior to the 1978 federal ban on LBP, painted surfaces are suspected to include LBP.

Limited mold growth was observed inside 7590 and 7600 Lone Tree Way bathrooms. Mold was not observed elsewhere in the accessible structures.

Surrounding land use predominantly includes residential and former agricultural properties. A K-9 training center adjoins north and a Muslim community center adjoins south.

The subject property is located on a flat lot approximately 75 to 80 feet above mean sea level. The subject property and vicinity slope very gently to the east-northeast. Depth to groundwater beneath the subject property is anticipated 20 to 50 feet below ground surface (bgs). The groundwater flow direction beneath the subject property is inferred to the east-northeast and northeast.

AllWest assessed the site's land use history by reviewing aerial photographs, topographic maps, city directories and other relevant documents. Our review indicates the subject property was developed with residential/agricultural structures in the southwest and southeast corners and cultivated with orchards/row crops from as early as 1939. Orchard cultivation ceased in the late 1970s or early 1980s. Changes in developments over time were too difficult to discern due to the poor quality of many of the aerial photographs and the lack of permit records and other historical documentation.

Regulated amounts of hazardous materials or wastes were not observed on the subject property during the site visit. No evidence of illegal dumping was observed during AllWest's site visit.

The subject property is not a recorded source of soil or groundwater contamination. However, from at least the 1930s until the late 1970s or early 1980s, the subject property was cultivated with orchards. Based on this land use history, AllWest cannot discount the potential for residual agricultural chemicals, such as pesticides, herbicides and related metals, such as arsenic and lead, to remain present in near-surface soils. Pesticides and herbicides potentially applied around the structure perimeters, as well as lead from flaking LBP, may be also present.

To identify the site's potential inclusion on environmental databases and evaluate off-site environmental concerns, AllWest reviewed a site-specific radius report provided by Environmental Data Resources, Inc. (EDR). The radius report searched agency lists and databases for recorded sites within the industry standard search radii.

The subject property was not included on any of the databases researched by EDR.

The agency database search found no surrounding or adjoining sites that appear likely to have significantly impacted the soil or groundwater resources underlying the subject property.

II. CONCLUSIONS AND RECOMMENDATIONS

AllWest has conducted a Phase I Environmental Assessment for the subject property in general accordance with 40 CFR Part 312 Standards and Practices for All Appropriate Inquiry; Final Rule and ASTM E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

AllWest has identified a Recognized Environmental Condition (REC) on the subject property based on historical agricultural land use activities and the age of the on-site structures. Residual agricultural chemicals from farming application and lead, pesticides, and herbicides from residential application, as well as flaking LBP may remain present in near-surface soil in the former cultivated areas and surrounding current and former structure perimeters.

Should the subject property be redeveloped in the future, evaluation of soil quality immediately surrounding building footprints and in the agricultural fields for pesticides, herbicides and related metals (including lead and arsenic) may be required.

AllWest has not identified a Historical REC or a Controlled REC at the subject property stemming from its current, historical or surrounding land use activities.

Although not considered a REC, AllWest notes the following.

Based on the age of the on-site buildings, we recommend an underground storage tank (UST)

survey around the existing structures and immediately surrounding areas.

Due to the age of the structures present on the subject property, ACM and LBP are presumed present. Prior to demolition of site structures, pre-demolition asbestos and lead-based paint surveys must be conducted by a licensed consultant. Identified ACMs must be appropriately abated by a licensed contractor.

The unused well on the east parcel should be abandoned in accordance with regulatory agency requirements.

If no longer planned for use in the future, the existing potable water supply well on the west parcel also should be abandoned in accordance with regulatory agency requirements.

Should additional wells be located on the subject property in the future, they also should be abandoned in accordance with regulatory agency requirements.

Should any septic systems remain on the subject property, they will also require removal prior to redevelopment.

III. ENVIRONMENTAL PROFESSIONALS' DECLARATION

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in 40 CFR 312.10. We have the specific qualifications based on education, training and experience to assess a property of the nature, history, and setting of the subject property.

We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Klaudia Barberi, PG
Project Manager

Marc D. Cunningham
USEPA Environmental Professional

IV. SCOPE OF WORK AND LIMITATIONS

This Phase I ESA was prepared in accordance with AllWest's March 2021 proposal, with respect to the property located at 7590, 7600 and 7650 Lone Tree Way in Brentwood, California and performed in general accordance with ASTM 1527-13 and 40 CFR Part 312, except as set forth in the proposal. The work conducted by AllWest is limited to the services agreed to with the Roman Catholic Bishop of Oakland c/o Transwestern. No other services beyond those explicitly stated should be inferred or are implied.

The objective of this ESA was to evaluate the subject property for conditions indicative of a release or threatened release of hazardous substances on, at, in or to the property. AllWest's professional services were performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in the location of the subject site at the time of our investigation. This warranty is in lieu of all other warranties, expressed or implied.

Our professional judgment regarding the potential for environmental impacts is based on limited data and our investigation was not intended to be a definitive investigation of contamination at the site. Unless specifically set forth in our proposal, the scope of work did not include groundwater or soil sampling, or other subsurface investigations, a strict compliance audit of the site, or a review of the procedures for hazardous material use, waste storage or handling prior to disposal, or for personnel safety and health training and monitoring procedures, analyses of radon, formaldehyde, lead paint, asbestos and other hazardous materials or indoor air quality, occupational health and safety or wetlands surveys.

The purpose of conducting a Phase I ESA is to assess the subject property for conditions indicative of releases or threatened releases of hazardous substances on, at, in or to the property resulting from its current, historical and surrounding land use activities. As noted in 40 CFR Part 312, Environmental Assessments are purely qualitative with conclusions drawn from a multitude of sources as evaluated by the environmental professional using professional judgment. Since soil and groundwater data are typically not generated during assessment activities, report conclusions such as "the site is clean" or alternatively "the site is contaminated" cannot be provided.

Recognizing the limitations of the Phase I ESA methodology, AllWest assesses the potential for site

contamination using a four-tier likelihood scale designated as:

Very Low: 1–5% chance of discovering contamination at the site which would result in regulatory mandated remedial investigation and clean-up;

Low: 10% chance of discovering contamination at the site which would result in regulatory mandated remedial investigation and clean-up;

Moderately Low: 20–30% chance of discovering contamination at the site which would result in regulatory mandated remedial investigation and clean-up; and

Moderate: greater than 30% chance of discovering contamination at the site which would result in regulatory mandated remedial investigation and clean-up.

As defined above, these terms are used throughout the report.

Entities relying on the report should realize that uncertainty of site environmental conditions can be further reduced via soil and groundwater sampling. While this option certainly costs additional monies and extends the assessment's time frame, it also quantitatively documents site conditions, which can facilitate future disposition or refinance activities.

Regarding any subsurface investigation, sampling undertaken or subsurface reports reviewed, our opinions are limited to only specific areas and analytes evaluated and AllWest is not accountable for analyte quantities falling below recognized standard detection limits for the laboratory method utilized. AllWest does not warrant or guarantee the subject property suitable for any particular purpose, or certify the subject site as clean or free on contamination. As with any assessment, it is possible that past or existing contamination remains undiscovered.

The professional opinions set forth in this report are based solely upon and limited to AllWest's visual observations of the site and the immediate site vicinity, and upon AllWest's interpretations of the readily available historical information, interviews with personnel knowledgeable about the site, and other readily available information. Consequently, this report is complete and accurate only to the extent that cited reports, agency information and recollections of persons interviewed are complete and accurate. The opinions and recommendations in this report apply to site conditions and features as they existed at time of AllWest's investigation. They cannot necessarily apply to conditions and features of which AllWest is unaware and has not had the opportunity to evaluate. Future regulatory modifications, agency interpretations, and/or policy changes may also affect the compliance status of the subject property. AllWest has made no attempt to address future financial impacts to the site (e.g., reduced property values) as a result of potential subsurface contaminant migration.

DATA GAPS: AllWest has made a good faith effort to obtain information required by 40 CFR Part 312 to formulate a professional opinion. Instances where data gaps occur are detailed within our report with an opinion as to whether the information void is significant, impacting our ability to identify conditions indicative of a release or potential release of hazardous substances. In general, if a data gap is identified by AllWest, it will be discussed in the report's conclusion section with a recommendation for additional work.

This Phase I ESA was prepared for the sole and exclusive use of the Roman Catholic Bishop of Oakland c/o Transwestern, the only intended beneficiary of our work. This report is intended exclusively for the purpose outlined herein and the site location and project indicated and is intended to be used in its entirety. No excerpts may be taken to be representative of the findings of this assessment. The scope of services performed in execution of this investigation may not be appropriate to satisfy other users, and any use or reuse of this document or its findings, conclusions or recommendations presented herein is at the sole risk of the user. This report is not a specification for further work and should not be used to bid out any of the recommendations found within.

V. ENVIRONMENTAL ISSUES MATRIX

7590, 7600 & 7650 Lone Tree Way, Brentwood, CA **AllWest Project 202142.20**

On-Site Issues	*Located*	*Regulatory Compliance*	*Recommended Action*	*Refer To Section*
55-Gallon Drums	No			
Above Ground Tanks	No			
Underground Tanks	Unknown		Conduct UST survey.	G.4
Evidence of Material Discharge/Release	No			
PCB-containing Transformers	No			
Hazardous Materials	No			
Hazardous Wastes	No			
Wells	Yes		Abandon unused well on east parcel Abandon well on west parcel in future if use not required.	E.6
Asbestos-Containing Materials	Presumed		Sample suspect ACM if planned for demolition.	F.1
Lead Based Paints	Presumed		LBP survey if planned for demolition.	F.1
Mold	No		Small amounts of mold identified in one of the bathrooms.	F.1
Air Quality Issues	No			
Radon	No			
Sensitive Ecological Areas	No			
Regulatory Database Listings	No			
REC	Yes		Soil quality evaluation prior to redevelopment.	H.2
CREC/HREC	No			
Earthquake Zone	No			
Other	Yes		Remove septic system equipment prior to redevelopment, if remaining.	E.11

Off-Site Issues	*Located*	*Within 1/4 Mile*	*Within 1/2 Mile*	*Recommended Action*	*Refer To Section*
NPL Sites	No				
SEMS Sites	No				
RCRA TSDF	No				
EnviroStor Sites	Yes	1	4 w/in one mile	None	I.9
CPS-SLIC Sites	No				
LUST Sites	No				

Note: ASTM-designated search radius for NPL and EnviroStor sites is 1 mile.

VI. ASSESSMENT FINDINGS

A. SITE INFORMATION

1. PURPOSE: This ESA was conducted for the Roman Catholic Bishop of Oakland c/o Transwestern for disposition purposes.

   The subject property owner's representative provided no information on whether the planned property sale price reflects the fair market value. However, the representative indicated that he was not aware of a reduction in property value due to environmental issues.

2. PROPERTY ADDRESS: The subject property is located at 7590, 7600 & 7650 Lone Tree Way, Brentwood, Contra Costa County, California.

   The subject property location is shown on the attached figures and within the EDR report in Appendix A.

3. ASSESSOR'S PARCEL NUMBER: The subject property consists of two contiguous rectangular parcels, identified with APNs 018-060-006 (east parcel) and 018-060-007 (west parcel). The parcel map in included in Appendix B.

4. ZONING: The subject property is zoned R-1-12 – Single Family Residential – Minimum lot size of 12,000 square feet.

5. SITE DESCRIPTION: The subject property has a total area of 16.18 acres. The west parcel has an area of 4.68 acres and the east parcel has an area of 11.5 acres. The subject property has approximately 1,040 feet of street frontage along Lone Tree Way. The majority of the property is fallow cropland, with three residences and associated outbuildings also present.

   The 2-story home at 7590 Lone Tree Way consists of four bedrooms and two bathrooms. The construction year and square footage of the home are unknown.

   The 1-story home at 7600 Lone Tree Way consists of two bedrooms and one bathroom. According to the Multiple Listing Service (MLS) record it was constructed in 1966 and is 931 square feet in area (Appendix B). An attached one car garage is also present.

   We note, the assessor's website indicated six bedrooms and two bathrooms on 2,448 square feet of building area on parcel 018-060-007 (west parcel), addressed as 7590 Lone Tree Way. The construction year was listed as 1919. It is unclear to which building, if not both, this information pertains to.

   No information regarding the structures present on parcel 018-060-006 (east parcel) was found in any of the sources researched for this study. Several structures were observed from afar during the site visit.

6. CURRENT USE OF PROPERTY BY TENANT(S): Residential properties at 7590 and 7600 Lone Tree Way were occupied by tenants during the site visit. Occupancy of the third residence at 7650 Lone Tree Way is unknown.

7. CURRENT USE OF SURROUNDING PROPERTIES: Surrounding land use includes mostly residential properties and some commercial use. Sites neighboring the subject property include the following.

   North: Residential properties at 2882 O'Hara Avenue and 811-871 Bonnie Lane and Alert K-9 Training Center at 901 Bonnie Way

   East: Residential property at 7560 Lone Tree Way

   South: Lone Tree Way, followed by residential properties at 2410 and 2421 Smith Road and 7721 Lone Tree Way, and Brentwood Muslim Community Center at 7701 Lone Tree Way

   West: Agricultural residences at 7770 and 7774 Lone Tree Way

8. SITE RECONNAISSANCE: Ms. Klaudia Barberi of AllWest visited the subject property on March 25, 2021. Access to the properties at 7590 and 7600 Lone Tree Way was facilitated by the tenants. The roofs were not accessed. The property at 7650 Lone Tree Way was inaccessible during the site visit. It was observed from the agricultural field to the north. Although the lack of access to the property is considered a data gap, storage of significant amounts of hazardous materials is not anticipated as the land use is residential.

   Adjoining properties were observed from public right-of-ways. Site photographs are included with this report.

9. INTERVIEWS WITH PRESENT PROPERTY OWNER(S): Prior to AllWest's site visit, we forwarded an environmental questionnaire to Mr. David Klein and Mr. Gabriel Roldan of Transwestern, a real estate company, to collect information on past uses and ownerships of the

property and to identify potential conditions that may indicate the presence of releases or threatened releases of hazardous substances at the subject property. The questionnaire was completed for each parcel by Mr. Gabriel Roldan of Transwestern, the property owner's representative. Copies of the questionnaire are included in Appendix B.

Mr. Roldan indicated he was unaware of engineering controls, land use restrictions or institutional controls on the subject property, or of any environmental cleanup liens or environmentally related Activity and Use Limitations (AULs).

Mr. Roldan did not have specialized knowledge that would be material in identifying soil or groundwater contamination at the subject or adjoining properties.

Based on Mr. Roldan's knowledge and experience related to the property there are no obvious indicators that suggest the presence or likely presence of hazardous materials releases at the property.

Through electronic correspondence, Mr. Klein indicated that the subject property has not been farmed since its purchase and undergoes annual weed abatement to meet the local fire code requirements.

AllWest's assessment of the site's current use did not encounter data gaps that diminish our ability to provide an opinion on a release or potential release of hazardous substances at the subject property.

10. PREVIOUS REPORTS: AllWest was provided by the Client with following ESA report prepared for the subject property. A copy of the report is included in Appendix C.

    Phase I Environmental Site Assessment, Three Agricultural Parcels, 7560 to 7650 Lone Tree Way, Brentwood, California, Bureau Veritas North America, Inc. (BVNA), July 15, 2013, prepared for Diocese of Oakland

    The 2013 Phase I ESA was completed in accordance with the ASTM Standard E 1527-05 applicable at that time. The ESA presented a description of the site and history of property development/use, assessed the potential for on-site and off-site sources of contamination and provided findings and recommendations.

    The assessed property included a parcel adjoining west, addressed as 7560 and 7570 Lone Tree Way, which was not included in AllWest's scope of work for this study.

    At the time of their assessment, BVNA reported that the west parcel consisted of two vacant residences, a barn/shop structure, abandoned animal pens, county irrigation water piping along the eastern and northern perimeter, and tilled land. The east parcel was occupied by a residence, a garage, a storage building (possibly a former residence), a house trailer, a metal storage shed and tilled land.

    BVNA interviewed the previous owner of the subject property, Mr. Frank Nicoletti, who had owned the property since 1978. According to the former owner, the subject property was originally used to cultivate a walnut orchard. The orchard trees were removed circa 1993 and the field was utilized for cow pasture. We note based on our research, the orchards trees were no longer present on the subject property by 1982.

    According to Mr. Nicoletti, the potable water well failed at 7650 Lone Tree Way (west parcel) at an undisclosed date and the property was connected to the well on the west parcel via a 900-foot pipeline that runs along the south property boundary. The unused well on the east parcel remained at the time of the 2013 ESA. Mr. Nicoletti stated the well on the west parcel is 110 feet deep and the depth to groundwater is approximately 50 feet below ground surface.

    Mr. Nicoletti also stated that he was not aware of any current or prior subsurface features on the subject property, such as underground or aboveground storage tanks.

    Other relevant details included in the 2013 Phase I ESA are referenced throughout this report, where appropriate.

    BVNA concluded that use of the subject property as an orchard from at least 1939 until circa 1993, and likely use of agricultural chemicals commonly associated with orchards, constituted a REC.

    BVNA also concluded that the presence of domestic water wells, including one that was not in use, posed a potential environmental concern.

    BVNA recommended a subsurface investigation at the subject property.

B. HISTORICAL LAND USE: SITE AND VICINITY

1. HISTORICAL USE OF THE PROPERTY: Historical documents in the form of aerial

photographs, Sanborn maps, topographic maps, city directories and municipal records were reviewed by AllWest, to evaluate past land use of the subject property. AllWest attempted to review historical documents as far back in time as the property contained structures or was used for agricultural, residential, commercial, industrial or governmental purposes, and used professional judgment to determine the extent of historical research.

Aerial photographs, Sanborn Fire Insurance Maps, US Geological Survey topographic maps and city directories were reviewed. The aerial photographs covered the years 1939, 1949, 1959, 1963, 1966, 1972, 1979, 1982, 1984, 1993, 1998, 2006, 2009, 2012 and 2016. The topographic maps were dated 1914, 1916, 1940, 1943, 1954, 1968, 1978 and 2012. There was no Sanborn map coverage for the subject property and surrounding area. City directories dated between 1975 and 2017 in three to five year intervals also were reviewed. Historical sources were obtained from EDR of Shelton, Connecticut and are provided in Appendix A.

Historical and current records were requested from various local oversight agencies, including the Contra Costa County Environmental Health Department (CCCEHD), the City of Brentwood, the East Contra Costa Fire Protection District (ECCFPD) and reviewed on the Contra Costa County Assessor website. A chain-of-title review was not conducted.

Topographic Maps

1914: The subject property was depicted as undeveloped.

1916: The subject property was depicted as undeveloped.

1940: The subject property was indicated as orchard trees. One small building was depicted along Lone Tree Way, near the southeast portion.

1943: No changes were depicted on the subject property from the 1940 map.

1954: The subject property was indicated as orchard trees. Three small buildings were depicted in the southwest corner and one small building was depicted on the east side of the subject property.

1968: Two buildings, instead of three, were depicted in the southwest corner of the property; otherwise, there were no other changes compared to the 1954 map.

1978: The relative location of the two buildings in the southwest corner was different. No other significant changes were depicted on the subject property.

2012: No structures or features of environmental significance were depicted on the subject property.

Aerial Photographs

1939: Row crops or newly planted trees appeared present on the west parcel. At least two or three structures were visible near the southwest corner. An orchard was present on the east parcel. Structures were also present on the southeast portion of the subject property; however, details were difficult to discern.

1949: Small trees appeared present on the west parcel, otherwise no significant changes were visible on the subject property from the 1939 photograph.

1959: Both parcels appeared cultivated with orchards; there were no significant changes otherwise. The photograph quality was poor.

1963: The subject property was cultivated with orchards. At least two buildings were visible near the southwest corner and three other buildings were visible on the southeast portion of the subject property.

1966: There appeared to be three structures in the southwest corner of the subject property. No other significant changes were visible on the subject property from the 1963 photograph.

1972: Fewer orchard trees appeared visible, possibly due to lack of active cultivation. No other changes were discernible on the subject property from the 1966 photograph; however, the photograph quality was very poor.

1979: The orchard trees appeared no longer actively cultivated. No other significant changes were visible on the subject property from the 1963 photograph. Development details were difficult to discern as the photograph quality was very poor.

1982: The orchard trees were gone. Residential developments were visible in the southwest and southeast corners of the subject property. The number and configuration of developments was impossible to discern. A structure appeared

visible on the northwest portion of the property as well. The majority of the property was undeveloped and did not appear farmed.

1984: No significant changes were discernible on the subject property from the 1982 photograph.

1993: No significant changes were discernible on the subject property from the 1984 photograph.

1998: No significant changes were discernible on the subject property from the 1993 photograph.

2006: No significant changes were discernible from the 1998 photograph.

2009: No significant changes were discernible from the 2006 photograph.

2012: No significant changes were discernible from the 2009 photograph.

2016: No significant changes were discernible from the 2012 photograph.

City Directories

Individual resident names were listed under subject property addresses between 2000 and 2017. There were no business listings.

Agency Records

The CCCEHD, which is the Certified Unified Program Agency (CUPA) for the subject property area, did not have records for the subject property addresses (Appendix B).

The CCCEHD - Land Use Program, which manages drilling and well permit records, did not respond to AllWest's request for a public records review dated March 5, 2021 or our follow up dated March 24, 2021.

Building permit records provided by a representative from the City of Brentwood indicated no permits for 7650 Lone Tree Way and the following three permits for 7590 and 7600 Lone Tree Way (Appendix B).

7590 Lone Tree Way – Sewer connection – permit issued 5/13/2016

7600 Lone Tree Way – Sewer connection – permit issued 5/13/2016

7600 Lone Tree Way – Electrical inspection (PG&E removed) – permit issued 8/23/2002

AllWest also searched the online Contra Costa County ePermit Center, however, our search did not yield any results for the parcel numbers or the subject property street addresses.

The 2013 Phase I ESA by BVNA documented the following historical permits for the subject property obtained from the Contra Costa County Building Inspection Division.

West parcel – Electrical permit issued to Vincent Nicoletti for power pole and connection to well – issued 12/2/1980

East parcel – Plumbing permit for gas line for heater to hydroponic greenhouse – issued 8/22/1977

East parcel – Building permit issued to Frank Nicoletti, no other details – issued 5/19/1981

The ECCFPD did not respond to AllWest's request for a file review. Although it is considered a data gap, it is not significant as no substantial records are anticipated based on the property's residential use.

Online Sources

According to information on the assessor's webpage, the subject property was last sold in 2014.

The California Department of Toxic Substances Control (DTSC) EnviroStor and Regulated Site Portal, as well as State Water Resources Control Board (SWRCB) GeoTracker databases were reviewed online. The subject property was not listed on the databases.

Summary of Historical Land Use

AllWest's land use history review indicates the subject property was developed in the southwest and southeast corners and cultivated with orchards/row crops from as early as 1939. Orchard cultivation ceased in the late 1970s or early 1980s. Changes in developments over time were too difficult to discern due to the poor quality of many of the aerial photographs and the lack of permit records.

AllWest's assessment of the site's historical land use activities did not encounter data gaps that diminish our ability to provide an opinion on a release or potential release of hazardous substances at the subject property.

2. HISTORICAL USE OF SURROUNDING PROPERTIES: AllWest reviewed the previously

referenced Sanborn maps, aerial photographs, topographic maps and city directories to assess the historical land use in the immediate site area.

Topographic Maps

1914 & 1916: Lone Tree Way was present, otherwise the surrounding area was depicted as undeveloped.

1940: The surrounding area was cultivated with orchards. A few homes and/or agricultural structures were present on the lots adjoining south and west.

1943: No changes to the surrounding properties were depicted on this map.

1954: More small structures were depicted on the lots adjoining south and west, otherwise there were no significant changes to the surrounding area from the 1943 map.

1968: A dirt road was depicted north of the subject property (now Bonnie Lane), otherwise there were no significant changes to the surrounding area from the 1954 map.

1978: The road north of the subject property was depicted as paved. Minor building configuration changes were also depicted.

2012: No development details were depicted on this map, only city streets.

Aerial Photos

1939: The surrounding properties were largely cultivated with orchards. The land adjoining south appeared fallow. A few scattered developments were visible.

1949: More buildings were visible west and south of the property. The land adjoining south was cultivated with orchards. No other changes were noted in the surrounding area.

1959: More commercial or farm-related buildings were visible north of the subject property. Otherwise, orchard cultivation continued in the surrounding area.

1963: No significant changes were visible on the properties adjoining the subject property.

1966: No significant changes were visible on the properties adjoining the subject property.

1972: Some of the surrounding properties were no longer cultivated with orchards. Minor changes in development were visible in the greater surrounding area. The photograph quality was very poor.

1979: Some of the remaining orchards appeared no longer actively cultivated. No other significant changes were visible in the area surrounding the subject property.

1982: Greenhouses or other farm-related structures were visible on the property adjoining east. Some of the orchards were replaced with row crops and fallow land. No other significant changes were visible in the area surrounding the subject property from the 1979 photograph.

1984: No significant changes were noted in the area immediately surrounding the subject property from the 1982 photograph.

1993: More buildings appeared present in the area to the north and northeast. Few orchards remained in the surrounding area and were further replaced by row crops and fallow land. No other significant changes were visible in the area surrounding the subject property from the 1984 photograph.

1998: No significant changes were noted in the area immediately surrounding the subject property from the 1993 photograph.

2006: No cultivated orchards remained. Residential subdivisions were visible to the north, northeast and southwest. A lot further west was graded in preparation for development.

2009: More housing developments were in the process of construction further to the west and southeast of the subject property.

2012: The subdivision to the southeast appeared completed. More homes were added to the subdivision to the west.

2016: The subdivisions to the west appeared complete. In general, more residential subdivisions appeared in the surrounding area.

City Directories

Nearby business listings along Lone Tree Way and O'Hara Avenue included the following.

7570 Lone Tree Way

1995: Dan Turcotte Trucking

2000: DTE

2005: Dan T Excavating

7701 Lone Tree Way

2014-2017: Brentwood Muslim Community Center

7772 Lone Tree Way

1995: Asahi Nursery

2882 O'Hara Avenue

2014-2017: Smart Start Preschool

In their 2013 ESA, BVNA documented vehicle maintenance activities at 7570 Lone Tree Way adjoining west dating back to circa 1980. Other nearby listings along Lone Tree Way and O'Hara Avenue included individual tenant names. None of the city directory listings appeared of significant environmental concern.

Summary of Historical Vicinity Land Use

AllWest's land use history review of the subject property vicinity indicates it was cultivated with orchards from as early as the 1930s. By the 1990s orchard cultivation was largely replaced by row crops and fallow land. Until the 2000s, the surrounding area was largely developed with residences and farm-related structures. In the 2000s, residential subdivisions started appearing in the greater surrounding area in place of orchards and agricultural fields. None appeared located on adjoining properties, however.

AllWest's assessment of the subject property's current and historical surrounding land use activities did not encounter data gaps that diminish our ability to provide an opinion on a release or potential release of hazardous substances at the subject property.

C. PHYSICAL CHARACTERISTICS

1. TOPOGRAPHY: The subject property is located on a flat lot approximately 75 to 80 feet above mean sea level. The subject property and vicinity slope very gently to the east-northeast.

2. VEGETATION: The agricultural field on the subject property appeared to be growing with a cover crop. However, Mr. Klein was informed by the owner that the property has not been farmed since its purchase and undergoes annual weed abatement to meet the local fire code requirements.

3. SOILS: Site soils are classified by the U.S. Department of Agriculture Soil Conservation Service as Rincon clay loam and Delhi sand. The Rincon series is coarse-grained and has slow infiltration rates. The Delhi series is coarse-grained and has high infiltration rates. No stained or discolored soil was observed.

4. GEOLOGY: Based on a review of the USGS Note 36 California Geomorphic Provinces map, the property is located in the Coast Ranges geomorphic province of California. The coastline is uplifted, terraced and wave-cut. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary strata. The northern and southern ranges are separated by a depression containing the San Francisco Bay.

   The northern Coast Ranges are dominated by the irregular, knobby landslide-topography of the Franciscan Complex. The eastern border is characterized by strike-ridges and valleys in Upper Mesozoic strata. In several areas, Franciscan rocks are overlain by volcanic cones and flows of the Quien Sabe, Sonoma and Clear Lake volcanic fields. The Coast Ranges are subparallel to the active San Andreas Fault. The San Andreas is more than 600 miles long, extending from Point Arena to the Gulf of California. West of the San Andreas is the Salinian Block, a granitic core extending from the southern extremity of the Coast Ranges to north of the Farallon Islands. Geologically, the area of the subject property is underlain by Mesozoic era Eugeosynclinal Deposits.

5. HYDROLOGY: According to California's Groundwater Bulletin 118, the property lies in the San Francisco Bay Hydrologic Region, San Joaquin Valley – East Contra Costa (5-022.19).

   Based on information from the nearest investigated site located 3,700 feet to the south (Chevron – Cambrian Place and Minnesota Avenue, Brentwood) available on GeoTracker, depth to groundwater beneath that site is 20 to 30 feet bgs. Based on the topographic slope to the east-northeast and the reported groundwater flow direction at the Chevron site, the groundwater flow direction beneath the subject property is inferred to the east-northeast and northeast.

   According to the 2013 Phase I ESA, the former subject property owner Mr. Nicoletti, stated the depth to groundwater in the active well on the west parcel is approximately 50 feet below ground surface.

The property does not fall under requirements of the National Pollutant Discharge Elimination System (NPDES).

D. NATURAL HAZARDS

1. SEISMICITY: The greater subject property area is considered seismically active, and earthquakes are an unavoidable geologic hazard in Contra Costa County. The subject property is not located within an Alquist-Priolo Special Study Zone for fault rupture hazard. The California Geological Survey indicates the subject property is not located in a hazard zone for liquefaction. Davis fault is located 3¼ mile west of the subject property. The Greenville fault zone is located 10 southwest of the subject property.

2. RADON: Out-gassing of radon has not been identified as a problem in Contra Costa County. The U.S. EPA has prepared a map to assist national, state and local organizations to target their resources, and to implement radon-resistant building codes. The map divides the country into three Radon Zones, Zone 1 being those areas with the average predicted indoor radon concentration in residential dwellings exceeding the EPA Action limit of 4.0 picoCuries per Liter (pCi/L) and Zone 3 being those areas with the average predicted indoor radon concentration in residential dwellings less than 2 pCi/L.

   It is important to note that the California Department of Health Services (DHS), in its California Statewide Radon Survey of 1990, has found homes with elevated levels of radon in all three zones, and both EPA and DHS recommend property-specific testing in order to determine radon levels at a specific location. However, the DHS Radon Survey does give a valuable indication of the propensity of radon gas accumulation in structures. Review of the DHS Radon Survey places the property in Zone 2, where average predicted radon levels are between 2 and 4 pCi/L.

   According to the EDR report, five state radon tests were conducted in the subject property zip code of 94513. Radon did not exceed 4 pCi/L in any of the tests. Results reported for 55 federal radon tests conducted in Contra Costa County showed an average radon concentration of 0.300 pCi/L in the second floor living area, 0.760 pCi/L in the 1st floor living area and 0.525 pCi/L in the basement.

   Based on the radon zone classification and available test data, radon is not a significant environmental concern.

3. SENSITIVE ECOLOGICAL AREAS: Sensitive ecological areas include wetlands, rivers or creeks, marsh areas and land dedicated for open space. According to the U.S. Fish and Wildlife Service National Wetlands Inventory, there are no wetlands located on the subject property or adjoining properties.

4. FLOODING: Based on the Federal Emergency Management Agency (FEMA) Flood Insurance Map Community Panel No. 06013C0354G, dated March 21, 2017, the subject property is located within unshaded Zone X, defined as an area of minimal flood hazard.

5. MASS WASTING: No physical evidence of mass wasting, such as landslides or ground subsidence, was observed at the property.

6. OIL AND GAS WELLS: According to the California Department of Conservation, Department of Oil, Gas and Geothermal Resources map, no oil or natural gas production wells are located on or adjoining to the subject property.

E. SITE CHARACTERISTICS

1. PARKING: There is parking on unpaved surfaces around the residences.

2. ROADWAYS: The subject property is accessed from Lone Tree Way adjoining south.

3. FENCES: The subject property is surrounded by different types of fencing.

4. OUTSIDE STORAGE: Multiple bags with refuse, and storage of residential items, were observed around the 7590 and 7600 Lone Tree Way residences.

   A dilapidated, and currently unused, wooden enclosure was observed in the agricultural field north of 7590 and 7600 Lone Tree Way. The enclosure was likely previously used to house farm animals.

   A chicken coop was observed at 7590 Lone Tree Way.

   A large piece of discarded, possibly agricultural, equipment was observed in the agricultural field just north of 7650 Lone Tree Way.

5. BASEMENTS: There are no basements at 7590 and 7600 Lone Tree Way. AllWest was unable to ascertain if there are basements at 7650 Lone Tree Way.

6. WELLS: A groundwater well supplies potable water to 7590 and 7600 Lone Tree Way. If no longer planned for use in the future, the existing potable water supply well should be abandoned in accordance with regulatory agency requirements.

   The source of potable water at 7650 Lone Tree Way not observed during the site visit as the structures located on the east parcel were inaccessible. According to the previous 2013 Phase I ESA by BVNA, a domestic well was observed on the east side of 7650 Lone Tree Way. The well was not in use at that time and was described as an open hole about six inches in diameter. The unused well should be abandoned in accordance with regulatory agency requirements.

   According to the former owner interviewed for the 2013 Phase I ESA, Mr. Nicoletti, the domestic water supply well failed at 7650 Lone Tree Way (east parcel) at an undisclosed date and the property was connected to the well on the west parcel via a 900-foot pipeline that runs along the south property boundary. Mr. Nicoletti also stated the well on the west parcel is 110 feet deep and the depth to groundwater is approximately 50 feet below ground surface.

   If no longer planned for use in the future, the existing potable water supply well on the west parcel also should be abandoned in accordance with regulatory agency requirements.

   Although not observed, an agricultural water supply well may be present of the subject property, based on the former presence of orchards and a former agricultural irrigation system observed in the field.

   Should additional irrigation or potable water wells be located on the subject property in the future, they should be abandoned in accordance with regulatory agency requirements.

   The CCCEHD - Land Use Program, which oversees drilling and well permits, did not respond to AllWest's request for a public records review.

7. IRRIGATON SYSTEM: Remaining equipment/turnouts from a former irrigation system was observed in the agricultural field and around its perimeter.

8. SUMPS: No sumps were observed on the subject property.

9. STORM DRAINS: Storm water is presumed to infiltrate into the unpaved ground.

10. PONDS: No ponds or other surface water bodies were observed on the subject property.

11. SEWAGE SYSTEM: 7590 and 7600 Lone Tree Way were connected to the municipal sewer system in May 2016. Prior to this date, the residences were served by individual septic systems, which may remain on the subject property. According to the previous ESA by BVNA, the septic tank for 7590 Lone Tree Way was located at the rear (north side) of the building under a concrete slab; the septic tank for 7600 Lone Tree Way was located about 10 feet north of the building. Based on BVNA's field observations in 2013, the septic tank at 7600 Lone Tree Way appeared collapsed.

    AllWest was unable to ascertain the type of sewage system present at 7650 Lone Tree Way during this study. According to the previous ESA by BVNA, a septic system was reportedly located about 15 feet northwest of 7650 Lone Tree Way in the plowed field. No septic system was observed by BVNA, however, external plumbing on the north side of the residence was consistent with such a system.

    Should any septic systems remain on the subject property, they will require removal prior to redevelopment.

12. POTABLE WATER SYSTEM: As stated earlier, a groundwater well supplies potable water to 7590, 7600 and 7650 Lone Tree Way.

13. WASTEWATER SYSTEMS: No known wastewater treatment systems are present on the subject property, although septic systems have been documented as discussed in Section E.11.

14. POWER DISTRIBUTION SYSTEMS: No transformers were observed on the subject property during the sit visit. The subject property is serviced by Pacific Gas and Electric (PG&E).

    Overhead powerlines with pole-mounted transformers were observed along Lone Tree Way and a driveway west of 7590 and 7600 Lone Tree Way. No issues were observed with respect to this equipment.

15. PIPELINES: There are no underground gas transmission or hazardous liquid pipelines documented beneath or adjoining the subject property.

F. HAZARDOUS MATERIALS IN FACILITY AND OPERATIONAL SYSTEMS

1. BUILDING STRUCTURE AND MATERIALS: The buildings at 7590 and 7600 Lone Tree Way are of wood-frame construction.

   The buildings at 7650 Lone Tree Way were not accessed and no building permits were found; therefore, the building structure and materials are unknown.

ASBESTOS

AllWest observed the building premises for potential ACM such as floor coverings, and ceiling and wall materials. No samples were collected. Based on the age of the buildings and our observations during the site visit, ACM are presumed to be present in wallboard and caulking, vinyl floor covers and mastic.

Prior to demolition of site structures, a pre-demolition asbestos survey must be conducted by a licensed consultant. Identified ACMs must be appropriately abated by a licensed contractor.

LEAD-BASED PAINT

AllWest evaluated the building premises for potential LBP coatings such as ceilings, and exterior and interior walls. Due to the age of the on-site buildings, constructed prior to the 1978 federal ban on LBP, painted surfaces are suspected to include LBP.

Flaking LBP may have resulted in lead present in near-surface soil around the structure perimeters. The potential presence of lead in soil is considered a REC for the subject property.

Prior to demolition of site structures, a pre-demolition LBP evaluation must be conducted by a licensed contractor.

MOLD

No significant mold growth was observed inside 7590 and 6700 Lone Tree Way, other than some mold in the bathrooms.

The tenant of 7590 Lone Tree Way stated that water intrusion occurs at the doorway to the second floor bedroom during rainy periods. No mold was observed, however.

2. MECHANICAL AND HVAC SYSTEMS: What appeared to be natural gas heaters were observed inside 7590 and 7600 Lone Tree Way. The tenants stated that they do not use the heaters and did not think they were functional. A pilot light was observed in the heater at 7600 Lone Tree Way, however.

   An air conditioning unit was observed in one of the windows at 7590 Lone Tree Way.

3. BUILDING EQUIPMENT: No building equipment is present on the subject property.

4. INDUSTRIAL EQUIPMENT: No industrial equipment is present on the subject property.

G. HAZARDOUS AND NON-HAZARDOUS MATERIALS AND WASTES

1. MANUFACTURE/USE: Available historical sources, dating back to 1914, indicate the subject property was initially vacant and has been used for agricultural and residential purposes since at least the 1930s.

2. STORAGE: There is no regulated hazardous materials storage at the subject property. The CCCEHD had no records of hazardous materials storage at the subject property addresses.

   AllWest observed three approximately 5-gallon fuel containers, with a minimal amount of liquid, in the well enclosure on the west parcel. Other outside storage was discussed in Section E.4.

3. GENERATION AND DISPOSAL: Hazardous waste is not generated at the subject property. The subject property is not a recorded source of hazardous waste on regulatory agency databases.

4. UNDERGROUND STORAGE TANKS (USTs): No information documenting any USTs has been found. AllWest observed pipes on the east wall of the 7590 Lone Tree Way residence, however. The purpose of the pipes is unknown.

   Based on the age of the structures, we recommend conducting a UST survey to ascertain whether there are former heating oil USTs at the subject property.

5. ABOVEGROUND STORAGE TANKS (ASTs): No ASTs were observed on the subject property during the site visit, and no information documenting any ASTs has been found.

6. SOLID WASTE: Household waste is generated at the subject property. Garbage removal is facilitated by the City of Brentwood.

   As noted earlier, multiple bags with refuse, and storage of residential items, were also observed around the 7590 and 7600 Lone Tree Way residences.

7. MEDICAL WASTE: AllWest found no documented evidence of current or former generation and disposal of medical waste at the subject property.

H. POLLUTION SOURCES, CONTROLS AND TREATMENT

1. AIR: There are no sources of air emissions at the subject property. The Bay Area Air Quality Management District had no records for the subject property addresses. The subject property was not listed in the Emissions Inventory (EMI) database searched by EDR (Section I).

2. SOIL AND GROUNDWATER: The subject property is not a recorded source of soil or groundwater contamination.

   From at least the 1930s until the 1970s the subject property was cultivated with orchards. Based on this land use history, AllWest cannot discount the potential for residual agricultural chemicals, such as pesticides, herbicides and related metals, including arsenic and lead, to remain present in near-surface soils. Lead from flaking LBP and residentially applied pesticides and may also be present in shallow soil around the structure perimeters.

   The potential presence of these compounds in soil is considered a REC for the subject property. Should the subject property be redeveloped in the future, evaluation of soil quality immediately surrounding building footprints and in the agricultural fields for pesticides, herbicides and related metals (including lead and arsenic) may be required.

3. VAPOR INTRUSION: As part of our assessment AllWest evaluated the potential for vapor intrusion into property structures following the general methodology outlined in ASTM E-2600-15, utilizing professional judgment.

   The Tier 1 screening assessment was employed to determine if a potential vapor intrusion condition (VIC) exists at the site. The subject property, adjoining properties, and hydraulically up-gradient properties were assessed to determine known or suspect contaminated sites within approximate minimum search distances.

   A Tier 1 screening assessment consists of a search distance test to identify if there are any known or suspected contaminated sites within the primary and secondary areas of concern; a chemicals of concern test to determine if chemicals of concern exist at the known or suspected contaminates sites; and a plume test to determine whether or not chemicals of concern in the contaminated plume may be within the critical distance.

   The critical distance is defined as the linear distance in any direction from the nearest edge of the plume to the site. If the distance from the site to the nearest edge of a petroleum hydrocarbon plume is less than 30 feet or less than 100 feet for non-petroleum chemicals of concern, then it is presumed that a potential vapor intrusion condition (pVIC) exists and additional screening may be necessary.

   The potential for a VIC from current land use activities is considered very low as the property is used for residential purposes. The potential for a VIC from historical land use activities also is considered very low, as no significant use of hazardous materials has been documented.

   The potential for a VIC from surrounding land use also is considered very low due to the absence of suspect contaminated sites within 30/100 linear feet of the subject property.

METHANE

No known methane issues were reported for the property. There is no evidence the property is located within 1,000 feet of an active landfill, an active oil well or an abandoned/inactive oil well.

I. REGULATORY DATABASE SEARCH

To address on-site and off-site environmental concerns as provided by federal, tribal, state and local government records and recorded environmental clean-up liens, AllWest contracted the services of EDR. The purpose of the records search was to assess the potential presence of hazardous substance contamination at the subject property as a result of activities conducted on properties within the ASTM-designated search distances. A list of the state and federal regulatory databases searched, summary of findings and detailed records are presented in Appendix A.

Regulatory-listed sites and high-risk historical facilities identified by EDR as being within their approximate minimum search distances from the subject property on the ASTM-required databases are listed in Table 1, and summarized in Appendix A and their respective locations identified by number in Appendix A's figures. The number of sites shown in Table 1 may not exactly reflect what is provided in the EDR report due to multiple (duplicate) listings, outdated (historical databases), and differing minimum search radii as specified in ASTM E 1527-13. Additionally, some map locations shown on the EDR figures refer to more than one site, some sites are listed multiple times in the EDR report and some map locations shown on the EDR figures were determined by AllWest to be incorrect.

The EDR report listed several orphan sites (sites which addresses are as inadequate or incomplete as to render locating the site on a map ineffective) that could be within the approximate minimum search distances on the ASTM-required databases. Based on AllWest's review of the provided information, the orphan sites do not appear to be on or adjoining the subject property, or otherwise to be of significant concern.

When reviewing the EDR report AllWest was particularly interested in the regulatory status of sites within the search radius that were adjoining or hydraulically up-gradient to the subject site. In general, only up-gradient hazardous materials release sites represent a potential environmental impact to the subject property. Chemical release sites located hydraulically down-gradient or cross-gradient (perpendicular) are considered unlikely to impact the site.

The inferred groundwater flow direction beneath the subject property is to the east-northeast and northeast, making the sites located to the west-southwest and southwest up-gradient.

The subject property was not listed in any databases searched by EDR. A summary of the off-site database listings is included in Table 1.

Table 1. Regulatory Database Search Summary

Section	*Regulatory List*	*Search Radius*	*Number of Listed Sites within Search Radius*	*Number of Listings on Subject Property*
I.1	NPL	1 mile	None	None
I.2	RESPONSE	1 mile	None	None
I.3	RCRA – CORRACTS	1 mile	None	None
I.4	SEMS	½ mile	None	None
I.5	SEMS – ARCHIVE	½ mile	None	None
I.6	RCRA – TSDF	½ mile	None	None
I.7	RCRA Generators	Site & Adjoining	None	None
I.8	ERNS	Site	None	None
I.9	EnviroStor	1 mile	4	None
I.10	Toxic Pits	1 mile	None	None
I.11	CPS-SLIC	½ mile	None	None
I.12	State Landfills (SWF/LF)	½ mile	None	None
I.13	LUST	½ mile	None	None
I.14	Registered UST	Site & Adjoining	None	None
I.15	Registered AST	Site & Adjoining	None	None
I.16	Drycleaners	¼ mile	None	None
I.17	HAZNET	Site	None	None
I.18	EDR® Historical Auto Stations	1/8 mile	None	None
I.19	EDR® Historical Cleaners	1/8 mile	None	None
I.20	EDR® Manufactured Gas Plants	1 mile	None	None

1. **U.S. Environmental Protection Agency (EPA): National Priority List (NPL)**

The NPL is a U.S. EPA database listing of the United States' worst uncontrolled or abandoned hazardous waste sites. NPL sites are targeted for possible long-term remedial action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980. In addition, the NPL report includes information concerning cleanup agreements between the U.S. EPA and potentially Responsible Parties (commonly called Records of Decision, or RODS), any liens filed against contaminated properties, as well as the past and current U.S. EPA budget expenditures tracked within

the Superfund Consolidated Accomplishments Plan (SCAP). The search radius for NPL is one mile.

The subject property is not listed on the NPL. There are no NPL facilities within one mile of the subject property.

2. DTSC: Equivalent National Priority List (RESPONSE)

The RESPONSE database is a DTSC database listing of the State of California's NPL-equivalent sites. These confirmed release sites are generally high-priority and have a high potential risk. They are those where the DTSC is involved in remediation of the site. The search radius for RESPONSE is one mile.

The subject property is not listed on RESPONSE. There are no RESPONSE facilities within one mile of the subject property.

3. U.S. EPA: RCRA Information System Corrective Action (CORRACTS) Facilities

The RCRA-CORRACTS database contains information pertaining to hazardous waste treatment, storage, and disposal facilities (RCRA TSDFs) which have conducted, or are currently conducting, a corrective action(s) as regulated under the Resource Conservation and Recovery Act. The search radius for CORRACTS is one mile. The following information is included within the CORRACTS database:

- Information pertaining to the status of facilities tracked by the RCRA Administrative Action Tracking System (RAATS);
- Inspections and evaluations conducted by Federal and State agencies;
- All reported facility violations, the environmental statute(s) violated, and any proposed and actual penalties; and
- Information pertaining to corrective actions undertaken by the facility or U.S. EPA.

The subject property is not listed on CORRACTS. There are no CORRACTS facilities listed within one mile of the subject property.

4. U.S. EPA: Superfund Enterprise Management System (SEMS)

The SEMS database, formerly known as CERCLIS, is a comprehensive listing of known or suspected uncontrolled or abandoned hazardous waste sites. These sites have either been investigated, or are currently under investigation, by the U.S. EPA for the release or threatened release of hazardous substances. Once a site is placed in the SEMS, it may be subjected to several levels of review and evaluation, and ultimately placed on the NPL. The search radius for SEMS is ½ mile.

The subject property is not listed on SEMS. There are no SEMS facilities within ½ mile of the subject property.

5. U.S. EPA: SEMS-ARCHIVE Sites

The SEMS-ARCHIVE database, formerly known as CERCLIS-NFRAP, contains information pertaining to sites, which have been removed from the U.S. EPA's SEMS database. Sites listed in the SEMS-ARCHIVE may be sites where, following an initial investigation, either no contamination was found, contamination was removed quickly without need for the site to be placed on the NPL, or the contamination was not serious enough to require federal Superfund action or NPL consideration. The search radius for the SEMS-ARCHIVE is ½ mile.

The subject property is not listed on SEMS-ARCHIVE. There are no SEMS-ARCHIVE facilities within ½ mile of the subject property.

6. U.S. EPA: RCRA - Treatment, Storage and Disposal Facilities (TSDF)

The RCRA-TSDF is a U.S. EPA listing of facilities that were permitted under RCRA to perform on-site treatment, storage or disposal of hazardous wastes. The search radius for RCRA-TSDF is ½ mile. The sites listed in RCRA-TSDF do not necessarily pose an environmental threat to the surrounding properties, because the TSDF permit imposes stringent monitoring and reporting requirements. The following information is also included in the RCRA-TSDF database:

- Information pertaining to the status of facilities tracked by the RCRA-RAATS;
- Inspections and evaluations conducted by federal and state agencies; and
- All reported facility violations, the environmental statute(s) violated, and any proposed and actual penalties.

The subject property is not listed as an RCRA-TSDF. There are no RCRA-TSDFs within ½ mile of the subject property.

7. U.S. EPA: RCRA Generators List

The RCRA Generators list is a U.S. EPA listing of facilities that generate hazardous wastes or meet other applicable waste generating requirements under RCRA. The facilities listed on the RCRA Generators list have not necessarily released hazardous waste

into the environment or pose an environmental threat to the surrounding properties. These listed sites are required to properly contain the wastes generated and remove their wastes from the site within 90 days. Furthermore, the facilities that report waste generation activities are more inclined to perform the required monitoring. The search radius for RCRA Generators list is the subject property and adjoining properties.

The subject property is not listed in the RCRA generators database. There are no RCRA generators adjoining the subject property.

8. U.S. EPA: Emergency Response Notification System (ERNS) List

The ERNS list is a U.S. EPA maintained list of reported incidents that concerning the sudden and/or accidental release of hazardous substances, including petroleum, into the environment. The search radius for ERNS is the subject property.

The subject property is not listed on the ERNS list.

9. DTSC: EnviroStor Sites

The EnviroStor database is a DTSC listing of sites under investigation, that could be actually or potentially contaminated and that may present a possible threat to human health and the environment. The search radius for EnviroStor is one mile.

The subject property is not on the EnviroStor list.

There are four EnviroStor site listed within one mile of the subject property. The closest EnviroStor site, Leroy Dutra at 2340 Smith Lane, is a large site located approximately 300 feet south and cross- to up-gradient of the subject property. This is a proposed school site, currently under investigation for impacts to soil from past agricultural practices and a gasoline UST removed from the property. The UST was located approximately 1,000 feet south of the subject property. As impacts at this site are limited to soil, they are not of significant environmental concern to the subject property.

Meritage Homes of Northern California Inc. at 7281 Lone Tree Way (also referred to as Skipolini Property) is located 1/3 mile southwest and up-gradient of the subject property. This is an active voluntary clean-up site. Shallow soil beneath this site was found to be contaminated with lead. No groundwater impacts are suspected or have been investigated. A proposed removal action has been prepared for this site. Based on shallow soil impacts with lead, which is considered immobile in soil, this listing is not of environmental concern to the subject property.

The other two EnviroStor sites are located more than ½ mile down- and cross-gradient from the subject property, therefore, they are not of environmental concern.

10. DTSC: Toxic Pits Cleanup Act Sites (Toxic Pits; TPCA)

The TPCA is a DTSC listing of hazardous waste cleanup sites regulated pursuant to the California Toxic Pits Cleanup Act (Toxic Pits). It identifies sites suspected of containing hazardous substances where cleanup has not yet been completed. We note, this database has not been updated since July 1995. The search radius for the TPCA list is one mile.

The subject property is not listed on the TPCA site list. There are no Toxic Pit sites located within one mile of the subject property.

11. RWQCB: Cleanup Program Sites (CPS)-Spills, Leaks, Investigations, and Cleanup (SLIC)

The CPS-SLIC is a California RWQCB listing of sites that have reported spills, leaks, investigative activities, and/or cleanup actions. The search radius for the CPS-SLIC list is ½ mile.

The subject property is not listed on the CPS-SLIC list. There are no CPS-SLIC listings within ½ mile of the subject property.

12. California Integrated Waste Management Board: Solid Waste Information System (SWF/LF) Facilities

The SWF/LF is a California Integrated Waste Management Board (CIWMB) listing of all permitted active, inactive or closed landfills. The search radius for SWF/LF is ½ mile.

The subject property is not listed on the SWF/LF list. There are no SWF/LF sites within ½ mile of the subject property.

13. SWRCB: Leaking Underground Storage Tanks (LUST)

The LUST list is a RWQCB listing of sites that have reported leaking USTs. A site may be listed on LUST by reporting the tank system(s) failed tank testing, that routine monitoring of tank system(s) showed evidence of leakage, or that verification sampling during tank removal showed subsurface contamination.

Fuel leak case research conducted at the Lawrence Livermore National Laboratory indicates that attenuation and degradation play major roles in reducing hydrocarbons in groundwater to non-detectable levels within several hundred feet of the contaminant source. Research findings indicate that in over 90 percent of the petroleum hydrocarbon

cases, groundwater contaminant plumes do not extend more than 250 feet from the source. The mobility of a gasoline additive called Methyl Tertiary Butyl Ether (MTBE) is currently being researched. Preliminary findings indicate that MTBE is highly soluble in water and moves easily through soil particles and into groundwater where it may spread over a distance greater than 250 feet. MTBE will transfer to groundwater from gasoline leaking from USTs, pipelines, car emissions into the atmosphere and other components of gasoline vapor distribution. MTBE has been an additive to gasoline since approximately 1985, but banned in California since 2004.

The subject property is not listed as a LUST site. There are no LUST listings within ½ mile of the subject property.

14. SWRCB: Registered Underground Storage Tank (RUST) List

The RWQCB Underground Storage Tank Program maintains a list of registered USTs in the site area. The sites listed on the RUST list have not necessarily released hazardous substances into the environment or pose an environmental threat to the surrounding properties. Since Federal and California UST regulations require periodic monitoring for UST leakage and the immediate reporting of evidence of UST leakage, only those sites listed on the LUST list have the potential of environmental impact. The search radius for the RUSTs is the subject property and adjoining properties.

The subject property is not listed on the RUST list or on historical UST lists (e.g., CA FID UST; HIST UST; SWEEPS UST). There are no adjoining UST facilities listed in EDR's report.

15. California EPA: Registered Aboveground Storage Tank (RAST) List

The RWQCB Aboveground Storage Tank Program maintains a list of registered aboveground storage tanks (ASTs) in the site area. The sites listed on the RAST list have not necessarily released hazardous substances into the environment or pose an environmental threat to the surrounding properties. The search radius for the RAST list is the subject property and adjoining properties.

The subject property is not listed on the RAST list. There are no reported RAST sites adjoining the subject property.

16. DTSC: Hazardous Waste Information System (HAZNET) List

The data on the HAZNET list is extracted from the copies of hazardous waste manifests received each year by the DTSC. The volume of manifests is typically 700,000 to 1,000,000 annually, representing approximately 350,000 to 500,000 shipments. Data from the manifests is submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category and disposal method. The search radius for HAZNET is the subject property.

The subject property is not listed on the HAZNET database.

17. Drycleaners

This is a list of drycleaner facilities that have an EPA ID number. The search radius for drycleaners is ¼ mile.

The subject property is not on the drycleaner list. There are no drycleaners listed within ¼ mile of the subject property.

18. EDR® Historical Auto Stations

EDR maintains a proprietary list of possible historical automotive repair shops and gasoline stations derived from city directories, telephone directories and other historical sources.

The subject property is not listed as a historical auto station. There are no historical auto station listings reported within 1/8 mile of the subject property.

19. EDR® Historical Cleaners

EDR® maintains a proprietary list of possible historical dry cleaner businesses derived from city directories, telephone directories and other historical sources.

The subject property is not listed as a historical dry cleaner. There are no historical dry cleaners reported within 1/8 mile of the subject property.

20. EDR® Historical Manufactured Gas Plants

EDR maintains a proprietary list of coal gas plants (manufactured gas plants) derived from city directories, telephone directories and other historical sources.

The subject property is not listed as an historical manufactured gas plant. There are no historical manufactured gas plants reported within one mile of the subject property.

Summary

EDR's agency database search identified no current or historical releases or other conditions at the subject property appearing likely to have significantly impacted the underlying soil, soil vapor or groundwater resources.

The agency database search found no surrounding or adjoining sites that appear likely to have significantly impacted the soil, soil vapor or groundwater resources underlying the subject property.

AllWest's review of federal, tribal, state and local government records did not encounter data gaps that diminish our ability to provide an opinion on a release or potential release of hazardous substances at the subject property.

VII. INFORMATION SOURCES

A. HISTORICAL SOURCES

Aerial Photographs

EDR Aerial Photo Decade Package, March 3, 2021, Environmental Data Resources, Inc.

City Directories

EDR City Directory Image Report, March 8, 2021, Environmental Data Resources, Inc.

Sanborn Maps

EDR Certified Sanborn Map Report, March 3, 2021, Environmental Data Resources, Inc.

Topographic Maps

EDR Historical Topo Map Report, March 3, 2021, Environmental Data Resources, Inc.

B. ENVIRONMENTAL AGENCY DATABASES

EDR Radius Map Report with Geocheck, March 3, 2021, Environmental Data Resources, Inc.

RWQCB GeoTracker database website: http://geotracker.waterboards.ca.gov

DTSC EnviroStor database website: http://www.EnviroStor.dtsc.ca.gov/public

DTSC Regulated Site Portal database website: https://siteportal.calepa.ca.gov/nsite/map/results

C. ENVIRONMENTAL STUDIES AND SOURCES

Alquist-Priolo Special Studies Zones Act, Special Publication No. 42, 1997
California Division of Mines and Geology

California Statewide Radon Survey, 1990
California Department of Health Services

California's Groundwater, Bulletin 118, Update 2004, California Department of Water Resources

Vapor Encroachment Screening Under the Newly-Revised ASTM E 2600-10 Standard, Anthony J. Buonicore, em Magazine, Feb, 2011.

California Department of Conservation, Division of Oil, Gas and Geothermal Resources Well Finder, 2013: http://www.conservation.ca.gov/dog/Pages/WellFinder.aspx

D. BUILDING, PLANNING AND ASSESSOR

Community Development – Building and Planning, City Hall, 150 City Park Way, Brentwood, CA 94513, Contact: (925) 516-5400.

Contra Costa County Assessor-Recorder's Office, 2530 Arnold Drive, Suite 100, Martinez, CA 94553-4359. Contact: (925) 313-7400.

E. FIRE AND ENVIRONMENTAL HEALTH/CUPA

East Contra Costa Fire Protection District, 150 City Park Way #1335, Brentwood, CA. Contact: (925) 634-3400.

Contra Costa Health Services, Hazardous Materials Program, 4585 Pacheco Blvd., Suite 100, Martinez, CA 94553. Contact: (925) 335-3200.

F. WATER QUALITY

Contra Costa County Environmental Health – Land Use Program, 2120 Diamond Blvd. Suite 100, Concord, CA 94520, Contact: (925) 608-5500.

G. AIR QUALITY

Bay Area Air Quality Management District 375 Beale Street, San Francisco, California 94105, Contact: 415-749-4900.

H. PREVIOUS ENVIRONMENTAL REPORTS

Phase I Environmental Site Assessment, Three Agricultural Parcels, 7560 to 7650 Lone Tree Way, Brentwood, California, Bureau Veritas, July 15, 2013, prepared for Diocese of Oakland.

Description of Selected General Terms and Acronyms

Term/Acronym	Description
ACM	Asbestos Containing Material. Asbestos is a naturally occurring mineral, three varieties of which (chrysotile, amosite, crocidolite) have been commonly used as fireproofing or binding agents in construction materials. Exposure to asbestos, as well as ACM, has been documented to cause lung diseases including asbestosis (scarring of the lung), lung cancer and mesothelioma (a cancer of the lung lining).Regulatory agencies have generally defined ACM as a material containing greater that one (1) percent asbestos, however some states (e.g. CA) define ACM as materials having 0.1% asbestos.
AHERA	Asbestos Hazard Emergency Response Act
AOC	Area of Concern
APN	Assessor's Parcel Number
AST	Aboveground Storage Tanks. ASTs are generally described as storage tanks less than 10% of which are below ground (i.e., buried). Tanks located in a basement, but not buried, are also considered ASTs. Whether, and the extent to which, an AST is regulated, is determined on a case-by-case basis and depends upon tank size, its contents and the jurisdiction of its location.
ASTM	American Society for Testing and Materials
AULs	Liens or Activity and Use Limitations
BAAQMD	Bay Area Air Quality Management District
bgs	Below Ground Surface
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes. BTEX are VOC components found in gasoline and commonly used as analytical indicators of a petroleum hydrocarbon release.
BTU/hr	British Thermal Units per hour
Cal/EPA	California Environmental Protection Agency, also known as DTSC
CD	Critical Distance
CFR	Code of Federal Regulations
COC	Contaminant of Concern
CREC	Controlled Recognized Environmental Condition is defined in ASTM E1527-13 as “a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority) , with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).
Data Gap / Significant Data Gap	A lack of or inability to obtain information required by the practice despite good faith efforts by the environmental professional to gather such information. A data gap is significant if other information and/or professional experience raises concerns involving the data gap.
De minimis Condition	A condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.
DOGGR	California Department of Conservation, Department of Oil, Gas and Geothermal Resources
DTSC	California Department of Toxic Substances Control
EDR	Environmental Data Resources
EMI	Emissions Inventory Data
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
ESL	Environmental Screening Level
FEMA	Federal Emergency Management Agency
HAZNET	DTSC Hazardous Waste Information System
Hazardous Substance	As defined under CERCLA, this is (A) any substance designated pursuant to section 1321(b)(2)(A) of Title 33, (B) any element, compound, mixture, solution, or substance designated pursuant to section 9602 of this title; (C) any hazardous waste having characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (with some exclusions); (D) any toxic pollutant listed under section 1317(a) of Title 33; (E) any hazardous air pollutant listed under section 112 of the Clean Air Act; and (F) any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action under section 2606 of Title 15. This term does not include petroleum, including crude oil or any fraction thereof

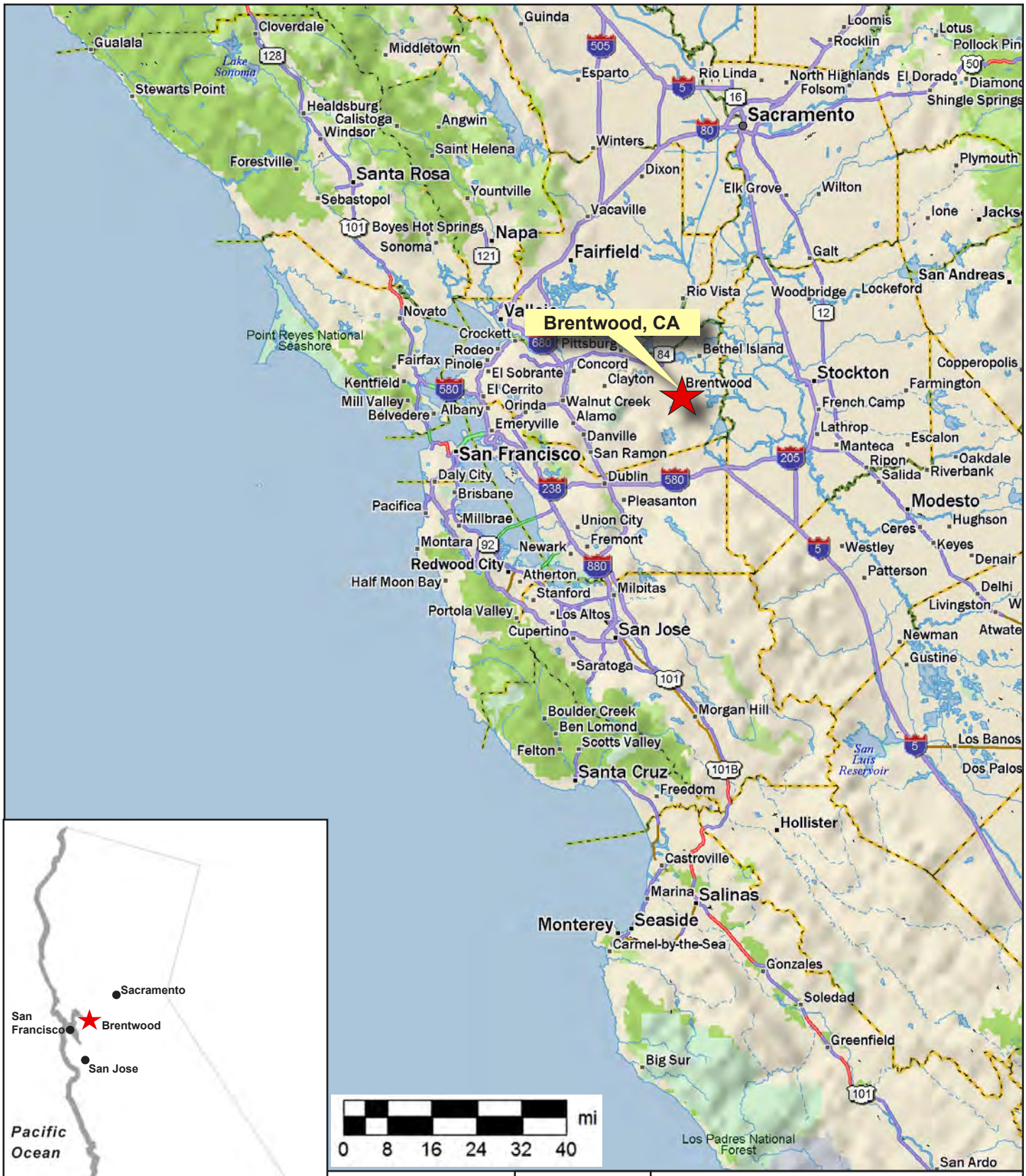
	which is not otherwise listed as a hazardous substance under subparagraphs (A) through (F) above, and the term include natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).
Hazardous Waste	This is defined as having characteristics identified or listed under section 3001 of the Solid Waste Disposal Act (with some exceptions). RCRA, as amended by the Solid Waste Disposal Act of 1980, defines this term as a "solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed."
HMBP	Hazardous Materials Business Plan
HMMP	Hazardous Materials Management Plan
HREC	Historical Recognized Environmental Condition is defined in ASTM E1527-13 as "a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted residential use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).
HVAC	Heating, Ventilation and Air Conditioning
LNAPL	Light Non-Aqueous Phase Liquid
LOP	Local Oversight Program
LQG	Large Quantity Generators
LUST	Leaking Underground Storage Tank. This is a federal term set forth under RCRA for leaking USTs. Some states also utilize this term.
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MCL	Maximum Contaminant Level. This Safe Drinking Water concept (and also used by many states as a ground water cleanup criteria) refers to the limit on drinking water contamination that determines whether a supplier can deliver water from a specific source without treatment.
MSDS	Material Safety Data Sheets. Written/printed forms prepared by chemical manufacturers, importers and employers which identify the physical and chemical traits of hazardous chemicals under OSHA's Hazard Communication Standard.
MSL	Mean Sea Level
MtBE	Methyl tertiary Butyl Ether
ND	Not Detected
NE	Not Established
NESHAP	National Emissions Standard for Hazardous Air Pollutants (Federal Clean Air Act). This part of the Clean Air Act regulates emissions of hazardous air pollutants.
NFA	No Further Action
NPDES	National Pollutant Discharge Elimination System (Clean Water Act). The federal permit system for discharges of polluted water.
NV	No Value
O&M Plan	Operations and Maintenance Plan
OSHA	Occupational Safety and Health Administration or Occupational Safety and Health Act
PACM	Presumed Asbestos-Containing Material. A material that is suspected of containing or presumed to contain asbestos but which has not been analyzed to confirm the presence or absence of asbestos.
PCBs	Polychlorinated Biphenyls. A halogenated organic compound commonly in the form of a viscous liquid or resin, a flowing yellow oil, or a waxy solid. This compound was historically used as dielectric fluid in electrical equipment (such as electrical transformers and capacitors, electrical ballasts, hydraulic and heat transfer fluids), and for numerous heat and fire sensitive applications.
pCi/L	picoCuries per Liter of air. Unit of measurement for radon and similar radioactive materials.
PE	Professional Engineer
PG&E	Pacific Gas and Electric Company
PLM	Polarized Light Microscopy (see ACM section of the report, if included in the scope of services)
ppb	parts per billion
ppm	parts per million

pVIC	Potential Vapor Intrusion Condition
Radon	A radioactive gas resulting from radioactive decay of naturally-occurring radioactive materials in rocks and soils containing uranium, granite, shale, phosphate, and pitchblende. Exposure to elevated levels of radon creates a risk of lung cancer; this risk generally increases as the level of radon and the duration of exposure increases. Radon can accumulate in building basements or similar enclosed spaces to levels that can pose a risk to human health. Indoor radon concentrations depend primarily upon the building's construction, design and the concentration of radon in the underlying soil and ground water.
REC	Recognized Environmental Conditions are defined by ASTM E1527-13 as “the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: 1) due to any release to the environment; 2) under conditions indicative of a release to the environment. *De minimis* conditions are not recognized environmental conditions.”
RWQCB	California Regional Water Quality Control Board
SLIC	Spills, Leaks, Investigations And Cleanup
SPCC	Spill Prevention, Control and Countermeasures. SPCC plans are required under federal law (Clean Water Act and Oil Pollution Act) for any facility storing petroleum in tanks and/or containers of 55-gallons or more that when taken in aggregate exceed 1,320 gallons. SPCC plans are also required for facilities with underground petroleum storage tanks with capacities of over 42,000 gallons. Many states have similar spill prevention programs, which may have additional requirements.
SQG	Small Quantity Generator
SWRCB	State Water Resources Control Board
TPH (d)(g)(mo)	Total Petroleum Hydrocarbons (d) as diesel (g) as gasoline (mo) as motor oil
ug/kg	micrograms per kilogram
ug/L	micrograms per liter
USGS	United States Geological Survey
UST	Underground Storage Tank. Most federal and state regulations, as well as ASTM E1527-13, define this as any tank, incl. underground piping connected to the tank, that is or has been used to contain hazardous substances or petroleum products and the volume of which is 10% or more beneath the surface of the ground (i.e., buried).
VEC	Vapor Encroachment Condition
VOCs	Volatile Organic Compounds
Wetlands	Areas that are typically saturated with surface or ground water that creates an environment supportive of wetland vegetation (i.e., swamps, marshes, bogs).

FIGURES

DELORME

Topo USA® 8



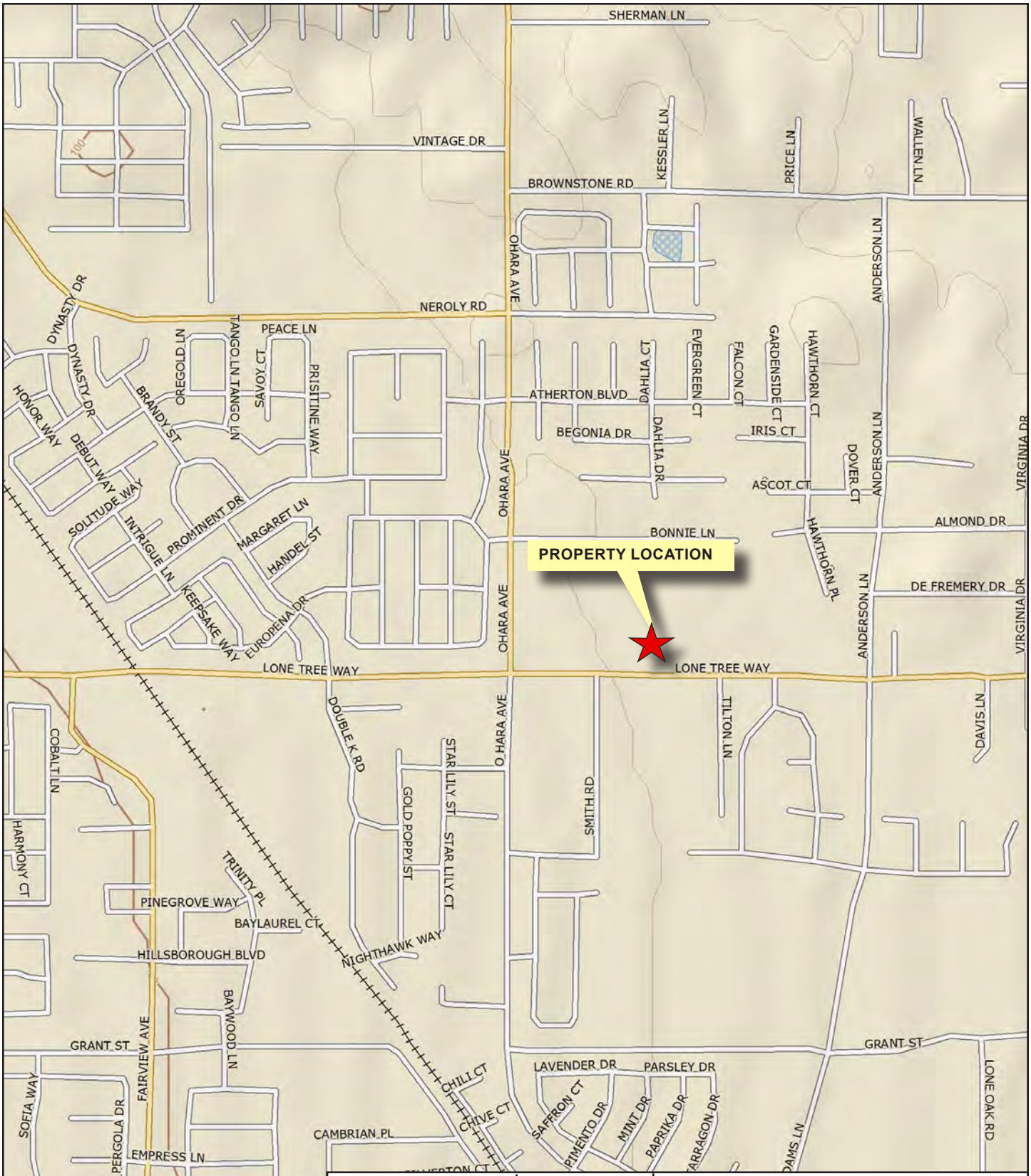
AllWest

PROJECT NO. 202142.20

REGIONAL MAP
FIGURE 1
7590, 7600 & 7650 LONE TREE WAY
BRENTWOOD, CA 94513
SOURCE: DELORME TOPO
PREPARED BY: D. CAMACHO
DATE: 4/2/21

DELORME

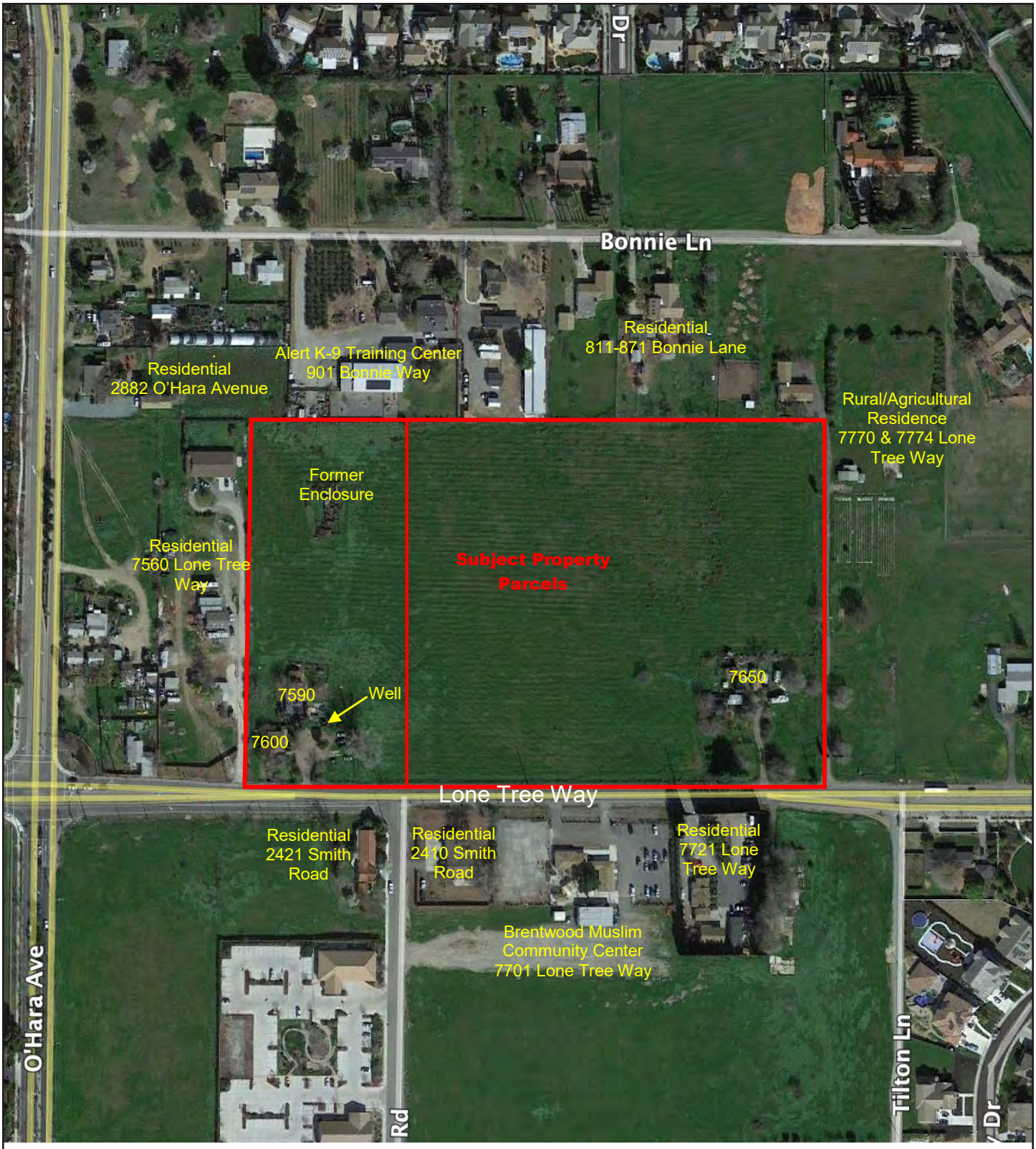
Topo USA® 8



AllWest

PROJECT NO. 202142.20

VICINITY MAP
FIGURE 2
7590, 7600 & 7650 LONE TREE WAY
BRENTWOOD, CA 94513
SOURCE: DELORME TOPO
PREPARED BY: D. CAMACHO
DATE: 4/2/21



N

AllWest

PROJECT NO.
202142.20

AERIAL
FIGURE 3
7590, 7600 & 7650 LONE TREE WAY
BRENTWOOD, CA 94513
SOURCE: GOOGLE
PREPARED BY: K. BARBERI / D. CAMACHO
DATE: 4/2/21

PHOTOGRAPHS

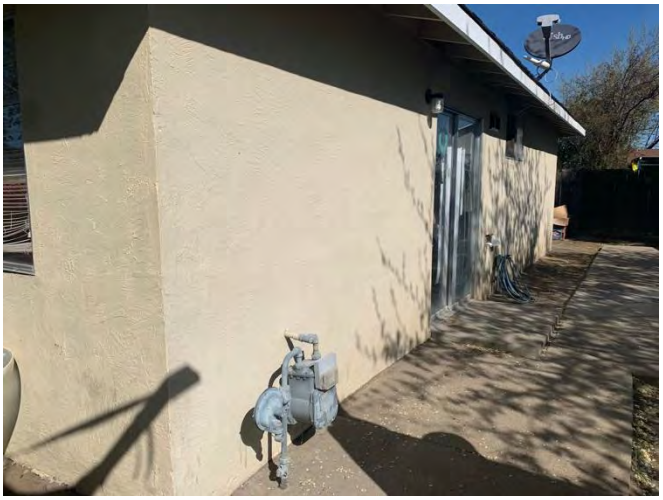
1. South façade of 7590 Lone Tree Way

2. North façade of 7590 Lone Tree Way

3. East façade of 7590 Lone Tree Way

4. South façade of 7600 Lone Tree Way

5. North façade of 7600 Lone Tree Way



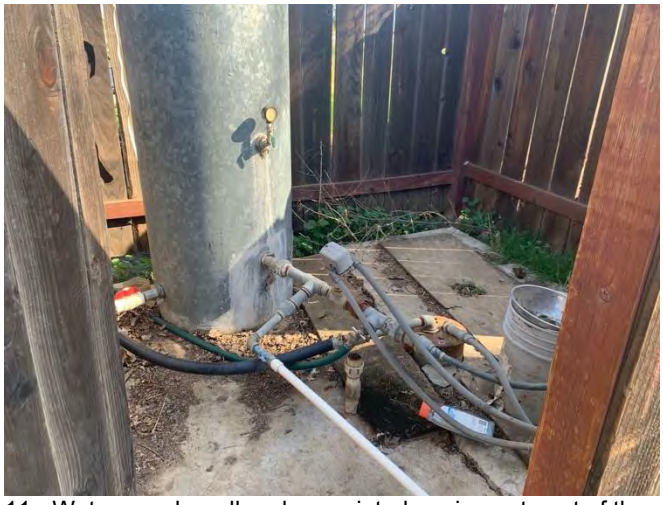
6. East façade of 7600 Lone Tree Way

7. West façade of 7600 Lone Tree Way with refuse storage

8. Trash storage north of 7600 Lone Tree Way

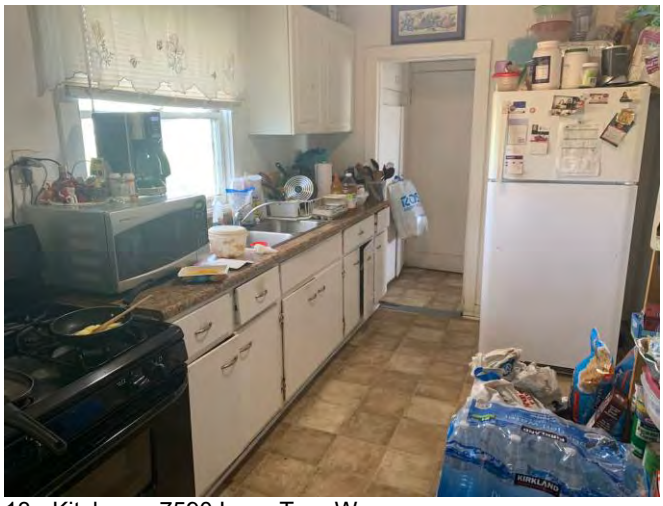
9. Outdoor Area east of 7590 Lone Tree Way

10. Pipes on the east wall of 7590 Lone Tree Way

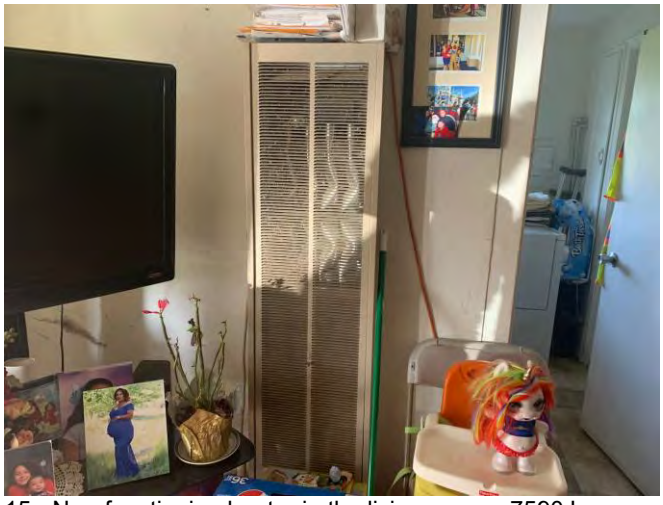


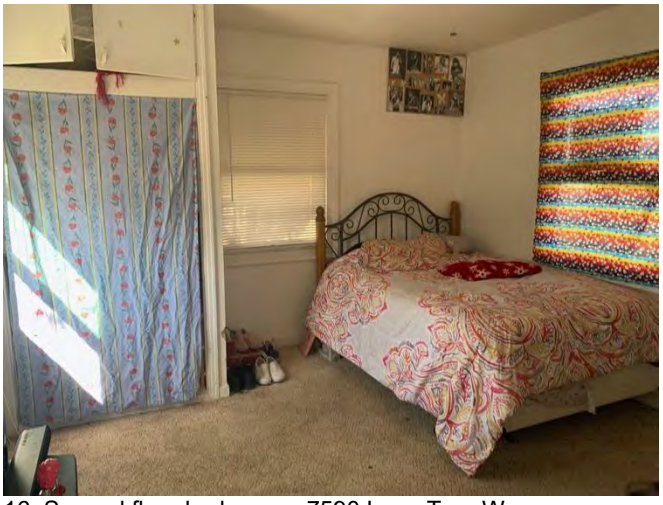
11. Water supply well and associated equipment east of the residences at 7590 & 7600 Lone Tree Way

12. Mostly empty fuel containers inside well enclosure

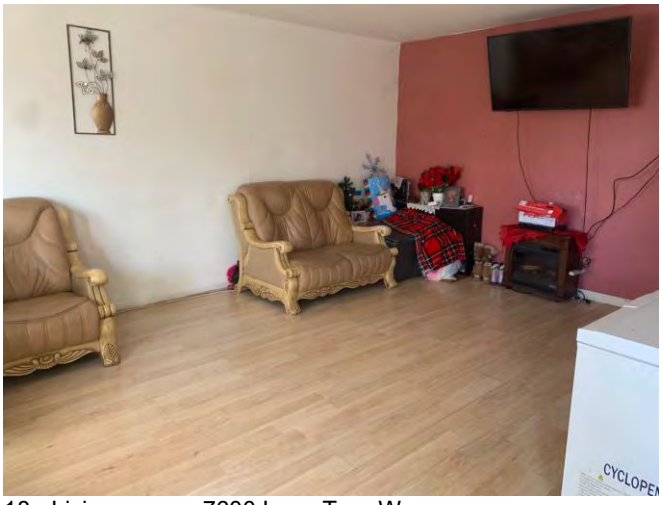

13. Kitchen – 7590 Lone Tree Way

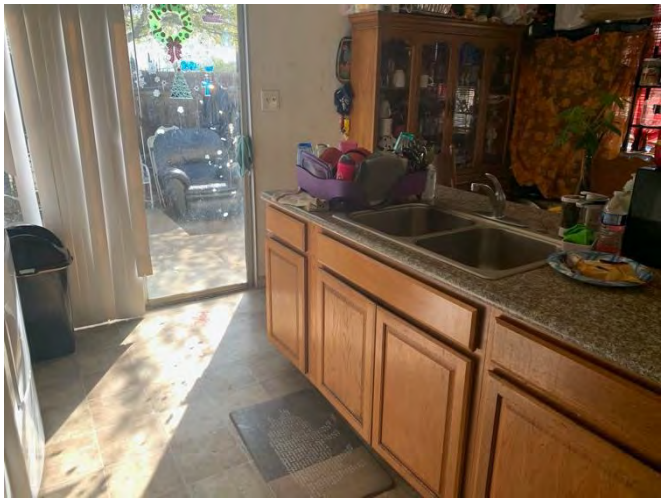
14. Bathroom – 7590 Lone Tree Way


15. Non-functioning heater in the living room – 7590 Lone Tree Way


16. Second floor bedroom – 7590 Lone Tree Way

17. Heater in the living room – 7600 Lone Tree Way


18. Living room – 7600 Lone Tree Way



19. Kitchen – 7600 Lone Tree Way

20. Dilapidated enclosure north of 7590 & 7600 Lone Tree Way

21. Former irrigation system

22. Former irrigation system

23. Fallow field looking south toward 7650 Lone Tree Way

24. View of structures at 7650 Lone Tree Way, a large piece of discarded equipment on the left

25. View of 7650 Lone Tree Way

26. Property adjoining south

27. Property adjoining west

28. Property adjoining east

29. Property adjoining north

30. Property adjoining north

APPENDIX A

7590, 7600 & 7650 Lone Tree Way
7590, 7600 & 7650 Lone Tree Way
Brentwood, CA 94513

Inquiry Number: 6390789.2s
March 03, 2021

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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Map Findings Summary	4
Map Findings	9
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Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
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Physical Setting SSURGO Soil Map	A-5
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Physical Setting Source Records Searched	PSGR-1

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 (E 1527-13), 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

7590, 7600 & 7650 LONE TREE WAY
BRENTWOOD, CA 94513

COORDINATES

Latitude (North):	37.9625490 - 37˚ 57' 45.17''
Longitude (West):	121.7108350 - 121˚ 42' 39.00''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	613247.9
UTM Y (Meters):	4202238.0
Elevation:	78 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5640376 BRENTWOOD, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140606
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
7590, 7600 & 7650 LONE TREE WAY
BRENTWOOD, CA 94513

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	BLUMEN, BETTY J	2801 O'HARA AVE	CONTRA COSTA CO. SITE LIST	Higher	491, 0.093, NW
2	GEORGE D DRAKE	1091 BEAU AVE	RCRA NonGen / NLR	Higher	636, 0.120, WNW
A3	PROPOSED FOURTH MIDD	2340 SMITH ROAD	US BROWNFIELDS, FINDS	Higher	1078, 0.204, South
A4	DUTRA, LEROY	SMITH LN	ENVIROSTOR, SCH, SWEEPS UST, CA FID UST, CONTRA...	Higher	1078, 0.204, South
5	PAPINI		MINES	Lower	1191, 0.226, NNE
6	MERITAGE HOMES OF NO	7281 LONE TREE WAY	ENVIROSTOR, VCP, HAZNET, HWTS	Higher	1923, 0.364, WSW
7	ZOCCHI ELEMENTARY SC	BROWNSTONE ROAD/ANDE	ENVIROSTOR, SCH	Lower	3239, 0.613, NE
8	LA PALOMA	6651 LONE TREE WAY	ENVIROSTOR, SCH, CERS	Higher	4893, 0.927, West

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

Federal NPL site list

NPL ..... National Priority List
Proposed NPL ..... Proposed National Priority List Sites
NPL LIENS ..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ..... Federal Facility Site Information listing
SEMS ..... Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ..... Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

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

EXECUTIVE SUMMARY

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROLS..... Institutional Controls Sites List

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

LUST..... Geotracker's Leaking Underground Fuel Tank Report
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
CPS-SLIC..... Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing
UST..... Active UST Facilities
AST..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

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
ODI..... Open Dump Inventory
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
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
Toxic Pits..... Toxic Pits Cleanup Act Sites

EXECUTIVE SUMMARY

CERS HAZ WASTE	CERS HAZ WASTE
US CDL	National Clandestine Laboratory Register
PFAS	PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

HIST UST	Hazardous Substance Storage Container Database
CERS TANKS	California Environmental Reporting System (CERS) Tanks

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

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

EXECUTIVE SUMMARY

US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
DOCKET HWC	Hazardous Waste Compliance Docket Listing
UXO	Unexploded Ordnance Sites
ECHO	Enforcement & Compliance History Information
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
MWMP	Medical Waste Management Program Listing
NPDES	NPDES Permits 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
CIWQS	California Integrated Water Quality System
CERS	CERS
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

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	Recovered Government Archive Solid Waste Facilities List

EXECUTIVE SUMMARY

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

State- and tribal - equivalent CERCLIS

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 10/26/2020 has revealed that there are 4 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DUTRA, LEROY Facility Id: 60000916 Status: Active	***SMITH LN***	***S 1/8 - 1/4 (0.204 mi.)***	***A4***	***16***
MERITAGE HOMES OF NO Facility Id: 60002296 Status: Active	***7281 LONE TREE WAY***	***WSW 1/4 - 1/2 (0.364 mi.)***	***6***	***24***
LA PALOMA Facility Id: 07010008 Status: No Further Action	***6651 LONE TREE WAY***	***W 1/2 - 1 (0.927 mi.)***	***8***	***34***

Lower Elevation	Address	Direction / Distance	Map ID	Page
ZOCCHI ELEMENTARY SC Facility Id: 60000254 Status: No Further Action	***BROWNSTONE ROAD/ANDE***	***NE 1/2 - 1 (0.613 mi.)***	***7***	***29***

State and tribal voluntary cleanup sites

VCP: 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.

A review of the VCP list, as provided by EDR, and dated 10/26/2020 has revealed that there is 1 VCP site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MERITAGE HOMES OF NO Status: Active Facility Id: 60002296	***7281 LONE TREE WAY***	***WSW 1/4 - 1/2 (0.364 mi.)***	***6***	***24***

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: The EPA's listing of Brownfields properties from the Cleanups in My Community program, which provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

A review of the US BROWNFIELDS list, as provided by EDR, and dated 12/11/2020 has revealed that there is 1 US BROWNFIELDS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PROPOSED FOURTH MIDD Cleanup Completion Date: - ACRES property ID: 133703	***2340 SMITH ROAD***	***S 1/8 - 1/4 (0.204 mi.)***	***A3***	***13***

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 10/26/2020 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
DUTRA, LEROY Facility Id: 60000916 Status: Active	***SMITH LN***	***S 1/8 - 1/4 (0.204 mi.)***	***A4***	***16***

EXECUTIVE SUMMARY

Local Lists of Registered Storage Tanks

SWEEPS UST: 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.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there is 1 SWEEPS UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DUTRA, LEROY Comp Number: 30096	***SMITH LN***	***S 1/8 - 1/4 (0.204 mi.)***	***A4***	***16***

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there is 1 CA FID UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DUTRA, LEROY Facility Id: 07000800 Status: I	***SMITH LN***	***S 1/8 - 1/4 (0.204 mi.)***	***A4***	***16***

Other Ascertainable Records

RCRA NonGen / NLR: 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.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/14/2020 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GEORGE D DRAKE EPA ID:: CAR000094896	1091 BEAU AVE	WNW 0 - 1/8 (0.120 mi.)	2	9

MINES: A listing of mine site locations from the Office of Mine Reclamation.

A review of the MINES list, as provided by EDR, and dated 12/07/2020 has revealed that there is 1 MINES site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
PAPINI		NNE 1/8 - 1/4 (0.226 mi.)	5	23

EXECUTIVE SUMMARY

CONTRA COSTA CO. SITE LIST: Lists includes sites from the Underground Tank Program, Hazardous Waste Generator Program & Business Plan 12185 Program

A review of the CONTRA COSTA CO. SITE LIST list, as provided by EDR, and dated 10/19/2020 has revealed that there are 2 CONTRA COSTA CO. SITE LIST sites within approximately 0.25 miles of the target property.

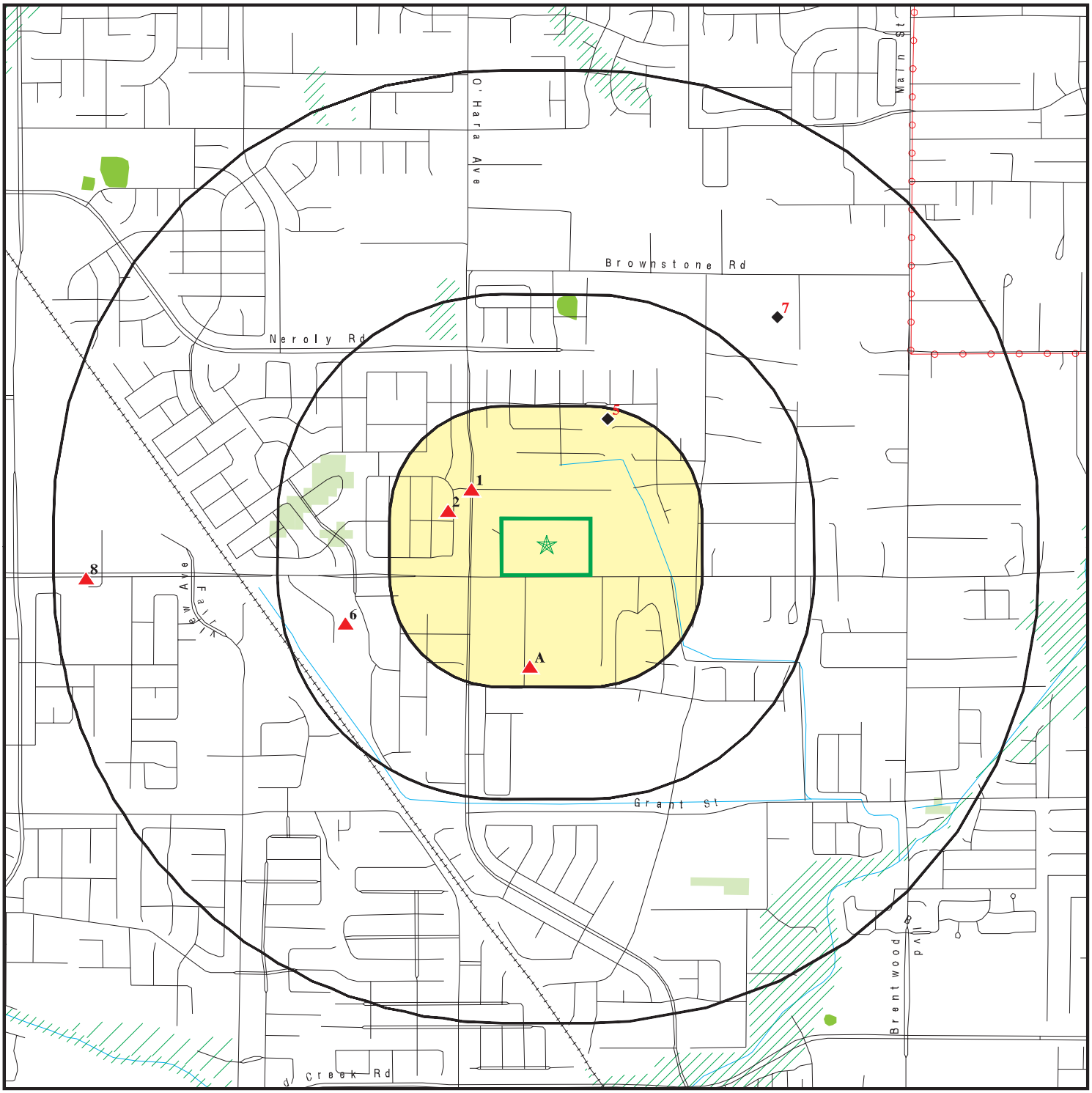
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BLUMEN, BETTY J Facility Id: FA0032326	2801 O'HARA AVE	NW 0 - 1/8 (0.093 mi.)	1	9
DUTRA, LEROY Facility Id: FA0032036	***SMITH LN***	***S 1/8 - 1/4 (0.204 mi.)***	***A4***	***16***

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 6 records.

Site Name	Database(s)
7-ELEVEN INC #38737	CERS HAZ WASTE
LONE TREE WAY	CIWQS
	CDL
VENTURINI LEASE SITE (BRENTWOOD OI	CPS-SLIC
OXY USA INC. (BRENTWOOD OIL & GAS	CPS-SLIC
RAVENSWOOD (DELTA LAKES)	CPS-SLIC

OVERVIEW MAP - 6390789.2S



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

0 1/4 1/2 1 Miles

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

N

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: 7590, 7600 & 7650 Lone Tree Way	CLIENT: AllWest Environmental Inc.
ADDRESS: 7590, 7600 & 7650 Lone Tree Way Brentwood CA 94513	CONTACT: Klaudia Barberi INQUIRY #: 6390789.2s
LAT/LONG: 37.962549 / 121.710835	DATE: March 03, 2021 8:55 pm

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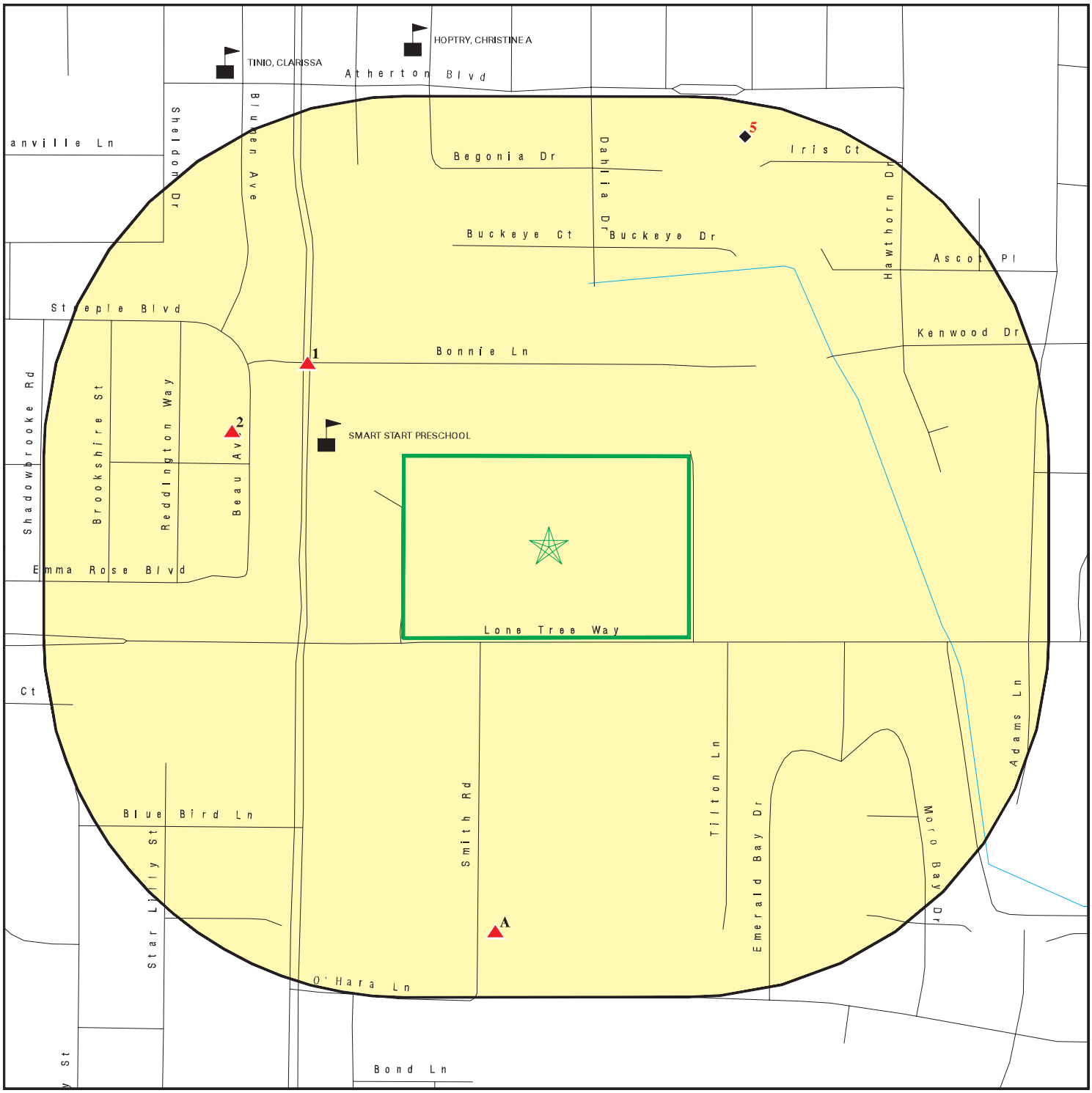
DETAIL MAP - 6390789.2S



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

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

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: 7590, 7600 & 7650 Lone Tree Way	CLIENT: AllWest Environmental Inc.
ADDRESS: 7590, 7600 & 7650 Lone Tree Way Brentwood CA 94513	CONTACT: Klaudia Barberi INQUIRY #: 6390789.2s
LAT/LONG: 37.962549 / 121.710835	DATE: March 03, 2021 8:55 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								
Federal NPL site list								
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
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
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
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	1	1	2	NR	4
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	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
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
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
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	1	NR	NR	1
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	1	0	NR	NR	1
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
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	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		0	1	NR	NR	NR	1
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		0	0	NR	NR	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	1	NR	NR	NR	1
HIST UST	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	1	NR	NR	NR	1
CERS TANKS	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	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
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		1	0	NR	NR	NR	1
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	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	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

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
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	1	NR	NR	NR	1
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
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
CONTRA COSTA CO. SITE LIST	0.250		1	1	NR	NR	NR	2
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
CIWQS	0.001		0	NR	NR	NR	NR	0
CERS	0.001		0	NR	NR	NR	NR	0
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
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	2	7	2	2	0	13

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

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
NW
< 1/8
0.093 mi.
491 ft.

BLUMEN, BETTY J
2801 O'HARA AVE
OAKLEY, CA 94561

CONTRA COSTA CO. SITE LIST

S103172298
N/A

Relative:
Higher

Actual:
81 ft.

CONTRA COSTA CO. SITE LIST:

Name:	BLUMEN, BETTY J
Address:	2801 O'HARA AVE
City:	OAKLEY
Facility ID:	FA0032326
Billing Status:	INACTIVE, NON-BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	UNDERGROUND STORAGE TANK SITE
Region:	CONTRA COSTA
Cupa Number:	747773

2
WNW
< 1/8
0.120 mi.
636 ft.

GEORGE D DRAKE
1091 BEAU AVE
BRENTWOOD, CA 94513

RCRA NonGen / NLR

1004677243
CAR000094896

Relative:
Higher

Actual:
82 ft.

RCRA NonGen / NLR:

Date Form Received by Agency:	2011-10-24 00:00:00.0
Handler Name:	GEORGE D DRAKE
Handler Address:	1091 BEAU AVE
Handler City,State,Zip:	BRENTWOOD, CA 94513
EPA ID:	CAR000094896
Contact Name:	GEORGE D DRAKE
Contact Address:	1091 BEAU AVE
Contact City,State,Zip:	BRENTWOOD, CA 94513
Contact Telephone:	415-756-7631
Contact Fax:	Not reported
Contact Email:	ENDDUMPDO@AOL.COM
Contact Title:	CEO MEBER MGR
EPA Region:	09
Land Type:	Private
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	1091 BEAU AVE
Mailing City,State,Zip:	BRENTWOOD, CA 94513
Owner Name:	GEORGE AND MARY ANN
Owner Type:	Private
Operator Name:	GEORGE DRAKE
Operator Type:	Private
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	Yes
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No

GEORGE D DRAKE (Continued) **1004677243**

Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	NN
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2011-10-24 17:53:28.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	Not reported
Manifest Broker:	Not reported
Sub-Part P Indicator:	Not reported

Hazardous Waste Summary:

Waste Code:	D008
Waste Description:	LEAD

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name:	GEORGE DRAKE
Legal Status:	Private

GEORGE D DRAKE (Continued) **1004677243**

Date Became Current:	1996-06-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	RUBEN BOLIS
Legal Status:	Private
Date Became Current:	1990-01-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	GEORGE DRAKE
Legal Status:	Private
Date Became Current:	1996-06-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	GEORGE AND MARY ANN
Legal Status:	Private
Date Became Current:	1996-06-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	2868 BUSH ST
Owner/Operator City,State,Zip:	SAN FRANCISCO, CA 94115
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	PIER 96
Legal Status:	Other
Date Became Current:	1990-01-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	PIER ONE EMBARCADERO
Owner/Operator City,State,Zip:	SAN FRANCISCO PORT, CA 94111
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

GEORGE D DRAKE (Continued) **1004677243**

Owner/Operator Indicator:	Owner
Owner/Operator Name:	GEORGE AND MARY ANN
Legal Status:	Private
Date Became Current:	1996-06-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	2868 BUSH ST
Owner/Operator City,State,Zip:	SAN FRANCISCO, CA 94115
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	GEORGE D DRAKE
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	2868 BUSH
Owner/Operator City,State,Zip:	SAN FRANCISCO, CA 94115
Owner/Operator Telephone:	415-346-7177
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	2002-10-10 00:00:00.0
Handler Name: D AND W TRUCKING	
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	2006-05-22 00:00:00.0
Handler Name: D AND W TRANSPORT LLC	
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	2011-10-24 00:00:00.0
Handler Name: GEORGE D DRAKE	
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No

GEORGE D DRAKE (Continued) **1004677243**

Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:		2011-10-24 00:00:00.0
Handler Name:	GEORGE D DRAKE	
Federal Waste Generator Description:		Not a generator, verified
State District Owner:		Not reported
Large Quantity Handler of Universal Waste:		No
Recognized Trader Importer:		No
Recognized Trader Exporter:		No
Spent Lead Acid Battery Importer:		No
Spent Lead Acid Battery Exporter:		No
Current Record:		Yes
Non Storage Recycler Activity:		Not reported
Electronic Manifest Broker:		Not reported

List of NAICS Codes and Descriptions:

NAICS Code:	48422
NAICS Description:	SPECIALIZED FREIGHT (EXCEPT USED GOODS) TRUCKING, LOCAL
NAICS Code:	562111
NAICS Description:	SOLID WASTE COLLECTION
NAICS Code:	562112
NAICS Description:	HAZARDOUS WASTE COLLECTION

Facility Has Received Notices of Violations:

Violations:	No Violations Found

Evaluation Action Summary:

Evaluations:	No Evaluations Found

A3
South
1/8-1/4
0.204 mi.
1078 ft.

PROPOSED FOURTH MIDDLE SCHOOL SITE **US BROWNFIELDS** **1023620470**
2340 SMITH ROAD **FINDS** **N/A**
BRENTWOOD, CA 95413

Site 1 of 2 in cluster A

Relative:
Higher

Actual:
81 ft.

US BROWNFIELDS:

Name:	PROPOSED FOURTH MIDDLE SCHOOL SITE
Address:	2340 SMITH ROAD
City,State,Zip:	BRENTWOOD, CA 95413
Recipient Name:	California Department of Toxic Substances Control
Grant Type:	Section 128(a) State/Tribal
Property Number:	018-100-041-5 018-100-040-7 018-100-033-2
Parcel size:	18.93
Latitude:	37.958653
Longitude:	-121.710572
HCM Label:	Address Matching-House Number
Map Scale:	-
Point of Reference:	Entrance Point of a Facility or Station

PROPOSED FOURTH MIDDLE SCHOOL SITE (Continued) **1023620470**

Highlights:	The work was requested to assist a hardship school district to complete environmental assessment of the proposed school site. The TSI grant amount was 40,000 for the project. Delineatio of lead and chlordane impacted soils in the area of existing structures was completed. Based on the results of the supplemental site investigation, a response action will be required.
Datum:	North American Datum of 1983
Acres Property ID:	133703
IC Data Access:	-
Start Date:	-
Redev Completition Date:	-
Completed Date:	-
Acres Cleaned Up:	-
Cleanup Funding:	-
Cleanup Funding Source:	-
Assessment Funding:	40000
Assessment Funding Source:	DTSC via 128a grnt
Redevelopment Funding:	-
Redev. Funding Source:	-
Redev. Funding Entity Name:	-
Redevelopment Start Date:	-
Assessment Funding Entity:	State/Tribal Funding (non-section 128(a))
Cleanup Funding Entity:	-
Grant Type:	-
Accomplishment Type:	Supplemental Assessment
Accomplishment Count:	N
Cooperative Agreement Number:	00T14502
Start Date:	01/06/2011
Ownership Entity:	Government
Completion Date:	04/30/2011
Current Owner:	Brentwood Union Elementary School District
Did Owner Change:	N
Cleanup Required:	Y
Video Available:	-
Photo Available:	Y
Institutional Controls Required:	N
IC Category Proprietary Controls:	-
IC Cat. Info. Devices:	-
IC Cat. Gov. Controls:	-
IC Cat. Enforcement Permit Tools:	-
IC in place date:	-
IC in place:	-
State/tribal program date:	10/18/2010
State/tribal program ID:	204222-83
State/tribal NFA date:	-
Air cleaned:	-
Asbestos found:	-
Asbestos cleaned:	-
Controled substance found:	-
Controled substance cleaned:	-
Drinking water affected:	-
Drinking water cleaned:	-
Groundwater affected:	-
Groundwater cleaned:	-
Lead contaminant found:	Y
Lead cleaned up:	-
No media affected:	Not reported

PROPOSED FOURTH MIDDLE SCHOOL SITE (Continued) **1023620470**

Unknown media affected:	-
Other cleaned up:	-
Other metals found:	-
Other metals cleaned:	-
Other contaminants found:	Y
Other contams found description:	OCPchlordane
PAHs found:	-
PAHs cleaned up:	-
PCBs found:	-
PCBs cleaned up:	-
Petro products found:	-
Petro products cleaned:	-
Sediments found:	-
Sediments cleaned:	-
Soil affected:	Y
Soil cleaned up:	-
Surface water cleaned:	-
VOCs found:	-
VOCs cleaned:	-
Cleanup other description:	-
Num. of cleanup and re-dev. jobs:	-
Past use greenspace acreage:	-
Past use residential acreage:	10.31
Surface Water:	-
Past use commercial acreage:	8.62
Past use industrial acreage:	-
Future use greenspace acreage:	-
Future use residential acreage:	10.31
Future use commercial acreage:	8.62
Future use industrial acreage:	-
Superfund Fed. landowner flag:	N
Arsenic cleaned up:	-
Cadmium cleaned up:	-
Chromium cleaned up:	-
Copper cleaned up:	-
Iron cleaned up:	-
mercury cleaned up:	-
Nickel Cleaned Up:	-
No clean up:	-
Pesticides cleaned up:	-
Selenium cleaned up:	-
SVOCs cleaned up:	-
Unknown clean up:	-
Arsenic contaminant found:	-
Cadmium contaminant found:	-
Chromium contaminant found:	-
Copper contaminant found:	-
Iron contaminant found:	-
Mercury contaminant found:	-
Nickel contaminant found:	-
No contaminant found:	-
Pesticides contaminant found:	-
Selenium contaminant found:	-
SVOCs contaminant found:	-
Unknown contaminant found:	-
Future Use: Multistory	-
Media affected Bluiding Material:	-

PROPOSED FOURTH MIDDLE SCHOOL SITE (Continued) **1023620470**

Media affected indoor air:	-
Building material media cleaned up:	-
Indoor air media cleaned up:	-
Unknown media cleaned up:	-
Past Use: Multistory	Not reported
Property Description:	Site consists of APNs: 018-100-033-23.10-ac, 5-build & ag-land -040-7 7,21-ac, 3 build 500 gal gas UST/250 gal diesel AST, & ag -041-5 8.69-ac ag. AG since 1939. See attachment for more details.
Below Poverty Number:	146
Below Poverty Percent:	7.58
Meidan Income:	1814
Meidan Income Number:	318
Meidan Income Percent:	16.51
Vacant Housing Number:	32
Vacant Housing Percent:	5.53
Unemployed Number:	79
Unemployed Percent:	4.1

FINDS:
Registry ID: 110070068534

Click Here:

Environmental Interest/Information System:
US EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES) is an federal online database for Brownfields Grantees to electronically submit data directly to EPA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A4 **DUTRA, LEROY** **ENVIROSTOR** **S101580840**
South **SMITH LN** **SCH** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513** **SWEEPS UST**
0.204 mi. **CA FID UST**
1078 ft. **Site 2 of 2 in cluster A** **CONTRA COSTA CO. SITE LIST**
CERS

Relative:
Higher

Actual:
81 ft.

ENVIROSTOR:

Name:	PROPOSED SCHOOL SITE
Address:	2340 SMITH ROAD
City,State,Zip:	BRENTWOOD, CA 95413
Facility ID:	60000916
Status:	Active
Status Date:	01/29/2019
Site Code:	204222
Site Type:	School Cleanup
Site Type Detailed:	School
Acres:	18.93
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Jose Luevano
Supervisor:	Jose Salcedo
Division Branch:	Northern California Schools & Santa Susana
Assembly:	11
Senate:	07
Special Program:	EPA - Target Site Investigation
Restricted Use:	NO

DUTRA, LEROY (Continued) **S101580840**

Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 37.95865
Longitude: -121.7105
APN: 018-100-033-2, 018-100-040-7, 018-100-041-5, 018100040, 018100041, 018100043
Past Use: AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS, FUEL - VEHICLE STORAGE/ REFUELING
Potential COC: Under Investigation Arsenic Benzene Chlordane DDD DDE DDT Lead Toxaphene TPH-diesel TPH-gas
Confirmed COC: Under Investigation
Potential Description: SOIL
Alias Name: Proposed Fourth Middle School Site
Alias Type: Alternate Name
Alias Name: 018-100-033-2
Alias Type: APN
Alias Name: 018-100-040-7
Alias Type: APN
Alias Name: 018-100-041-5
Alias Type: APN
Alias Name: 018100040
Alias Type: APN
Alias Name: 018100041
Alias Type: APN
Alias Name: 018100043
Alias Type: APN
Alias Name: 204222
Alias Type: Project Code (Site Code)
Alias Name: 60000916
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 04/06/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 06/16/2008
Comments: DTSC fully executed the EOA. One original mailed to the District and the other maintained in the project file. DA

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: State/Federal Funded Site Contract Fiscal Approval (CFA)
Completed Date: 10/18/2010
Comments: CFA fully executed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 01/10/2011
Comments: DTSC PM and consultant (Stuart StClair, URS) conducted site visit. Met on-site by District representative (Barbara Tittle)

DUTRA, LEROY (Continued) **S101580840**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: State/Federal Funded Site Work Order
Completed Date: 01/07/2011
Comments: Work Order issued.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Inactive Status Letter
Completed Date: 12/14/2011
Comments: Inactive status notice mailed out 12/14/2011

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: State/Federal Funded Site Contract
Completed Date: 12/31/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 06/27/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/12/2008
Comments: Phase I ESA submitted as background information for a PEAR site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 02/10/2009
Comments: DTSC concurred and approved the PEA with a further action determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.14 Request
Completed Date: 04/01/2009
Comments: DTSC approved Form SFPD 4.14.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 02/23/2011
Comments: DTSC approved the SSI Workplan for implementation. Field work is scheduled for Feb 28 amd Mar 1, 2011.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 02/28/2011
Comments: DTSC provided SSI fieldwork oversight.

Completed Area Name: PROJECT WIDE

DUTRA, LEROY (Continued) **S101580840**

Completed Sub Area Name:	Not reported
Completed Document Type:	Supplemental Site Investigation Report
Completed Date:	05/16/2011
Comments:	DTSC approved the SSI Report with a further action determination.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Correspondence
Completed Date:	01/23/2019
Comments:	Not reported

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:	PROPOSED SCHOOL SITE
Address:	2340 SMITH ROAD
City,State,Zip:	BRENTWOOD, CA 95413
Facility ID:	60000916
Site Type:	School Cleanup
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	18.93
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Jose Luevano
Supervisor:	Jose Salcedo
Division Branch:	Northern California Schools & Santa Susana
Site Code:	204222
Assembly:	11
Senate:	07
Special Program Status:	EPA - Target Site Investigation
Status:	Active
Status Date:	01/29/2019
Restricted Use:	NO
Funding:	School District
Latitude:	37.95865
Longitude:	-121.7105
APN:	018-100-033-2, 018-100-040-7, 018-100-041-5, 018100040, 018100041, 018100043
Past Use:	AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS, FUEL - VEHICLE STORAGE/ REFUELING
Potential COC:	Under Investigation, Arsenic, Benzene, Chlordane, DDD, DDE, DDT, Lead, Toxaphene, TPH-diesel, TPH-gas
Confirmed COC:	Under Investigation
Potential Description:	SOIL
Alias Name:	Proposed Fourth Middle School Site

DUTRA, LEROY (Continued) **S101580840**

Alias Type:	Alternate Name
Alias Name:	018-100-033-2
Alias Type:	APN
Alias Name:	018-100-040-7
Alias Type:	APN
Alias Name:	018-100-041-5
Alias Type:	APN
Alias Name:	018100040
Alias Type:	APN
Alias Name:	018100041
Alias Type:	APN
Alias Name:	018100043
Alias Type:	APN
Alias Name:	204222
Alias Type:	Project Code (Site Code)
Alias Name:	60000916
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	School Cleanup Agreement
Completed Date:	04/06/2009
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	06/16/2008
Comments:	DTSC fully executed the EOA. One original mailed to the District and the other maintained in the project file. DA

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	State/Federal Funded Site Contract Fiscal Approval (CFA)
Completed Date:	10/18/2010
Comments:	CFA fully executed.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	01/10/2011
Comments:	DTSC PM and consultant (Stuart StClair, URS) conducted site visit. Met on-site by District representative (Barbara Tittle)

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	State/Federal Funded Site Work Order
Completed Date:	01/07/2011
Comments:	Work Order issued.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Inactive Status Letter
Completed Date:	12/14/2011
Comments:	Inactive status notice mailed out 12/14/2011

Completed Area Name:	PROJECT WIDE

DUTRA, LEROY (Continued) **S101580840**

Completed Sub Area Name: Not reported
Completed Document Type: State/Federal Funded Site Contract
Completed Date: 12/31/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 06/27/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/12/2008
Comments: Phase I ESA submitted as background information for a PEAR site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 02/10/2009
Comments: DTSC concurred and approved the PEA with a further action determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.14 Request
Completed Date: 04/01/2009
Comments: DTSC approved Form SFPD 4.14.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 02/23/2011
Comments: DTSC approved the SSI Workplan for implementation. Field work is scheduled for Feb 28 amd Mar 1, 2011.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 02/28/2011
Comments: DTSC provided SSI fieldwork oversight.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 05/16/2011
Comments: DTSC approved the SSI Report with a further action determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 01/23/2019
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported

DUTRA, LEROY (Continued) **S101580840**

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

SWEEPS UST:
Name: DUTRA, LEROY
Address: SMITH LN
City: BRENTWOOD
Status: Not reported
Comp Number: 30096
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 07-000-030096-000001
Tank Status: Not reported
Capacity: 300
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 1

CA FID UST:
Facility ID: 07000800
Regulated By: UTNKI
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4156341795
Mail To: Not reported
Mailing Address: SMITH LN
Mailing Address 2: Not reported
Mailing City,St,Zip: BRENTWOOD 94513
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

CONTRA COSTA CO. SITE LIST:
Name: DUTRA, LEROY
Address: 2340 SMITH LN
City: BRENTWOOD
Facility ID: FA0032036
Billing Status: INACTIVE, NON-BILLABLE
Program Status: CONTRA COSTA CO. SITE LIST
Program/Elements: UNDERGROUND STORAGE TANK SITE

DUTRA, LEROY (Continued) **S101580840**

Region: CONTRA COSTA
Cupa Number: 730096

CERS:
Name: PROPOSED SCHOOL SITE
Address: 2340 SMITH ROAD
City,State,Zip: BRENTWOOD, CA 95413
Site ID: 341860
CERS ID: 60000916
CERS Description: School Cleanup

Affiliation:
Affiliation Type Desc: Supervisor
Entity Name: JUAN KOPONEN
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: Not reported

Affiliation Type Desc: Lead Project Manager
Entity Name: JOSE LUEVANO
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: SACRAMENTO
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

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5 NNE 1/8-1/4 0.226 mi. 1191 ft. **PAPINI** **MINES** **S117662295**
, CA **N/A**

Relative: Lower
Actual: 71 ft.

MINES:
Name: PAPINI
Address: Not reported
City,State,Zip: CA
Latitude: 37.966667
Longitude: -121.708333
Lead Agency identification code: 7
Lead Agency name: County of Contra Costa
Year of the operator supplied annual report: 2001
Type of report submitted by operator: 2
Number of acres disturbed by the mine: 0
Status of mining operation: RECLAIMED
Status of mine reclamation: RECLAMATION CERTIFIED COMPLETE BY LEAD AGENCY
Mine operator: DELTA TOPSOIL, INC.
Operator Address: PO BOX 27873
Operator City, State, Zip: CONCORD, CA 94527-0873
Operator County: Not reported
Mine owner: PAPINI
Owner Address: PO BOX 361

PAPINI (Continued) **S117662295**

Owner City, State, Zip:	OAKLEY, CA 94561
Owner County:	Not reported
Reclamation plan identification number:	Not reported
Primary product produced by the mine:	Specialty Sand
Other products produced by the mine:	Not reported
Type of mining utilized by mine:	OPEN PIT,QUARRY
Conditional use permit identification number:	LP 96-2062
Number of acres permitted for mining disturbance:	10
Total amount of funds posted by the mine for reclamation:	15000
Financial Assurance Cost Estimate for reclamation:	Not reported

---

6
WSW
1/4-1/2
0.364 mi.
1923 ft.

MERITAGE HOMES OF NORTHERN CALIFORNIA INC
7281 LONE TREE WAY
BRENTWOOD, CA 94513

ENVIROSTOR **S112931201**
VCP **N/A**
HAZNET
HWTS

Relative:
Higher

Actual:
92 ft.

ENVIROSTOR:

Name:	SKIPOLINI PROPERTY
Address:	7281 LONE TREE WAY
City,State,Zip:	BRENTWOOD, CA 94513
Facility ID:	60002296
Status:	Active
Status Date:	01/01/2016
Site Code:	202227
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	1.72
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Parag Shah
Supervisor:	Whitney Smith
Division Branch:	Cleanup Berkeley
Assembly:	, 11
Senate:	, 07
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	37.96159
Longitude:	-121.7193
APN:	018-080-022, 018080022
Past Use:	AGRICULTURAL - ORCHARD, RESIDENTIAL AREA
Potential COC:	Lead
Confirmed COC:	Lead
Potential Description:	SOIL
Alias Name:	018-080-022
Alias Type:	APN
Alias Name:	018080022
Alias Type:	APN
Alias Name:	202078
Alias Type:	Project Code (Site Code)
Alias Name:	202078
Alias Type:	Project Code (Site Code)
Alias Name:	202227
Alias Type:	Project Code (Site Code)
Alias Name:	60002296

MERITAGE HOMES OF NORTHERN CALIFORNIA INC (Continued) **S112931201**

Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 01/27/2016
Comments: DTSC is the lead Agency. This project was assigned in Jan 2016

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 08/02/2019
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 03/21/2018
Comments: Date added to complete activity.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Standard Voluntary Agreement
Completed Date: 07/08/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/13/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/21/2017
Comments: FY 2017/2018 COST ESTIMATE FOR OVERSIGHT OF RESPONSE WORK COMPLETED.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Standard Voluntary Agreement
Completed Date: 03/15/2019
Comments: The RP and DTSC signed on the Voluntary Cleanup Agreement for the Skipolini Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/02/2020
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 02/27/2020
Comments: Not reported

MERITAGE HOMES OF NORTHERN CALIFORNIA INC (Continued) **S112931201**

Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Certification
Future Due Date:	2023
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Removal Action Workplan
Schedule Due Date:	04/04/2021
Schedule Revised Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Removal Action Completion Report
Schedule Due Date:	04/16/2020
Schedule Revised Date:	02/16/2022
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Phase 1
Schedule Due Date:	05/29/2021
Schedule Revised Date:	Not reported

VCP:

Name:	SKIPOLINI PROPERTY
Address:	7281 LONE TREE WAY
City,State,Zip:	BRENTWOOD, CA 94513
Facility ID:	60002296
Site Type:	Voluntary Cleanup
Site Type Detail:	Voluntary Cleanup
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	1.72
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Parag Shah
Supervisor:	Whitney Smith
Division Branch:	Cleanup Berkeley
Site Code:	202227
Assembly:	, 11
Senate:	, 07
Special Programs Code:	Not reported
Status:	Active
Status Date:	01/01/2016
Restricted Use:	NO
Funding:	Responsible Party
Lat/Long:	37.96159 / -121.7193
APN:	018-080-022, 018080022
Past Use:	AGRICULTURAL - ORCHARD, RESIDENTIAL AREA
Potential COC:	30013
Confirmed COC:	30013
Potential Description:	SOIL
Alias Name:	018-080-022
Alias Type:	APN
Alias Name:	018080022
Alias Type:	APN
Alias Name:	202078
Alias Type:	Project Code (Site Code)
Alias Name:	202078

MERITAGE HOMES OF NORTHERN CALIFORNIA INC (Continued) **S112931201**

Alias Type: Project Code (Site Code)
Alias Name: 202227
Alias Type: Project Code (Site Code)
Alias Name: 60002296
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 01/27/2016
Comments: DTSC is the lead Agency. This project was assigned in Jan 2016

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 08/02/2019
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 03/21/2018
Comments: Date added to complete activity.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Standard Voluntary Agreement
Completed Date: 07/08/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/13/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/21/2017
Comments: FY 2017/2018 COST ESTIMATE FOR OVERSIGHT OF RESPONSE WORK COMPLETED.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Standard Voluntary Agreement
Completed Date: 03/15/2019
Comments: The RP and DTSC signed on the Voluntary Cleanup Agreement for the Skipolini Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 10/02/2020
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

MERITAGE HOMES OF NORTHERN CALIFORNIA INC (Continued) **S112931201**

Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	02/27/2020
Comments:	Not reported
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Certification
Future Due Date:	2023
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Removal Action Workplan
Schedule Due Date:	04/04/2021
Schedule Revised Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Removal Action Completion Report
Schedule Due Date:	04/16/2020
Schedule Revised Date:	02/16/2022
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Phase 1
Schedule Due Date:	05/29/2021
Schedule Revised Date:	Not reported

HAZNET:

Name:	MERITAGE HOMES OF NORTHERN CALIFORNIA INC
Address:	7281 LONE TREE WAY
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 94513
Contact:	JOAN SYLVIA/MGR
Telephone:	9252883033
Mailing Name:	Not reported
Mailing Address:	1800 SUTTER ST #500
Year:	2003
Gepaid:	CAC002567472
TSD EPA ID:	CAD982042475
CA Waste Code:	151 - Asbestos containing waste
Disposal Method:	D80 - Disposal, Land Fill
Tons:	5.0568

Additional Info:

Year:	2003
Gen EPA ID:	CAC002567472
Shipment Date:	20030711
Creation Date:	7/23/2004 9:17:57
Receipt Date:	20030725
Manifest ID:	22747799
Trans EPA ID:	CAD982029258
Trans Name:	Not reported
Trans 2 EPA ID:	CAR000037283
Trans 2 Name:	Not reported
TSDF EPA ID:	CAD982042475
Trans Name:	Not reported

MERITAGE HOMES OF NORTHERN CALIFORNIA INC (Continued) **S112931201**

TSDF Alt EPA ID:	CAD982042475
TSDF Alt Name:	Not reported
Waste Code Description:	151 - Asbestos-containing waste
RCRA Code:	Not reported
Meth Code:	D80 - Disposal, Land Fill
Quantity Tons:	5.0568
Waste Quantity:	6
Quantity Unit:	Y
Additional Code 1:	Not reported
Additional Code 2:	Not reported
Additional Code 3:	Not reported
Additional Code 4:	Not reported
Additional Code 5:	Not reported

HWTS:

Name:	MERITAGE HOMES OF NORTHERN CALIFORNIA INC
Address:	7281 LONE TREE WAY
Address 2:	Not reported
City,State,Zip:	BRENTWOOD, CA 94513
EPA ID:	CAC002567472
Inactive Date:	01/07/2004
Create Date:	07/10/2003
Last Act Date:	07/10/2003
Mailing Name:	Not reported
Mailing Address:	1800 SUTTER ST #500
Mailing Address 2:	Not reported
Mailing City,State,Zip:	CONCORD, CA 94520
Owner Name:	MERITAGE HOMES OF NORTHERN CALIFORN
Owner Address:	1800 SUTTER ST #500
Owner Address 2:	Not reported
Owner City,State,Zip:	CONCORD, CA 94520
Contact Name:	JOAN SYLVIA/MGR
Contact Address:	1800 SUTTER ST #500
Contact Address 2:	Not reported
City,State,Zip:	CONCORD, CA 94520

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7 **ZOCCHI ELEMENTARY SCHOOL** **ENVIROSTOR** **S107737654**
NE **BROWNSTONE ROAD/ANDERSON LANE** **SCH** **N/A**
1/2-1 **OAKLEY, CA 94561**
0.613 mi.
3239 ft.

Relative:
Lower

Actual:
54 ft.

ENVIROSTOR:

Name:	ZOCCHI ELEMENTARY SCHOOL
Address:	BROWNSTONE ROAD/ANDERSON LANE
City,State,Zip:	OAKLEY, CA 94561
Facility ID:	60000254
Status:	No Further Action
Status Date:	09/11/2007
Site Code:	204177
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	24.9
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Jose Luevano

ZOCCHI ELEMENTARY SCHOOL (Continued) **S107737654**

Supervisor:	Mark Malinowski
Division Branch:	Northern California Schools & Santa Susana
Assembly:	11
Senate:	07
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	37.96996
Longitude:	-121.7014
APN:	034-190-002, 034-190-003, 034-190-004, 034-200-017, 034-200-025, 034190002, 034190003, 034190004, 034200017, 034200025
Past Use:	AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS
Potential COC:	Arsenic Benzene Chlordane DDD DDE DDT Lead TPH-diesel TPH-gas TPH-MOTOR OIL
Confirmed COC:	30001-NO 30003-NO 30004-NO 30006-NO 30007-NO 30008-NO 30013-NO No Contaminants found 30024-NO 30025-NO 3002502-NO
Potential Description:	SOIL
Alias Name:	034-190-002
Alias Type:	APN
Alias Name:	034-190-003
Alias Type:	APN
Alias Name:	034-190-004
Alias Type:	APN
Alias Name:	034-200-017
Alias Type:	APN
Alias Name:	034-200-025
Alias Type:	APN
Alias Name:	034190002
Alias Type:	APN
Alias Name:	034190003
Alias Type:	APN
Alias Name:	034190004
Alias Type:	APN
Alias Name:	034200017
Alias Type:	APN
Alias Name:	034200025
Alias Type:	APN
Alias Name:	204177
Alias Type:	Project Code (Site Code)
Alias Name:	60000254
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	12/13/2006
Comments:	DTSC approved the PEA WP.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	05/18/2007
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported

ZOCCHI ELEMENTARY SCHOOL (Continued) **S107737654**

Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 05/30/2007
Comments: DTSC approved the SSI Tech Memo Workplan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.15 Request
Completed Date: 05/18/2007
Comments: 4.15 approval was included in the PEA further action approval letter.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 09/11/2007
Comments: DTSC approved the SSI report with a no further action determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 04/17/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 04/16/2007
Comments: Sent fully executed agreement to district.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 10/12/2007
Comments: CRU Memo approved.

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: ZOCCHI ELEMENTARY SCHOOL
Address: BROWNSTONE ROAD/ANDERSON LANE
City,State,Zip: OAKLEY, CA 94561
Facility ID: 60000254
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 24.9
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP

ZOCCHI ELEMENTARY SCHOOL (Continued) **S107737654**

Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Jose Luevano
Supervisor:	Mark Malinowski
Division Branch:	Northern California Schools & Santa Susana
Site Code:	204177
Assembly:	11
Senate:	07
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	09/11/2007
Restricted Use:	NO
Funding:	School District
Latitude:	37.96996
Longitude:	-121.7014
APN:	034-190-002, 034-190-003, 034-190-004, 034-200-017, 034-200-025, 034190002, 034190003, 034190004, 034200017, 034200025
Past Use:	AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS
Potential COC:	Arsenic, Arsenic, Benzene, Chlordane, DDD, DDE, DDT, Lead, TPH-diesel, TPH-gas, TPH-MOTOR OIL
Confirmed COC:	30001-NO, 30003-NO, 30004-NO, 30006-NO, 30007-NO, 30008-NO, 30013-NO, No Contaminants found, 30024-NO, 30025-NO, 3002502-NO
Potential Description:	SOIL
Alias Name:	034-190-002
Alias Type:	APN
Alias Name:	034-190-003
Alias Type:	APN
Alias Name:	034-190-004
Alias Type:	APN
Alias Name:	034-200-017
Alias Type:	APN
Alias Name:	034-200-025
Alias Type:	APN
Alias Name:	034190002
Alias Type:	APN
Alias Name:	034190003
Alias Type:	APN
Alias Name:	034190004
Alias Type:	APN
Alias Name:	034200017
Alias Type:	APN
Alias Name:	034200025
Alias Type:	APN
Alias Name:	204177
Alias Type:	Project Code (Site Code)
Alias Name:	60000254
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	12/13/2006
Comments:	DTSC approved the PEA WP.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	05/18/2007

ZOCCHI ELEMENTARY SCHOOL (Continued) **S107737654**

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 05/30/2007
Comments: DTSC approved the SSI Tech Memo Workplan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.15 Request
Completed Date: 05/18/2007
Comments: 4.15 approval was included in the PEA further action approval letter.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 09/11/2007
Comments: DTSC approved the SSI report with a no further action determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 04/17/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 04/16/2007
Comments: Sent fully executed agreement to district.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 10/12/2007
Comments: CRU Memo approved.

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

8 West 1/2-1 0.927 mi. 4893 ft. | **LA PALOMA 6651 LONE TREE WAY BRENTWOOD, CA 94513** | **ENVIROSTOR SCH CERS** | **S105628389 N/A**

Relative: Higher

Actual: 103 ft.

ENVIROSTOR:

Name:	LA PALOMA
Address:	6651 LONE TREE WAY
City,State,Zip:	BRENTWOOD, CA 94513
Facility ID:	07010008
Status:	No Further Action
Status Date:	09/09/2004
Site Code:	204056
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	5.65
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Kamili Siglowide
Supervisor:	Mark Malinowski
Division Branch:	Northern California Schools & Santa Susana
Assembly:	11
Senate:	07
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	37.96115
Longitude:	-121.7299
APN:	019050040
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	Toxaphene
Confirmed COC:	30023-NO No Contaminants found
Potential Description:	SOIL
Alias Name:	LA PALOMA
Alias Type:	Alternate Name
Alias Name:	LIBERTY UNION HIGH SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	LIBERTY UNION HSD-LA PALOMA EXPANSION
Alias Type:	Alternate Name
Alias Name:	019050040
Alias Type:	APN
Alias Name:	110021528373
Alias Type:	EPA (FRS #)
Alias Name:	204056
Alias Type:	Project Code (Site Code)
Alias Name:	07010008
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	09/09/2004
Comments:	DTSC approved the PEA equivalent with a no further action determination
Completed Area Name:	PROJECT WIDE

LA PALOMA (Continued) **S105628389**

Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 06/01/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 06/22/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 11/29/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 09/10/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Public Participation
Completed Date: 07/20/2004
Comments: Not reported

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: LA PALOMA
Address: 6651 LONE TREE WAY
City,State,Zip: BRENTWOOD, CA 94513
Facility ID: 07010008
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 5.65
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Kamili Siglowide
Supervisor: Mark Malinowski
Division Branch: Northern California Schools & Santa Susana
Site Code: 204056

LA PALOMA (Continued) **S105628389**

Assembly:	11
Senate:	07
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	09/09/2004
Restricted Use:	NO
Funding:	School District
Latitude:	37.96115
Longitude:	-121.7299
APN:	019050040
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	Toxaphene
Confirmed COC:	30023-NO, No Contaminants found
Potential Description:	SOIL
Alias Name:	LA PALOMA
Alias Type:	Alternate Name
Alias Name:	LIBERTY UNION HIGH SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	LIBERTY UNION HSD-LA PALOMA EXPANSION
Alias Type:	Alternate Name
Alias Name:	019050040
Alias Type:	APN
Alias Name:	110021528373
Alias Type:	EPA (FRS #)
Alias Name:	204056
Alias Type:	Project Code (Site Code)
Alias Name:	07010008
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	09/09/2004
Comments:	DTSC approved the PEA equivalent with a no further action determination
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	06/01/2001
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	06/22/2001
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	11/29/2000
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo

LA PALOMA (Continued) **S105628389**

Completed Date: 09/10/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Public Participation
Completed Date: 07/20/2004
Comments: Not reported

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

CERS:
Name: LA PALOMA
Address: 6651 LONE TREE WAY
City,State,Zip: BRENTWOOD, CA 94513
Site ID: 339145
CERS ID: 07010008
CERS Description: School Investigation

Affiliation:
Affiliation Type Desc: Supervisor
Entity Name: MARK MALINOWSKI
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: Not reported

Affiliation Type Desc: Lead Project Manager
Entity Name: KAMILI SIGLOWIDE
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: SACRAMENTO
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Count: 6 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BRENTWOOD	S106230275	VENTURINI LEASE SITE (BRENTWOOD OI	DEER VALLEY RD & LONE TREE WAY		CPS-SLIC
BRENTWOOD	S121651794	LONE TREE WAY	LONE TREE WAY	94513	CIWQS
BRENTWOOD	S106112407	OXY USA INC. (BRENTWOOD OIL & GAS	LONE TREE WAY & DEER VALLEY RD		CPS-SLIC
BRENTWOOD	S126327130	7-ELEVEN INC #38737	5951 LONE TREE WAY	94513	CERS HAZ WASTE
BRENTWOOD	S106707853	RAVENSWOOD (DELTA LAKES)	POINT OF TIMBERWOOD RD & BIXLE		CPS-SLIC
OAKLEY	S107538369		E SELLERS RD & E CYPRESS RD	94561	CDL

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

Federal NPL site list

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: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 01/14/2021
Next Scheduled EDR Contact: 04/12/2021
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 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

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: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 01/14/2021
Next Scheduled EDR Contact: 04/12/2021
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

Federal Delisted NPL site list

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: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 01/14/2021
Next Scheduled EDR Contact: 04/12/2021
Data Release Frequency: Quarterly

Federal CERCLIS list

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: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 12/23/2020
Next Scheduled EDR Contact: 04/12/2021
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: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 35

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 01/14/2021
Next Scheduled EDR Contact: 04/26/2021
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

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: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 35

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 01/14/2021
Next Scheduled EDR Contact: 04/26/2021
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 5

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/17/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

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: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/17/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Quarterly

Federal RCRA generators list

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: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/17/2020
Next Scheduled EDR Contact: 04/05/2021
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: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/17/2020
Next Scheduled EDR Contact: 04/05/2021
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: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/17/2020
Next Scheduled EDR Contact: 04/05/2021
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: 11/11/2020
Date Data Arrived at EDR: 11/17/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 84

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/08/2021
Next Scheduled EDR Contact: 05/24/2021
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: 10/28/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 11/18/2020
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/23/2021
Next Scheduled EDR Contact: 06/06/2021
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: 10/28/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 11/18/2020
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/23/2021
Next Scheduled EDR Contact: 06/06/2021
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: 12/14/2020
Date Data Arrived at EDR: 12/15/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 7

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/15/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

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: 10/26/2020
Date Data Arrived at EDR: 10/26/2020
Date Made Active in Reports: 01/13/2021
Number of Days to Update: 79

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/26/2021
Next Scheduled EDR Contact: 05/10/2021
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

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: 10/26/2020
Date Data Arrived at EDR: 10/26/2020
Date Made Active in Reports: 01/13/2021
Number of Days to Update: 79

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/26/2021
Next Scheduled EDR Contact: 05/10/2021
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

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: 11/09/2020
Date Data Arrived at EDR: 11/10/2020
Date Made Active in Reports: 01/14/2021
Number of Days to Update: 65

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/09/2021
Next Scheduled EDR Contact: 05/24/2021
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

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 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 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 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 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: 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: 12/04/2020
Date Data Arrived at EDR: 12/04/2020
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 76

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Quarterly

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 R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
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: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

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: 04/29/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
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: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
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: 04/14/2020
Date Data Arrived at EDR: 05/26/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 78

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
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: 04/15/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
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: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
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: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
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: 12/04/2020
Date Data Arrived at EDR: 12/04/2020
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 76

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
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

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 07/21/2020
Date Data Arrived at EDR: 09/03/2020
Date Made Active in Reports: 11/25/2020
Number of Days to Update: 83

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/04/2021
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Varies

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: 12/02/2020
Date Data Arrived at EDR: 12/08/2020
Date Made Active in Reports: 02/23/2021
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 12/08/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 12/04/2020
Date Data Arrived at EDR: 12/04/2020
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 76

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/04/2020
Date Data Arrived at EDR: 12/04/2020
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 76

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Semi-Annually

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: 12/09/2020
Next Scheduled EDR Contact: 03/29/2021
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: 04/03/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
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: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
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: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 12/15/2020
Next Scheduled EDR Contact: 05/03/2021
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: 04/29/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
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: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 85

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
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: 04/14/2020
Date Data Arrived at EDR: 05/26/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 78

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
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: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
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: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

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: 12/15/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Varies

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: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
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: 10/26/2020
Date Data Arrived at EDR: 10/26/2020
Date Made Active in Reports: 01/13/2021
Number of Days to Update: 79

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/26/2021
Next Scheduled EDR Contact: 05/10/2021
Data Release Frequency: Quarterly

State and tribal Brownfields 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: 09/21/2020
Date Data Arrived at EDR: 09/22/2020
Date Made Active in Reports: 12/11/2020
Number of Days to Update: 80

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 12/17/2020
Next Scheduled EDR Contact: 04/05/2021
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: 12/11/2020
Date Data Arrived at EDR: 12/11/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/11/2020
Next Scheduled EDR Contact: 03/29/2021
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: 01/25/2021
Next Scheduled EDR Contact: 05/10/2021
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 12/07/2020
Date Data Arrived at EDR: 12/08/2020
Date Made Active in Reports: 02/22/2021
Number of Days to Update: 76

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/08/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 11/23/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/08/2021
Next Scheduled EDR Contact: 05/24/2021
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: 01/25/2021
Next Scheduled EDR Contact: 05/10/2021
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: 01/19/2021
Next Scheduled EDR Contact: 05/03/2021
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: 01/29/2021
Next Scheduled EDR Contact: 05/10/2021
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: 12/07/2020
Date Data Arrived at EDR: 12/09/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 83

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/22/2021
Next Scheduled EDR Contact: 06/06/2021
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: 10/26/2020
Date Data Arrived at EDR: 10/26/2020
Date Made Active in Reports: 01/13/2021
Number of Days to Update: 79

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/26/2021
Next Scheduled EDR Contact: 05/10/2021
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: 06/30/2019
Date Data Arrived at EDR: 05/28/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 01/19/2021
Next Scheduled EDR Contact: 04/19/2021
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: 10/19/2020
Date Data Arrived at EDR: 10/19/2020
Date Made Active in Reports: 01/07/2021
Number of Days to Update: 80

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 01/20/2021
Next Scheduled EDR Contact: 05/03/2021
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: 12/07/2020
Date Data Arrived at EDR: 12/09/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 83

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/22/2021
Next Scheduled EDR Contact: 06/06/2021
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 12/07/2020
Date Data Arrived at EDR: 12/08/2020
Date Made Active in Reports: 02/22/2021
Number of Days to Update: 76

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 02/24/2021
Next Scheduled EDR Contact: 03/22/2021
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

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 05/20/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/06/2020
Number of Days to Update: 78

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 02/22/2021
Next Scheduled EDR Contact: 06/06/2021
Data Release Frequency: Annually

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: 11/05/2020
Date Data Arrived at EDR: 11/06/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 81

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Varies

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: 10/19/2020
Date Data Arrived at EDR: 10/19/2020
Date Made Active in Reports: 01/07/2021
Number of Days to Update: 80

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/20/2021
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Quarterly

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

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: 11/24/2020
Date Data Arrived at EDR: 11/30/2020
Date Made Active in Reports: 02/10/2021
Number of Days to Update: 72

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 06/14/2021
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: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 35

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 01/14/2021
Next Scheduled EDR Contact: 04/12/2021
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: 11/30/2020
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/12/2021
Number of Days to Update: 73

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 12/01/2020
Next Scheduled EDR Contact: 03/15/2021
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: 09/20/2020
Date Data Arrived at EDR: 09/22/2020
Date Made Active in Reports: 12/14/2020
Number of Days to Update: 83

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/17/2020
Next Scheduled EDR Contact: 04/05/2021
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: 09/30/2020
Date Data Arrived at EDR: 10/19/2020
Date Made Active in Reports: 01/07/2021
Number of Days to Update: 80

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/20/2021
Next Scheduled EDR Contact: 05/03/2021
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: 12/04/2020
Date Data Arrived at EDR: 12/04/2020
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 76

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
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: 12/04/2020
Date Data Arrived at EDR: 12/04/2020
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 76

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
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: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/17/2020
Next Scheduled EDR Contact: 04/05/2021
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: 09/29/2020
Date Data Arrived at EDR: 11/17/2020
Date Made Active in Reports: 01/25/2021
Number of Days to Update: 69

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 02/17/2021
Next Scheduled EDR Contact: 05/31/2021
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: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/15/2021
Next Scheduled EDR Contact: 04/26/2021
Data Release Frequency: Semi-Annually

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: 01/07/2021
Next Scheduled EDR Contact: 04/19/2021
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: 02/09/2021
Next Scheduled EDR Contact: 05/24/2021
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: 09/21/2020
Date Data Arrived at EDR: 09/22/2020
Date Made Active in Reports: 12/14/2020
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 12/17/2020
Next Scheduled EDR Contact: 04/05/2021
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: 02/02/2021
Next Scheduled EDR Contact: 05/17/2021
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: 02/05/2021
Next Scheduled EDR Contact: 05/17/2021
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: 12/18/2020
Next Scheduled EDR Contact: 03/29/2021
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: 02/02/2021
Next Scheduled EDR Contact: 05/31/2021
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: 10/19/2020
Date Data Arrived at EDR: 10/19/2020
Date Made Active in Reports: 01/04/2021
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/21/2021
Next Scheduled EDR Contact: 05/03/2021
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: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 35

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 01/14/2021
Next Scheduled EDR Contact: 03/15/2021
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: 11/02/2020
Date Data Arrived at EDR: 11/12/2020
Date Made Active in Reports: 01/25/2021
Number of Days to Update: 74

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/19/2021
Next Scheduled EDR Contact: 05/03/2021
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: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 34

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 01/14/2021
Next Scheduled EDR Contact: 05/17/2021
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: 10/09/2019
Date Data Arrived at EDR: 10/11/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 70

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/08/2021
Next Scheduled EDR Contact: 04/19/2021
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: 12/30/2020
Next Scheduled EDR Contact: 04/19/2021
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: 08/05/2020
Date Data Arrived at EDR: 08/10/2020
Date Made Active in Reports: 10/08/2020
Number of Days to Update: 59

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 01/19/2021
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 70

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 12/01/2020
Next Scheduled EDR Contact: 03/15/2021
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: 03/02/2021
Next Scheduled EDR Contact: 06/14/2021
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: 02/05/2021
Next Scheduled EDR Contact: 05/17/2021
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: 01/08/2021
Next Scheduled EDR Contact: 04/12/2021
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: 01/27/2021
Next Scheduled EDR Contact: 05/10/2021
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: 09/30/2020
Date Data Arrived at EDR: 10/08/2020
Date Made Active in Reports: 01/04/2021
Number of Days to Update: 88

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/04/2021
Next Scheduled EDR Contact: 04/19/2021
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: 12/31/2017
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 11/20/2020
Number of Days to Update: 151

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 12/23/2020
Next Scheduled EDR Contact: 04/05/2021
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: 01/08/2021
Next Scheduled EDR Contact: 04/19/2021
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: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 02/02/2021
Next Scheduled EDR Contact: 05/17/2021
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: 02/18/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites
A listing of former lead smelter site locations.

Date of Government Version: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 26

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 01/14/2021
Next Scheduled EDR Contact: 04/12/2021
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

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: 11/03/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 01/25/2021
Number of Days to Update: 63

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/24/2021
Next Scheduled EDR Contact: 06/06/2021
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data
Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 11/24/2020
Date Data Arrived at EDR: 11/30/2020
Date Made Active in Reports: 01/25/2021
Number of Days to Update: 56

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 03/01/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Quarterly

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: 02/26/2021
Next Scheduled EDR Contact: 06/06/2021
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: 02/26/2021
Next Scheduled EDR Contact: 06/06/2021
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: 12/11/2020
Date Data Arrived at EDR: 12/11/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 81

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 12/10/2020
Next Scheduled EDR Contact: 03/22/2021
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: 11/04/2020
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 01/25/2021
Number of Days to Update: 55

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 12/01/2020
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 10/03/2020
Date Data Arrived at EDR: 10/06/2020
Date Made Active in Reports: 01/04/2021
Number of Days to Update: 90

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 01/08/2021
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 07/02/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 77

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/15/2021
Next Scheduled EDR Contact: 04/26/2021
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/17/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 06/06/2021
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: 11/13/2020
Date Data Arrived at EDR: 11/13/2020
Date Made Active in Reports: 01/25/2021
Number of Days to Update: 73

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/17/2021
Next Scheduled EDR Contact: 05/31/2021
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: 06/22/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/04/2020
Number of Days to Update: 74

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/17/2020
Next Scheduled EDR Contact: 04/05/2021
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: 02/12/2021
Next Scheduled EDR Contact: 05/24/2021
Data Release Frequency: Varies

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: 11/17/2020
Date Data Arrived at EDR: 11/18/2020
Date Made Active in Reports: 02/04/2021
Number of Days to Update: 78

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 02/22/2021
Next Scheduled EDR Contact: 06/06/2021
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: 11/23/2020
Date Data Arrived at EDR: 11/25/2020
Date Made Active in Reports: 02/10/2021
Number of Days to Update: 77

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Annually

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: 11/23/2020
Date Data Arrived at EDR: 11/24/2020
Date Made Active in Reports: 02/10/2021
Number of Days to Update: 78

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 06/14/2021
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: 12/31/2018
Date Data Arrived at EDR: 06/16/2020
Date Made Active in Reports: 08/28/2020
Number of Days to Update: 73

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/18/2020
Next Scheduled EDR Contact: 03/29/2021
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: 10/16/2020
Date Data Arrived at EDR: 10/19/2020
Date Made Active in Reports: 01/07/2021
Number of Days to Update: 80

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 01/20/2021
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 10/13/2020
Date Data Arrived at EDR: 10/14/2020
Date Made Active in Reports: 01/04/2021
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/22/2021
Next Scheduled EDR Contact: 05/03/2021
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: 11/12/2020
Date Data Arrived at EDR: 11/13/2020
Date Made Active in Reports: 01/29/2021
Number of Days to Update: 77

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/08/2021
Next Scheduled EDR Contact: 05/24/2021
Data Release Frequency: Varies

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: 01/05/2021
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 11/13/2020
Date Data Arrived at EDR: 11/13/2020
Date Made Active in Reports: 02/01/2021
Number of Days to Update: 80

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 02/17/2021
Next Scheduled EDR Contact: 05/31/2021
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: 11/13/2020
Date Data Arrived at EDR: 11/13/2020
Date Made Active in Reports: 02/01/2021
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/17/2021
Next Scheduled EDR Contact: 05/31/2021
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: 10/05/2020
Date Data Arrived at EDR: 10/06/2020
Date Made Active in Reports: 12/23/2020
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/05/2021
Next Scheduled EDR Contact: 04/19/2021
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: 12/07/2020
Date Data Arrived at EDR: 12/08/2020
Date Made Active in Reports: 02/22/2021
Number of Days to Update: 76

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 12/08/2020
Next Scheduled EDR Contact: 03/22/2021
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: 10/30/2020
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/12/2021
Number of Days to Update: 73

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 12/01/2020
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 11/09/2020
Date Data Arrived at EDR: 11/10/2020
Date Made Active in Reports: 01/27/2021
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/09/2021
Next Scheduled EDR Contact: 05/24/2021
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: 11/30/2020
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/12/2021
Number of Days to Update: 73

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 12/01/2020
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 12/07/2020
Date Data Arrived at EDR: 12/08/2020
Date Made Active in Reports: 02/22/2021
Number of Days to Update: 76

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/08/2020
Next Scheduled EDR Contact: 03/22/2021
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: 12/07/2020
Date Data Arrived at EDR: 12/09/2020
Date Made Active in Reports: 12/10/2020
Number of Days to Update: 1

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/07/2020
Next Scheduled EDR Contact: 03/29/2021
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: 02/01/2021
Date Data Arrived at EDR: 02/19/2021
Date Made Active in Reports: 02/22/2021
Number of Days to Update: 3

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 02/18/2021
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 12/04/2020
Date Data Arrived at EDR: 12/04/2020
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 76

Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
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: 11/19/2019
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 62

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/08/2021
Next Scheduled EDR Contact: 04/19/2021
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: 02/16/2021
Next Scheduled EDR Contact: 05/31/2021
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: 12/15/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 12/04/2020
Date Data Arrived at EDR: 12/04/2020
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 76

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 12/04/2020
Date Data Arrived at EDR: 12/04/2020
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 76

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
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: 12/07/2020
Date Data Arrived at EDR: 12/08/2020
Date Made Active in Reports: 02/22/2021
Number of Days to Update: 76

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 12/08/2020
Next Scheduled EDR Contact: 03/22/2021
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: 11/30/2020
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/12/2021
Number of Days to Update: 73

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 12/01/2020
Next Scheduled EDR Contact: 03/01/2021
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: 10/19/2020
Date Data Arrived at EDR: 10/19/2020
Date Made Active in Reports: 01/07/2021
Number of Days to Update: 80

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/20/2021
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 12/04/2020
Date Data Arrived at EDR: 12/04/2020
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 76

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 12/04/2020
Date Data Arrived at EDR: 12/04/2020
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 76

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)
Produced water ponds sites

Date of Government Version: 12/04/2020
Date Data Arrived at EDR: 12/04/2020
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 76

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 12/04/2020
Date Data Arrived at EDR: 12/04/2020
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 76

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
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: 12/04/2020
Date Data Arrived at EDR: 12/04/2020
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 76

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
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: 10/13/2020
Date Data Arrived at EDR: 10/14/2020
Date Made Active in Reports: 11/03/2020
Number of Days to Update: 20

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 01/19/2021
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Varies

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: 02/26/2021
Next Scheduled EDR Contact: 09/10/2018
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: 12/30/2020
Next Scheduled EDR Contact: 04/19/2021
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: 01/04/2021
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Semi-Annually

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: 01/04/2021
Next Scheduled EDR Contact: 04/19/2021
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: 01/04/2021
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks
Underground storage tank sites located in Alameda county.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 10/06/2020
Date Made Active in Reports: 12/23/2020
Number of Days to Update: 78

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/04/2021
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 10/19/2020
Date Data Arrived at EDR: 10/22/2020
Date Made Active in Reports: 01/12/2021
Number of Days to Update: 82

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
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: 12/30/2020
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 12/15/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 12/24/2020
Number of Days to Update: 8

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/15/2020
Next Scheduled EDR Contact: 04/05/2021
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: 02/26/2021
Next Scheduled EDR Contact: 05/17/2021
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: 10/19/2020
Date Data Arrived at EDR: 10/22/2020
Date Made Active in Reports: 01/13/2021
Number of Days to Update: 83

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/25/2021
Next Scheduled EDR Contact: 05/10/2021
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 08/13/2020
Date Made Active in Reports: 10/22/2020
Number of Days to Update: 70

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/25/2021
Next Scheduled EDR Contact: 05/10/2021
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 10/22/2020
Date Data Arrived at EDR: 11/03/2020
Date Made Active in Reports: 01/20/2021
Number of Days to Update: 78

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 02/08/2021
Next Scheduled EDR Contact: 05/10/2021
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: 10/02/2020
Date Data Arrived at EDR: 10/06/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 77

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/15/2021
Next Scheduled EDR Contact: 04/12/2021
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: 01/19/2021
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 11/18/2020
Date Data Arrived at EDR: 11/19/2020
Date Made Active in Reports: 02/04/2021
Number of Days to Update: 77

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/16/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 10/14/2020
Date Data Arrived at EDR: 10/15/2020
Date Made Active in Reports: 01/05/2021
Number of Days to Update: 82

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/19/2021
Next Scheduled EDR Contact: 05/03/2021
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: 02/16/2021
Next Scheduled EDR Contact: 05/31/2021
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: 10/29/2020
Date Data Arrived at EDR: 10/30/2020
Date Made Active in Reports: 01/15/2021
Number of Days to Update: 77

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 01/19/2021
Date Data Arrived at EDR: 01/21/2021
Date Made Active in Reports: 01/28/2021
Number of Days to Update: 7

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
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: 05/11/2020
Date Data Arrived at EDR: 05/12/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 76

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 02/16/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 08/13/2020
Date Data Arrived at EDR: 08/13/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 71

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/11/2021
Next Scheduled EDR Contact: 04/26/2021
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: 02/26/2021
Next Scheduled EDR Contact: 05/03/2021
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: 12/09/2020
Next Scheduled EDR Contact: 03/29/2021
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 10/19/2020
Date Data Arrived at EDR: 10/20/2020
Date Made Active in Reports: 01/12/2021
Number of Days to Update: 84

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/04/2021
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/09/2020
Date Data Arrived at EDR: 10/09/2020
Date Made Active in Reports: 12/29/2020
Number of Days to Update: 81

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/12/2021
Next Scheduled EDR Contact: 04/26/2021
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: 12/31/2019
Date Data Arrived at EDR: 08/17/2020
Date Made Active in Reports: 11/05/2020
Number of Days to Update: 80

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/11/2021
Next Scheduled EDR Contact: 04/26/2021
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: 12/18/2020
Next Scheduled EDR Contact: 04/05/2021
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: 04/30/2012
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 42

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 01/15/2021
Next Scheduled EDR Contact: 04/26/2021
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: 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: 12/18/2020
Next Scheduled EDR Contact: 04/05/2021
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: 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: 12/18/2020
Next Scheduled EDR Contact: 04/05/2021
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: 07/20/2020
Date Data Arrived at EDR: 10/09/2020
Date Made Active in Reports: 12/29/2020
Number of Days to Update: 81

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/12/2021
Next Scheduled EDR Contact: 04/26/2021
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: 10/07/2020
Next Scheduled EDR Contact: 01/25/2021
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: 01/19/2021
Next Scheduled EDR Contact: 05/03/2021
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: 09/11/2020
Date Data Arrived at EDR: 10/07/2020
Date Made Active in Reports: 12/23/2020
Number of Days to Update: 77

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/19/2021
Next Scheduled EDR Contact: 05/03/2021
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: 02/16/2021
Next Scheduled EDR Contact: 05/31/2021
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: 12/21/2020
Next Scheduled EDR Contact: 04/12/2021
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/04/2021
Date Data Arrived at EDR: 02/09/2021
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 9

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 01/29/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 11/16/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/22/2021
Next Scheduled EDR Contact: 06/06/3021
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 07/13/2020
Date Data Arrived at EDR: 07/15/2020
Date Made Active in Reports: 07/31/2020
Number of Days to Update: 16

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 12/21/2020
Next Scheduled EDR Contact: 04/12/2021
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: 02/22/2021
Next Scheduled EDR Contact: 06/06/2021
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: 02/22/2021
Next Scheduled EDR Contact: 06/06/2021
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 10/26/2020
Date Data Arrived at EDR: 10/28/2020
Date Made Active in Reports: 01/15/2021
Number of Days to Update: 79

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/25/2021
Next Scheduled EDR Contact: 05/10/2021
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 09/01/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 82

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 09/01/2020
Date Data Arrived at EDR: 11/06/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 81

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/05/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 09/01/2020
Date Data Arrived at EDR: 11/03/2020
Date Made Active in Reports: 01/21/2021
Number of Days to Update: 79

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/02/2021
Next Scheduled EDR Contact: 05/17/2021
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: 11/24/2020
Date Data Arrived at EDR: 11/24/2020
Date Made Active in Reports: 11/25/2020
Number of Days to Update: 1

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 06/14/2021
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: 01/19/2021
Next Scheduled EDR Contact: 05/03/2021
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: 10/06/2020
Date Data Arrived at EDR: 10/07/2020
Date Made Active in Reports: 11/03/2020
Number of Days to Update: 27

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/09/2020
Next Scheduled EDR Contact: 03/29/2021
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/06/2020
Date Data Arrived at EDR: 10/07/2020
Date Made Active in Reports: 11/03/2020
Number of Days to Update: 27

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/09/2020
Next Scheduled EDR Contact: 03/29/2021
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: 02/18/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 76

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 12/30/2020
Next Scheduled EDR Contact: 04/12/2021
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: 02/24/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 78

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 12/30/2020
Next Scheduled EDR Contact: 04/12/2021
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 10/28/2020
Date Data Arrived at EDR: 10/30/2020
Date Made Active in Reports: 01/15/2021
Number of Days to Update: 77

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
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: 11/16/2020
Date Data Arrived at EDR: 11/18/2020
Date Made Active in Reports: 02/04/2021
Number of Days to Update: 78

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
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: 11/30/2020
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/16/2021
Number of Days to Update: 77

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 12/01/2020
Next Scheduled EDR Contact: 03/15/2021
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: 01/19/2021
Next Scheduled EDR Contact: 05/03/2021
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: 07/14/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/03/2021
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: 02/26/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 11/05/2020
Date Data Arrived at EDR: 11/06/2020
Date Made Active in Reports: 01/27/2021
Number of Days to Update: 82

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
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: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
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: 11/05/2020
Date Data Arrived at EDR: 11/06/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 81

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
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: 12/09/2020
Next Scheduled EDR Contact: 03/29/2021
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 11/12/2020
Date Data Arrived at EDR: 11/13/2020
Date Made Active in Reports: 02/01/2021
Number of Days to Update: 80

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/16/2021
Next Scheduled EDR Contact: 05/31/2021
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: 12/11/2020
Next Scheduled EDR Contact: 03/22/2021
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: 12/01/2020
Next Scheduled EDR Contact: 03/22/2021
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: 02/16/2021
Next Scheduled EDR Contact: 05/31/2021
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 11/20/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/05/2021
Number of Days to Update: 74

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/16/2021
Next Scheduled EDR Contact: 05/31/2021
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: 02/22/2021
Next Scheduled EDR Contact: 06/06/2021
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: 02/26/2021
Next Scheduled EDR Contact: 05/16/2021
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: 02/16/2021
Next Scheduled EDR Contact: 05/31/2021
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: 02/16/2021
Next Scheduled EDR Contact: 05/31/2021
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: 02/26/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 12/03/2020
Date Data Arrived at EDR: 12/03/2020
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 77

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 12/15/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 12/23/2020
Number of Days to Update: 7

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 12/15/2020
Next Scheduled EDR Contact: 04/05/2021
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: 09/18/2020
Date Data Arrived at EDR: 09/22/2020
Date Made Active in Reports: 12/14/2020
Number of Days to Update: 83

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 12/15/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 10/06/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 77

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 01/11/2021
Next Scheduled EDR Contact: 04/26/2021
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 11/23/2020
Date Data Arrived at EDR: 11/24/2020
Date Made Active in Reports: 02/10/2021
Number of Days to Update: 78

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 02/26/2021
Next Scheduled EDR Contact: 06/14/2021
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 08/11/2020
Date Data Arrived at EDR: 08/12/2020
Date Made Active in Reports: 10/26/2020
Number of Days to Update: 75

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 10/14/2020
Date Data Arrived at EDR: 10/15/2020
Date Made Active in Reports: 01/05/2021
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 01/19/2021
Next Scheduled EDR Contact: 05/03/2021
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 10/30/2020
Date Data Arrived at EDR: 11/03/2020
Date Made Active in Reports: 01/20/2021
Number of Days to Update: 78

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 02/01/2021
Next Scheduled EDR Contact: 05/17/2021
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: 01/19/2021
Next Scheduled EDR Contact: 05/03/2021
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: 09/28/2020
Date Data Arrived at EDR: 10/22/2020
Date Made Active in Reports: 01/12/2021
Number of Days to Update: 82

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/19/2021
Next Scheduled EDR Contact: 05/02/2021
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: 12/21/2020
Next Scheduled EDR Contact: 04/12/2021
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: 02/08/2021
Next Scheduled EDR Contact: 05/24/2021
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: 09/28/2020
Date Data Arrived at EDR: 10/22/2020
Date Made Active in Reports: 01/12/2021
Number of Days to Update: 82

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/20/2021
Next Scheduled EDR Contact: 05/03/2021
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: 12/01/2020
Date Data Arrived at EDR: 12/08/2020
Date Made Active in Reports: 02/22/2021
Number of Days to Update: 76

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/08/2020
Next Scheduled EDR Contact: 03/22/2021
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: 12/21/2020
Date Data Arrived at EDR: 12/23/2020
Date Made Active in Reports: 01/04/2021
Number of Days to Update: 12

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 12/20/2020
Next Scheduled EDR Contact: 04/11/2021
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 01/26/2021
Date Data Arrived at EDR: 01/28/2021
Date Made Active in Reports: 02/03/2021
Number of Days to Update: 6

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 02/23/2021
Next Scheduled EDR Contact: 05/10/2021
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: 08/10/2020
Date Data Arrived at EDR: 10/20/2020
Date Made Active in Reports: 11/02/2020
Number of Days to Update: 13

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/12/2021
Next Scheduled EDR Contact: 05/24/2021
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: 01/08/2021
Next Scheduled EDR Contact: 04/19/2021
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: 04/29/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 01/29/2021
Next Scheduled EDR Contact: 05/10/2021
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: 01/11/2021
Next Scheduled EDR Contact: 04/26/2021
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 02/24/2021
Number of Days to Update: 13

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/09/2021
Next Scheduled EDR Contact: 05/31/2021
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: 12/03/2020
Next Scheduled EDR Contact: 03/22/2021
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

7590, 7600 & 7650 LONE TREE WAY
7590, 7600 & 7650 LONE TREE WAY
BRENTWOOD, CA 94513

TARGET PROPERTY COORDINATES

Latitude (North):	37.962549 - 37˚ 57’ 45.18’’
Longitude (West):	121.710835 - 121˚ 42’ 39.01’’
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	613247.9
UTM Y (Meters):	4202238.0
Elevation:	78 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5640376 BRENTWOOD, CA
Version Date:	2012

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).

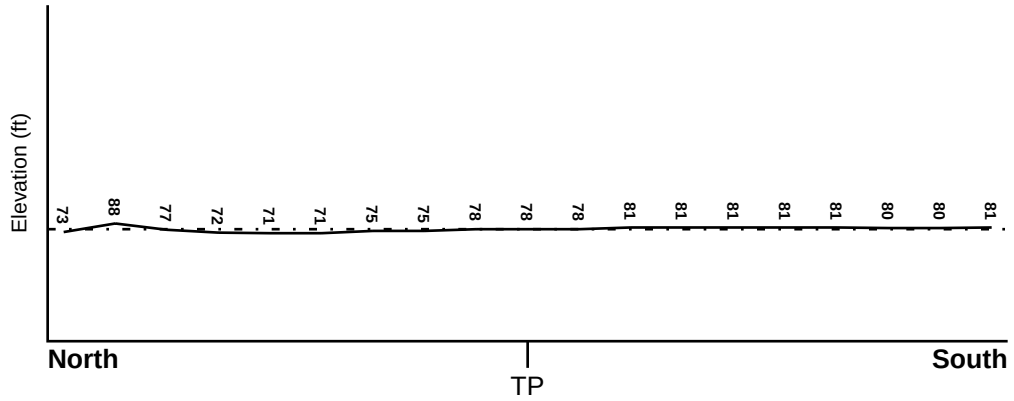
TOPOGRAPHIC INFORMATION

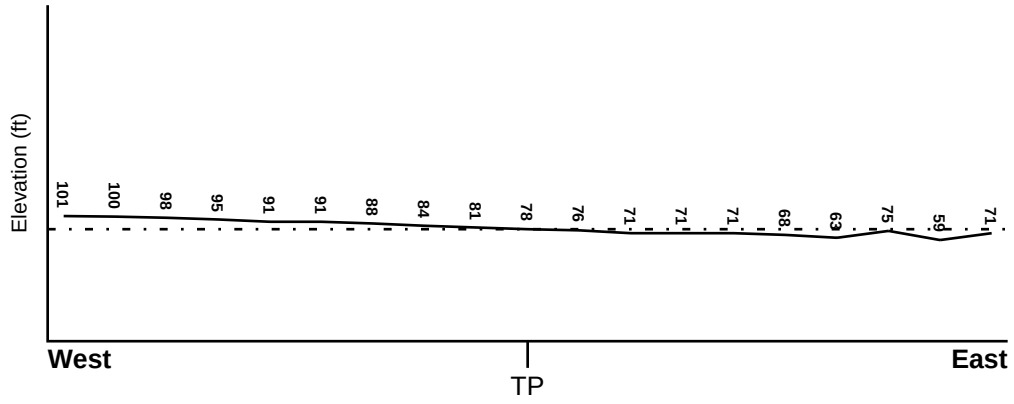
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General ENE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 78 ft.

0 1/2 1 Miles

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
06013C0354F	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06013C0355F	FEMA FIRM Flood data
06013C0353F	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
BRENTWOOD	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

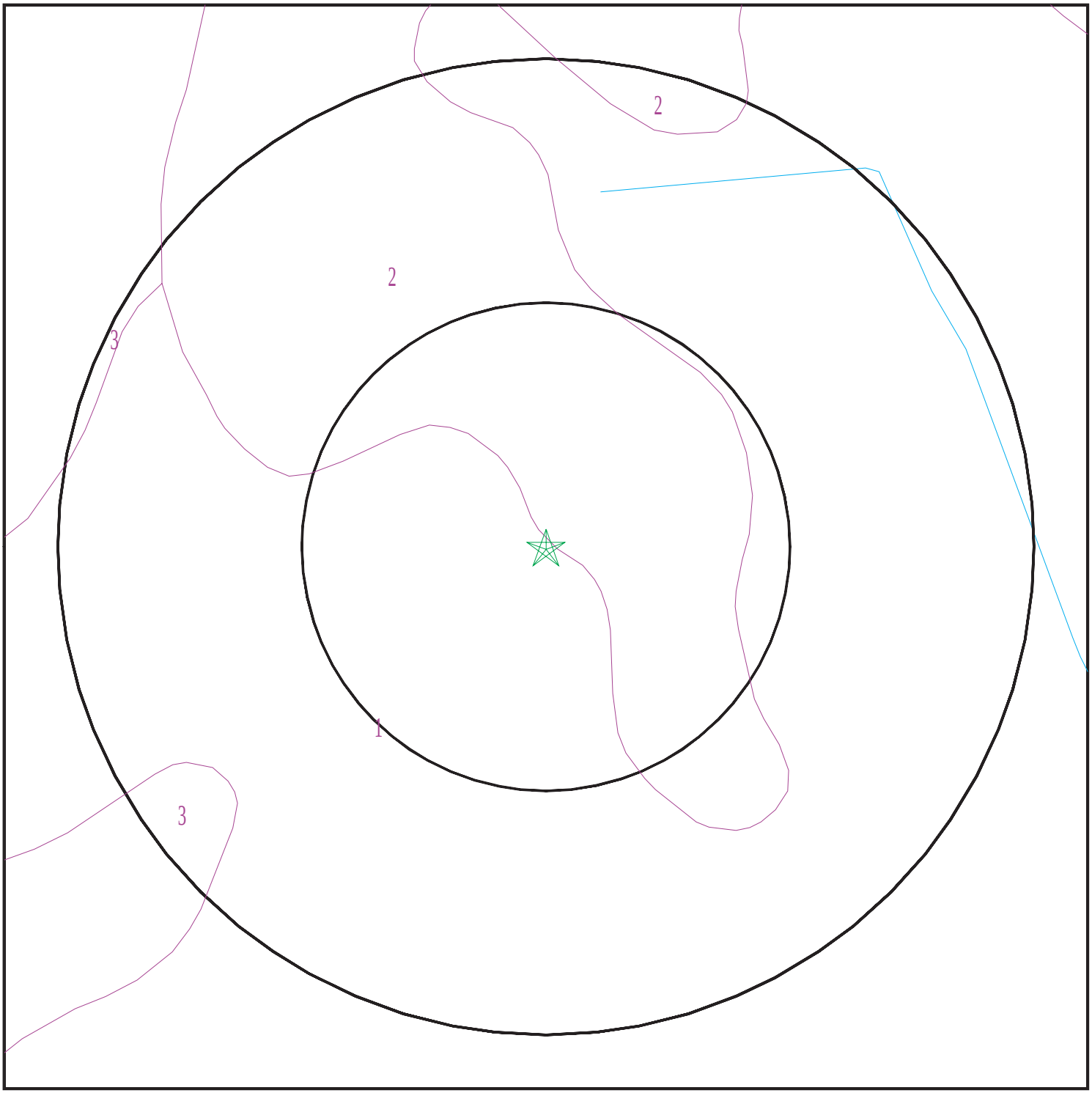
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

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 - 6390789.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	7590, 7600 & 7650 Lone Tree Way	CLIENT:	AllWest Environmental Inc.
ADDRESS:	7590, 7600 & 7650 Lone Tree Way Brentwood CA 94513	CONTACT:	Klaudia Barberi
		INQUIRY #:	6390789.2s
LAT/LONG:	37.962549 / 121.710835	DATE:	March 03, 2021 8:56 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: RINCON

Soil Surface Texture: clay 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: Partially 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	11 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
2	11 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
3	29 inches	59 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9

Soil Map ID: 2

Soil Component Name: DELHI

Soil Surface Texture: sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

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	sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.6
2	5 inches	59 inches	sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.6

Soil Map ID: 3

Soil Component Name: CAPAY

Soil Surface Texture: clay

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: Moderately well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Partially 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	35 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
2	35 inches	51 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
3	51 inches	72 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6

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

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A5	USGS40000186305	1/8 - 1/4 Mile NE
7	USGS40000186318	1/4 - 1/2 Mile NNW
B8	USGS40000186286	1/4 - 1/2 Mile WSW
11	USGS40000186270	1/2 - 1 Mile ESE
C17	USGS40000186272	1/2 - 1 Mile ESE
C18	USGS40000186275	1/2 - 1 Mile ESE
E26	USGS40000186360	1/2 - 1 Mile North
27	USGS40000186246	1/2 - 1 Mile SSE
31	USGS40000186322	1/2 - 1 Mile ENE

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
1	60	1/8 - 1/4 Mile WNW
2	61	1/8 - 1/4 Mile SW
3	CADWR0000024725	1/8 - 1/4 Mile East
A4	CAUSGSN00014586	1/8 - 1/4 Mile NE
6	80	1/4 - 1/2 Mile SSE
B9	CADDW0000013893	1/2 - 1 Mile WSW
10	CADDW0000001258	1/2 - 1 Mile ESE
12	77	1/2 - 1 Mile East
13	64	1/2 - 1 Mile ESE
14	CADWR0000032963	1/2 - 1 Mile North
15	63	1/2 - 1 Mile ESE
16	CAEDF0000022006	1/2 - 1 Mile North
D19	CADWR8000036811	1/2 - 1 Mile East
D20	CADWR8000036812	1/2 - 1 Mile East
D21	CADWR8000036810	1/2 - 1 Mile East
D22	CADDW0000017399	1/2 - 1 Mile East
23	CADDW0000013560	1/2 - 1 Mile NE
D24	CADDW0000014636	1/2 - 1 Mile East
E25	CAUSGSN00002232	1/2 - 1 Mile North
28	62	1/2 - 1 Mile East
29	76	1/2 - 1 Mile ENE
30	1690	1/2 - 1 Mile NE
32	79	1/2 - 1 Mile South

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

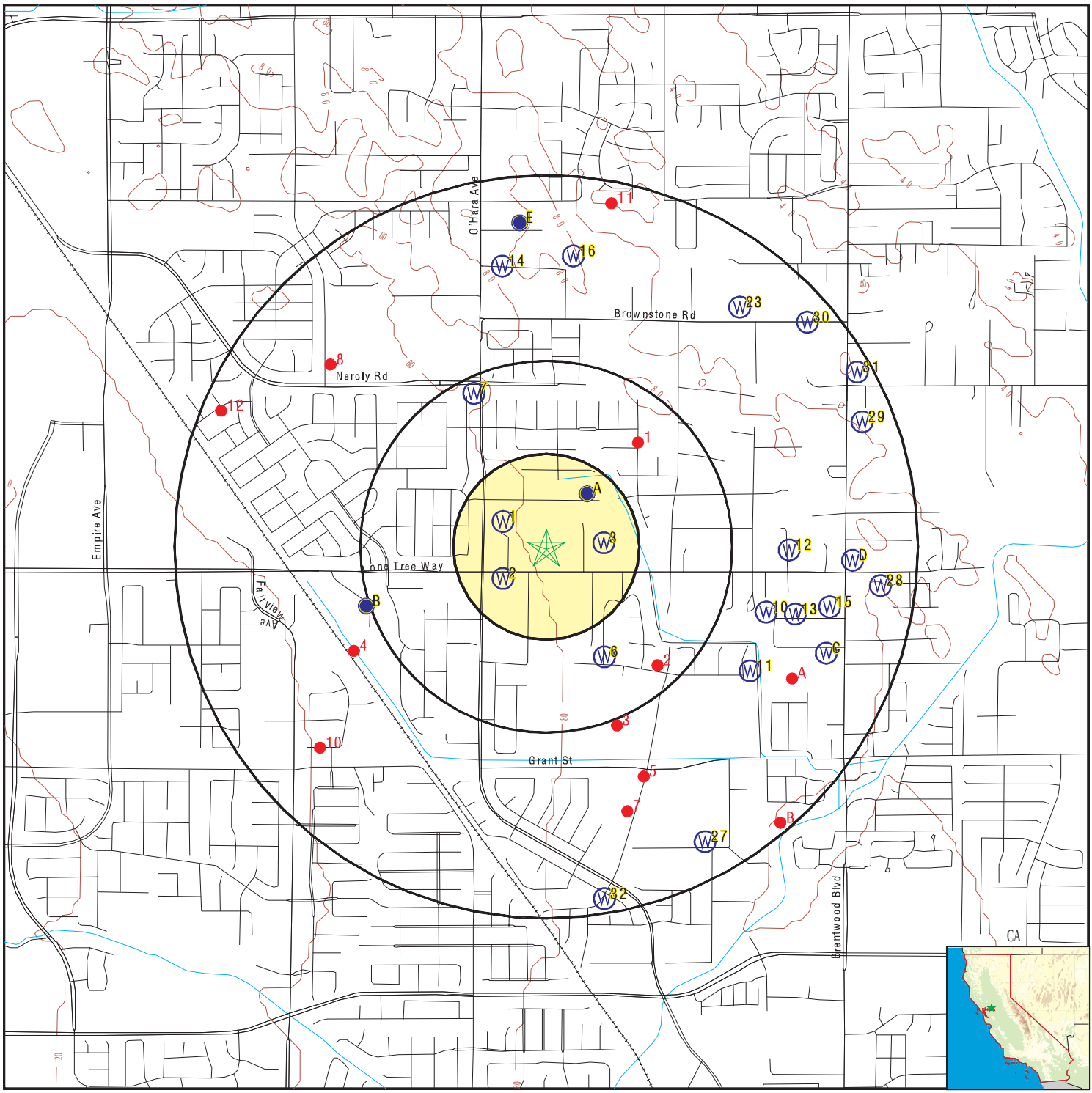
MAP ID	WELL ID	LOCATION FROM TP
1	CAOG14000007370	1/4 - 1/2 Mile NE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
2	CAOG14000215234	1/4 - 1/2 Mile SE
3	CAOG14000007371	1/2 - 1 Mile SSE
4	CAOG14000007500	1/2 - 1 Mile WSW
5	CAOG14000007556	1/2 - 1 Mile SSE
A6	CAOG14000007467	1/2 - 1 Mile ESE
7	CAOG14000007516	1/2 - 1 Mile SSE
8	CAOG14000007501	1/2 - 1 Mile NW
A9	CAOG14000215240	1/2 - 1 Mile ESE
10	CAOG14000007536	1/2 - 1 Mile SW
11	CAOG14000007519	1/2 - 1 Mile North
12	CAOG14000202166	1/2 - 1 Mile WNW
B13	CAOG14000215243	1/2 - 1 Mile SE
B14	CAOG14000215242	1/2 - 1 Mile SE

PHYSICAL SETTING SOURCE MAP - 6390789.2s



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

0 1/4 1/2 1 Miles

N

SITE NAME: 7590, 7600 & 7650 Lone Tree Way ADDRESS: 7590, 7600 & 7650 Lone Tree Way Brentwood CA 94513 LAT/LONG: 37.962549 / 121.710835	CLIENT: AllWest Environmental Inc. CONTACT: Klaudia Barberi INQUIRY #: 6390789.2s DATE: March 03, 2021 8:56 pm

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Map ID Direction Distance Elevation	Database	EDR ID Number
1 **WNW** **1/8 - 1/4 Mile** **Higher**	**CA WELLS**	**60**

Seq:	60	Prim sta c:	01N/02E-01E02 M
Frds no:	0707538001	County:	07
District:	37	User id:	07C
System no:	0707538	Water type:	G
Source nam:	WELL 01	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	375749.0	Longitude:	1214243.0
Precision:	3	Status:	AR
Comment 1:	Not Reported	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:	0707538	System nam:	Kutch-Raggedy A & A Preschool
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		

---

2 **SW** **1/8 - 1/4 Mile** **Higher**	**CA WELLS**	**61**

Seq:	61	Prim sta c:	01N/02E-01E03 M
Frds no:	0706023001	County:	07
District:	37	User id:	07C
System no:	0706023	Water type:	G
Source nam:	WELL 01	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	375741.0	Longitude:	1214243.0
Precision:	3	Status:	AR
Comment 1:	Not Reported	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:	0706023	System nam:	Muller Units
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		

---

3 **East** **1/8 - 1/4 Mile** **Lower**	**CA WELLS**	**CADWR0000024725**

Well ID:	01N02E01F001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	01N02E01F001M	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=01N02E01F001M&store_num=		

GeoTracker Data: Not Reported

A4
NE **CA WELLS** **CAUSGSN00014586**
1/8 - 1/4 Mile
Lower

Well ID:	USGS-375753121422801	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-375753121422801	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-375753121422801&store_num=		
GeoTracker Data:	Not Reported		

A5
NE **FED USGS** **USGS40000186305**
1/8 - 1/4 Mile
Lower

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001N002E01F001M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Alluvium of the Coast Range, Younger (Pleistocene-Holocene)		
Aquifer Type:	Not Reported	Construction Date:	19780418
Well Depth:	133	Well Depth Units:	ft
Well Hole Depth:	133	Well Hole Depth Units:	ft

6
SSE **CA WELLS** **80**
1/4 - 1/2 Mile
Higher

Seq:	80	Prim sta c:	01N/03E-06N03 M
Frds no:	0710004008	County:	07
District:	04	User id:	ENG
System no:	0710004	Water type:	G
Source nam:	WELL 08	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	375730.0	Longitude:	1214225.0
Precision:	4	Status:	AR
Comment 1:	Not Reported	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:	0710004	System nam:	City Of Brentwood
Hqname:	Not Reported	Address:	708 THIRD STREET
City:	BRENTWOOD	State:	Not Reported
Zip:	94513	Zip ext:	Not Reported
Pop serv:	8255	Connection:	2167
Area serve:	BRENTWOOD		
Sample date:	07-SEP-17	Finding:	1700.

Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	1.9
Chemical:	GROSS BETA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	200.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	250.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	2.
Chemical:	CARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	0.79
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-SEP-17	Finding:	390.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	89.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	41.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	200.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	3.3
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	300.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	200.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	07-SEP-17	Finding:	0.27
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	07-SEP-17	Finding:	1600.
Chemical:	BORON	Report units:	UG/L
Dlr:	100.		
Sample date:	07-SEP-17	Finding:	6.4
Chemical:	VANADIUM	Report units:	UG/L
Dlr:	3.		

Sample date:	07-SEP-17	Finding:	7.1
Chemical:	SELENIUM	Report units:	UG/L
Dlr:	5.		
Sample date:	07-SEP-17	Finding:	0.35
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	0.61
Chemical:	GROSS BETA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	1000.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	1.4
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	13.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	0.79
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-SEP-17	Finding:	0.15
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	07-SEP-17	Finding:	8.1
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	1700.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	1.3
Chemical:	GROSS BETA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	190.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	230.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	0.84
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	31-MAY-16	Finding:	430.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	97.
Chemical:	CALCIUM	Report units:	MG/L

Dlr:	0.		
Sample date:	31-MAY-16	Finding:	45.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	220.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	3.7
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	340.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	220.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	31-MAY-16	Finding:	0.24
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	31-MAY-16	Finding:	1700.
Chemical:	BORON	Report units:	UG/L
Dlr:	100.		
Sample date:	31-MAY-16	Finding:	6.
Chemical:	VANADIUM	Report units:	UG/L
Dlr:	3.		
Sample date:	31-MAY-16	Finding:	4.4
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	31-MAY-16	Finding:	0.25
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	1.4
Chemical:	GROSS BETA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	1000.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	1.2
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	0.11
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	31-MAY-16	Finding:	13.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		

Sample date:	31-MAY-16	Finding:	0.84
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	31-MAY-16	Finding:	1.6
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	7.9
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	14-APR-15	Finding:	1700.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	14-APR-15	Finding:	1.9
Chemical:	GROSS BETA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	200.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	250.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	420.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	94.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	44.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	190.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	3.5
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	300.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	210.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	14-APR-15	Finding:	0.25
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	14-APR-15	Finding:	1500.
Chemical:	BORON	Report units:	UG/L

Dlr:	100.		
Sample date:	14-APR-15	Finding:	6.6
Chemical:	VANADIUM	Report units:	UG/L
Dlr:	3.		
Sample date:	14-APR-15	Finding:	0.33
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	2.
Chemical:	GROSS BETA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	1000.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	1.4
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	14-APR-15	Finding:	3.5
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	14-APR-15	Finding:	8.5e-002
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	14-APR-15	Finding:	13.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	14-APR-15	Finding:	780.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-APR-15	Finding:	1.3
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	0.9
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	0.5
Chemical:	GROSS BETA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	2.4
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	1.7
Chemical:	GROSS BETA MDA95	Report units:	PCI/L
Dlr:	0.		

Sample date:	17-JUN-14	Finding:	1600.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	180.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	220.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	370.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	84.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	39.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	180.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	3.8
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	280.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	200.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	17-JUN-14	Finding:	0.25
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	17-JUN-14	Finding:	1400.
Chemical:	BORON	Report units:	UG/L
Dlr:	100.		
Sample date:	17-JUN-14	Finding:	5.8
Chemical:	VANADIUM	Report units:	UG/L
Dlr:	3.		
Sample date:	17-JUN-14	Finding:	8.8
Chemical:	SELENIUM	Report units:	UG/L
Dlr:	5.		
Sample date:	17-JUN-14	Finding:	1000.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L

Dlr:	0.		
Sample date:	17-JUN-14	Finding:	1.
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	3.5
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	17-JUN-14	Finding:	5700.
Chemical:	CARBON DIOXIDE	Report units:	UG/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	8.1e-002
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	17-JUN-14	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	790.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	29-MAY-13	Finding:	1600.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	5.4
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	10.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	5.8e-002
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	29-MAY-13	Finding:	4.8
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	29-MAY-13	Finding:	1000.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	0.26
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	29-MAY-13	Finding:	220.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	29-MAY-13	Finding:	280.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		

Sample date:	29-MAY-13	Finding:	3.8
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	190.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	46.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	97.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	430.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	240.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	200.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	1100.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	23-JAN-13	Finding:	6.5
Chemical:	VANADIUM	Report units:	UG/L
Dlr:	3.		
Sample date:	23-JAN-13	Finding:	6.8
Chemical:	SELENIUM	Report units:	UG/L
Dlr:	5.		
Sample date:	23-JAN-13	Finding:	960.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	23-JAN-13	Finding:	3.2
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	23-JAN-13	Finding:	1500.
Chemical:	BORON	Report units:	UG/L
Dlr:	100.		
Sample date:	23-JAN-13	Finding:	2.6
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	23-JAN-13	Finding:	0.22
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	23-JAN-13	Finding:	200.
Chemical:	SULFATE	Report units:	MG/L

Dlr:	0.5		
Sample date:	23-JAN-13	Finding:	260.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	23-JAN-13	Finding:	3.6
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	23-JAN-13	Finding:	170.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	23-JAN-13	Finding:	46.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	23-JAN-13	Finding:	95.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	23-JAN-13	Finding:	430.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	23-JAN-13	Finding:	250.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	23-JAN-13	Finding:	200.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	23-JAN-13	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	23-JAN-13	Finding:	1600.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	23-JAN-13	Finding:	5.
Chemical:	COLOR	Report units:	UNITS
Dlr:	0.		
Sample date:	23-JAN-13	Finding:	730.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	23-JAN-13	Finding:	7300.
Chemical:	CARBON DIOXIDE	Report units:	UG/L
Dlr:	0.		
Sample date:	23-JAN-13	Finding:	0.11
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	23-JAN-13	Finding:	13.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		

Map ID Direction Distance Elevation	Database	EDR ID Number
7 **NNW** **1/4 - 1/2 Mile** **Higher**	**FED USGS**	**USGS40000186318**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001N002E02A001M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19750618	Well Depth:	125
Well Depth Units:	ft	Well Hole Depth:	165
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1975-06-18
Feet below surface:	62.00	Feet to sea level:	Not Reported
Note:	Not Reported		

B8 **WSW** **1/4 - 1/2 Mile** **Higher**	**FED USGS**	**USGS40000186286**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001N002E02K001M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19720519	Well Depth:	92
Well Depth Units:	ft	Well Hole Depth:	190
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1972-05-19
Feet below surface:	46.00	Feet to sea level:	Not Reported
Note:	Not Reported		

B9 **WSW** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CADDW0000013893**

Well ID:	0706013-001	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 01	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=0706013-001&store_num=		
GeoTracker Data:	Not Reported		

Map ID Direction Distance Elevation	Database	EDR ID Number
10 **ESE** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADDW0000001258**

Well ID:	0706107-001	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL HEAD	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=0706107-001&store_num=		
GeoTracker Data:	Not Reported		

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11 **ESE** **1/2 - 1 Mile** **Lower**	**FED USGS**	**USGS40000186270**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001N002E01R002M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19780528	Well Depth:	159
Well Depth Units:	ft	Well Hole Depth:	164
Well Hole Depth Units:	ft		

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12 **East** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**77**

Seq:	77	Prim sta c:	01N/03E-06E02 M
Frds no:	0707510001	County:	07
District:	37	User id:	07C
System no:	0707510	Water type:	G
Source nam:	WELL 01	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	375745.0	Longitude:	1214152.0
Precision:	3	Status:	AR
Comment 1:	Not Reported	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:	0707510	System nam:	Altes Residential Home Care
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		

Map ID Direction Distance Elevation	Database	EDR ID Number
13 **ESE** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**64**

Seq:	64	Prim sta c:	01N/02E-01J05 M
Frds no:	0706001001	County:	07
District:	37	User id:	07C
System no:	0706001	Water type:	G
Source nam:	WELL 01	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	375736.0	Longitude:	1214151.0
Precision:	3	Status:	AR
Comment 1:	Not Reported	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:	0706001	System nam:	Chakedis Water System
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		

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14 **North** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADWR0000032963**

Well ID:	02N02E36M001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02N02E36M001M	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=02N02E36M001M&store_num=		
GeoTracker Data:	Not Reported		

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15 **ESE** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**63**

Seq:	63	Prim sta c:	01N/02E-01J04 M
Frds no:	0707520001	County:	07
District:	37	User id:	07C
System no:	0707520	Water type:	G
Source nam:	WELL 01	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	375737.0	Longitude:	1214145.0
Precision:	3	Status:	AR
Comment 1:	Not Reported	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:	0707520	System nam:	Dominguez Small Water System
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		

16
North
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000022006**

Well ID:	AGC100012333-SJCDW00040	Well Type:	MONITORING
Source:	Agricultural Lands	Other Name:	SJCDW00040
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=AGLAND&samp_date=&global_id=AGC100012333&assigned_name=SJCDW00040&store_num=		
GeoTracker Data:	Not Reported		

C17
ESE
1/2 - 1 Mile
Lower

FED USGS **USGS40000186272**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001N002E01R001M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19780528	Well Depth:	152
Well Depth Units:	ft	Well Hole Depth:	180
Well Hole Depth Units:	ft		

C18
ESE
1/2 - 1 Mile
Lower

FED USGS **USGS40000186275**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001N002E01J002M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19780528	Well Depth:	134
Well Depth Units:	ft	Well Hole Depth:	136
Well Hole Depth Units:	ft		

Map ID Direction Distance Elevation	Database	EDR ID Number
D19 **East** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADWR8000036811**

State Well #:	01N03E06E998M	Station ID:	48665
Well Name:	#14 MW-240	Well Use:	Observation
Well Type:	Part of a nested/multi-completion well		
Well Depth:	240	Basin Name:	Tracy
Well Completion Rpt #:	Not Reported		

D20 **East** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADWR8000036812**

State Well #:	01N03E06E997M	Station ID:	48666
Well Name:	#14 MW-154	Well Use:	Observation
Well Type:	Part of a nested/multi-completion well		
Well Depth:	154	Basin Name:	Tracy
Well Completion Rpt #:	Not Reported		

D21 **East** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADWR8000036810**

State Well #:	01N03E06E999M	Station ID:	48664
Well Name:	#14 MW-324	Well Use:	Observation
Well Type:	Part of a nested/multi-completion well		
Well Depth:	324	Basin Name:	Tracy
Well Completion Rpt #:	Not Reported		

D22 **East** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADDW0000017399**

Well ID:	2702373-001	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 01	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=2702373-001&store_num=		
GeoTracker Data:	Not Reported		

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23 **NE** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADDW0000013560**

Well ID:	0706032-001	Well Type:	MUNICIPAL
Source:	Department of Health Services		

Other Name:	WELL HEAD	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=0706032-001&store_num=		
GeoTracker Data:	Not Reported		

D24
East
1/2 - 1 Mile
Lower

CA WELLS **CADDW0000014636**

Well ID:	0710004-014	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 14	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=0710004-014&store_num=		
GeoTracker Data:	Not Reported		

E25
North
1/2 - 1 Mile
Higher

CA WELLS **CAUSGSN00002232**

Well ID:	USGS-375831121424001	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-375831121424001	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-375831121424001&store_num=		
GeoTracker Data:	Not Reported		

E26
North
1/2 - 1 Mile
Higher

FED USGS **USGS40000186360**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002N002E36M001M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Dune Sand	Aquifer Type:	Not Reported
Construction Date:	19730305	Well Depth:	130
Well Depth Units:	ft	Well Hole Depth:	141
Well Hole Depth Units:	ft		

27
SSE
1/2 - 1 Mile
Lower

FED USGS **USGS40000186246**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	001N002E12G001M	Type:	Well

Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19730716	Well Depth:	110
Well Depth Units:	ft	Well Hole Depth:	160
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1973-07-16
Feet below surface:	28.00	Feet to sea level:	Not Reported
Note:	Not Reported		

28
East
1/2 - 1 Mile
Lower

CA WELLS 62

Seq:	62	Prim sta c:	01N/02E-01J03 M
Frds no:	0707524001	County:	07
District:	37	User id:	07C
System no:	0707524	Water type:	G
Source nam:	WELL 01	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	375740.0	Longitude:	1214136.0
Precision:	3	Status:	AR
Comment 1:	Not Reported	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:	0707524	System nam:	Short Stop #151
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		

29
ENE
1/2 - 1 Mile
Lower

CA WELLS 76

Seq:	76	Prim sta c:	01N/03E-06D03 M
Frds no:	0707513001	County:	07
District:	37	User id:	07C
System no:	0707513	Water type:	G
Source nam:	WELL 01	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	375803.0	Longitude:	1214139.0
Precision:	3	Status:	AR
Comment 1:	Not Reported	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:	0707513	System nam:	Maeda Apts.
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

30
NE
1/2 - 1 Mile
Lower

CA WELLS 1690

Seq:	1690	Prim sta c:	02N/02E-36R01 M
Frds no:	0706003001	County:	07
District:	37	User id:	07C
System no:	0706003	Water type:	G
Source nam:	WELL 01	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	375817.0	Longitude:	1214149.0
Precision:	3	Status:	AR
Comment 1:	Not Reported	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:	0706003	System nam:	Brown Water System
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		

31
ENE
1/2 - 1 Mile
Lower

FED USGS USGS40000186322

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002N003E31N001M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19780309	Well Depth:	93
Well Depth Units:	ft	Well Hole Depth:	132
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1978-03-09
Feet below surface:	42.00	Feet to sea level:	Not Reported
Note:	Not Reported		

32
South
1/2 - 1 Mile
Lower

CA WELLS 79

Seq:	79	Prim sta c:	01N/03E-06N02 M
Frds no:	0710004007	County:	07
District:	04	User id:	ENG
System no:	0710004	Water type:	G
Source nam:	WELL 07	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	375656.0	Longitude:	1214225.0

Precision:	3	Status:	AR
Comment 1:	Not Reported	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:	0710004	System nam:	City Of Brentwood
Hqname:	Not Reported	Address:	708 THIRD STREET
City:	BRENTWOOD	State:	Not Reported
Zip:	94513	Zip ext:	Not Reported
Pop serv:	8255	Connection:	2167
Area serve:	BRENTWOOD		

Sample date:	24-AUG-17	Finding:	5.8
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		

Sample date:	24-AUG-17	Finding:	13.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		

Sample date:	24-AUG-17	Finding:	1.3
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		

Sample date:	24-AUG-17	Finding:	890.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		

Sample date:	24-AUG-17	Finding:	9.5
Chemical:	SELENIUM	Report units:	UG/L
Dlr:	5.		

Sample date:	24-AUG-17	Finding:	8.7
Chemical:	VANADIUM	Report units:	UG/L
Dlr:	3.		

Sample date:	24-AUG-17	Finding:	1500.
Chemical:	BORON	Report units:	UG/L
Dlr:	100.		

Sample date:	24-AUG-17	Finding:	2.4
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		

Sample date:	24-AUG-17	Finding:	0.34
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		

Sample date:	24-AUG-17	Finding:	220.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		

Sample date:	24-AUG-17	Finding:	180.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		

Sample date:	24-AUG-17	Finding:	3.
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	24-AUG-17	Finding:	160.

Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	24-AUG-17	Finding:	37.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	24-AUG-17	Finding:	80.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	24-AUG-17	Finding:	350.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	24-AUG-17	Finding:	3.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	24-AUG-17	Finding:	250.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	24-AUG-17	Finding:	210.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	24-AUG-17	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	24-AUG-17	Finding:	1400.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	24-AUG-17	Finding:	1.1
Chemical:	GROSS BETA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-AUG-17	Finding:	1.8
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-AUG-17	Finding:	1.2
Chemical:	GROSS BETA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	24-AUG-17	Finding:	4.9
Chemical:	GROSS BETA	Report units:	PCI/L
Dlr:	4.		
Sample date:	24-AUG-17	Finding:	3.4
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	24-AUG-17	Finding:	2.
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	1.1
Chemical:	GROSS BETA MDA95	Report units:	PCI/L
Dlr:	0.		

Sample date:	31-MAY-16	Finding:	1300.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	3.2
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	31-MAY-16	Finding:	13.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	0.16
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	31-MAY-16	Finding:	1.2
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	820.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	1.3
Chemical:	GROSS BETA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	0.21
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	9.
Chemical:	SELENIUM	Report units:	UG/L
Dlr:	5.		
Sample date:	31-MAY-16	Finding:	7.5
Chemical:	VANADIUM	Report units:	UG/L
Dlr:	3.		
Sample date:	31-MAY-16	Finding:	1600.
Chemical:	BORON	Report units:	UG/L
Dlr:	100.		
Sample date:	31-MAY-16	Finding:	0.32
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	31-MAY-16	Finding:	220.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	31-MAY-16	Finding:	170.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	3.3
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	170.
Chemical:	SODIUM	Report units:	MG/L

Dlr:	0.		
Sample date:	31-MAY-16	Finding:	36.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	78.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	340.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	3.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	31-MAY-16	Finding:	240.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	200.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	7.9
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	31-MAY-16	Finding:	1.4
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	1400.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	14-APR-15	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	14-APR-15	Finding:	200.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	250.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	330.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	76.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	35.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	14-APR-15	Finding:	160.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	2.9
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	190.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	240.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	14-APR-15	Finding:	0.33
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	14-APR-15	Finding:	1400.
Chemical:	BORON	Report units:	UG/L
Dlr:	100.		
Sample date:	14-APR-15	Finding:	9.1
Chemical:	VANADIUM	Report units:	UG/L
Dlr:	3.		
Sample date:	14-APR-15	Finding:	5.7
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	14-APR-15	Finding:	0.24
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	2.3
Chemical:	GROSS BETA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	900.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	14-APR-15	Finding:	1.3
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	14-APR-15	Finding:	6.9e-002
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	14-APR-15	Finding:	13.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	14-APR-15	Finding:	3000.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-APR-15	Finding:	1.4
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L

Dlr:	0.		
Sample date:	14-APR-15	Finding:	2.2
Chemical:	GROSS BETA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	2700.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	17-JUN-14	Finding:	0.5
Chemical:	GROSS BETA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	2.2
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	1.7
Chemical:	GROSS BETA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	1400.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	7.7
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	180.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	210.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	320.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	73.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	34.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	180.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	3.4
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	200.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		

Sample date:	17-JUN-14	Finding:	220.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	17-JUN-14	Finding:	0.33
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	17-JUN-14	Finding:	1400.
Chemical:	BORON	Report units:	UG/L
Dlr:	100.		
Sample date:	17-JUN-14	Finding:	7.8
Chemical:	VANADIUM	Report units:	UG/L
Dlr:	3.		
Sample date:	17-JUN-14	Finding:	860.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	0.89
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	6900.
Chemical:	CARBON DIOXIDE	Report units:	UG/L
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	6.7e-002
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	17-JUN-14	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	17-JUN-14	Finding:	0.8
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	900.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	0.13
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	29-MAY-13	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	2900.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	29-MAY-13	Finding:	1400.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported

Dlr:	0.		
Sample date:	29-MAY-13	Finding:	180.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	210.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	340.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	78.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	36.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	180.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	3.2
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	180.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	29-MAY-13	Finding:	230.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	29-MAY-13	Finding:	0.31
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	27-JUN-12	Finding:	1200.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-JUN-12	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	27-JUN-12	Finding:	180.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	27-JUN-12	Finding:	220.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	27-JUN-12	Finding:	370.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		

Sample date:	27-JUN-12	Finding:	82.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	27-JUN-12	Finding:	39.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	27-JUN-12	Finding:	220.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	27-JUN-12	Finding:	3.2
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	27-JUN-12	Finding:	290.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	27-JUN-12	Finding:	250.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	27-JUN-12	Finding:	0.38
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	27-JUN-12	Finding:	2.5
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	27-JUN-12	Finding:	9.7
Chemical:	SELENIUM	Report units:	UG/L
Dlr:	5.		
Sample date:	27-JUN-12	Finding:	1100.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	27-JUN-12	Finding:	5.5
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	27-JUN-12	Finding:	0.13
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	27-JUN-12	Finding:	13.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	27-JUN-12	Finding:	1700.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance	Database	EDR ID Number

1
NE
1/4 - 1/2 Mile

OIL_GAS **CAOG14000007370**

API #:	0401300250	Well #:	1-1
Well Status:	Plugged	Well Type:	Dry Hole
Lease Name:	Cunha	Field Name:	Any Field
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
Spud Date:	09/18/1963		

2
SE
1/4 - 1/2 Mile

OIL_GAS **CAOG14000215234**

API #:	0401320239	Well #:	1-1
Well Status:	Plugged	Well Type:	Gas
Lease Name:	Prewett-Lamport	Field Name:	Oakley, South, Gas
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
Spud Date:	09/10/1984		

3
SSE
1/2 - 1 Mile

OIL_GAS **CAOG14000007371**

API #:	0401300251	Well #:	3-1
Well Status:	Plugged	Well Type:	Dry Hole
Lease Name:	Prewett	Field Name:	Any Field
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
Spud Date:	03/06/1963		

4
WSW
1/2 - 1 Mile

OIL_GAS **CAOG14000007500**

API #:	0401320181	Well #:	2-1
Well Status:	Plugged	Well Type:	Dry Hole
Lease Name:	Fairview	Field Name:	Any Field
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	Y
Spud Date:	08/14/1981		

Map ID Direction Distance	Database	EDR ID Number

5
SSE
1/2 - 1 Mile

OIL_GAS **CAOG14000007556**

API #:	0401320359	Well #:	1
Well Status:	Plugged	Well Type:	Dry Gas
Lease Name:	Disco Inferno	Field Name:	Any Field
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	Y
Spud Date:	01/16/2001		

A6
ESE
1/2 - 1 Mile

OIL_GAS **CAOG14000007467**

API #:	0401320092	Well #:	1
Well Status:	Plugged	Well Type:	Dry Hole
Lease Name:	Marsh Creek Unit B	Field Name:	Any Field
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
Spud Date:	12/10/1972		

7
SSE
1/2 - 1 Mile

OIL_GAS **CAOG14000007516**

API #:	0401320230	Well #:	12-1
Well Status:	Plugged	Well Type:	Dry Hole
Lease Name:	S & S Farms	Field Name:	Any Field
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
Spud Date:	04/26/1984		

8
NW
1/2 - 1 Mile

OIL_GAS **CAOG14000007501**

API #:	0401320183	Well #:	58
Well Status:	Plugged	Well Type:	Dry Hole
Lease Name:	Transamerica	Field Name:	Any Field
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
Spud Date:	07/31/1981		

Map ID Direction Distance	Database	EDR ID Number

A9
ESE
1/2 - 1 Mile

OIL_GAS **CAOG14000215240**

API #:	0401320205	Well #:	1
Well Status:	Plugged	Well Type:	Dry Gas
Lease Name:	NGC-Cesa	Field Name:	Oakley, South, Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	Y
Spud Date:	04/09/1983		

10
SW
1/2 - 1 Mile

OIL_GAS **CAOG14000007536**

API #:	0401320288	Well #:	2-1
Well Status:	Plugged	Well Type:	Dry Hole
Lease Name:	Shaffer	Field Name:	Any Field
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	Y
Spud Date:	10/21/1989		

11
North
1/2 - 1 Mile

OIL_GAS **CAOG14000007519**

API #:	0401320237	Well #:	1
Well Status:	Plugged	Well Type:	Dry Hole
Lease Name:	Arkoma-Sherman	Field Name:	Any Field
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
Spud Date:	08/20/1984		

12
WNW
1/2 - 1 Mile

OIL_GAS **CAOG14000202166**

API #:	0401300252	Well #:	1
Well Status:	Plugged	Well Type:	Dry Hole
Lease Name:	Carpenter	Field Name:	River Break Gas
Area Name:	South	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
Spud Date:	12/21/1963		

Map ID Direction Distance	Database	EDR ID Number

B13
SE
1/2 - 1 Mile

OIL_GAS **CAOG14000215243**

API #:	0401320097	Well #:	2
Well Status:	Plugged	Well Type:	Gas
Lease Name:	Marsh Creek Unit	Field Name:	Oakley, South, Gas
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	Y
Spud Date:	10/27/1973		

B14
SE
1/2 - 1 Mile

OIL_GAS **CAOG14000215242**

API #:	0401320087	Well #:	1
Well Status:	Plugged	Well Type:	Dry Gas
Lease Name:	Marsh Creek Unit	Field Name:	Oakley, South, Gas
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
Spud Date:	10/06/1972		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94513	5	0

Federal EPA Radon Zone for CONTRA COSTA County: 2

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 CONTRA COSTA COUNTY, CA

Number of sites tested: 55

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.760 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.300 pCi/L	100%	0%	0%
Basement	0.525 pCi/L	100%	0%	0%

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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7590, 7600 & 7650 Lone Tree Way

7590, 7600 & 7650 Lone Tree Way

Brentwood, CA 94513

Inquiry Number: 6390789.3

March 03, 2021

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

03/03/21

Site Name:	Client Name:
7590, 7600 & 7650 Lone Tree \	AllWest Environmental Inc.
7590, 7600 & 7650 Lone Tree \	2141 Mission Street, Suite 100
Brentwood, CA 94513	San Francisco, CA 94110
EDR Inquiry # 6390789.3	Contact: Klaudia Barberi

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by AllWest Environmental Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

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 # 970C-4D20-BAD9

PO # 202142.20

Project 7590 Lone Tree Way, Brentwood

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 #: 970C-4D20-BAD9

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

The Sanborn Library LLC Since 1866™

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7590, 7600 & 7650 Lone Tree Way

7590, 7600 & 7650 Lone Tree Way

Brentwood, CA 94513

Inquiry Number: 6390789.8

March 03, 2021

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

03/03/21

Site Name:

7590, 7600 & 7650 Lone Tree
7590, 7600 & 7650 Lone Tree
Brentwood, CA 94513
EDR Inquiry # 6390789.8

Client Name:

AllWest Environmental Inc.
2141 Mission Street, Suite 100
San Francisco, CA 94110
Contact: Klaudia Barberi

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
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1998	1"=500'	Flight Date: August 22, 1998	USDA
1993	1"=500'	Acquisition Date: June 16, 1993	USGS/DOQQ
1984	1"=500'	Flight Date: June 29, 1984	USDA
1982	1"=500'	Flight Date: July 05, 1982	USDA
1979	1"=500'	Flight Date: August 16, 1979	USDA
1972	1"=500'	Flight Date: July 06, 1972	USDA
1966	1"=500'	Flight Date: May 16, 1966	USDA
1963	1"=500'	Flight Date: July 15, 1963	EDR Proprietary Aerial Viewpoint
1959	1"=500'	Flight Date: April 11, 1959	USDA
1949	1"=500'	Flight Date: October 13, 1949	USGS
1939	1"=500'	Flight Date: June 28, 1939	USDA

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INQUIRY #: 6390789.8
YEAR: 2016
= 500'
N
EDR

INQUIRY #: 6390789.8
YEAR: 2012
= 500'
N
EDR

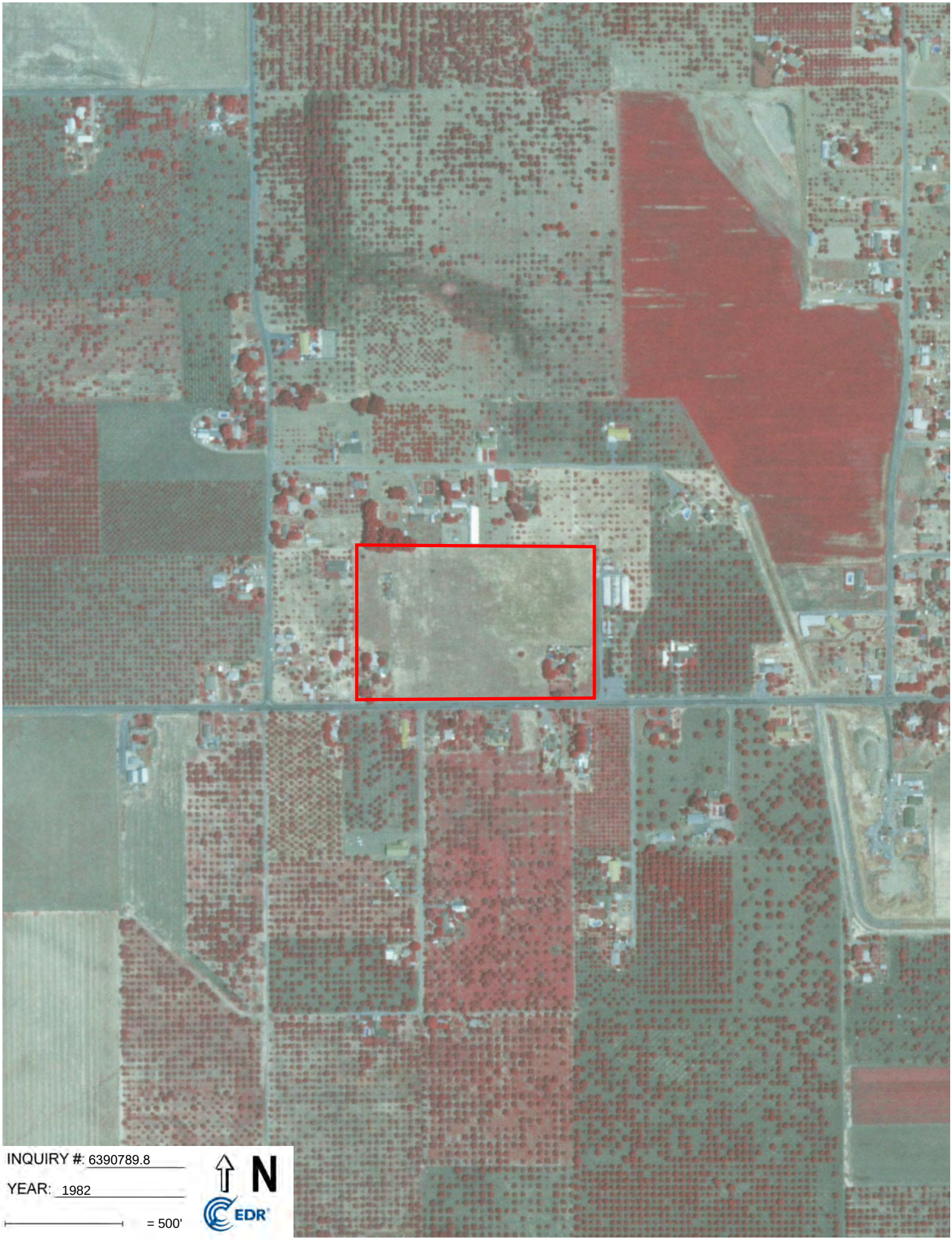
INQUIRY #: 6390789.8
YEAR: 2009
= 500'
N
EDR

INQUIRY #: 6390789.8
YEAR: 2006
= 500'
N
EDR

INQUIRY #: 6390789.8
YEAR: 1998
= 500'
N
EDR

INQUIRY #: 6390789.8
YEAR: 1993
= 500'
N
EDR

INQUIRY #: 6390789.8
YEAR: 1984
= 500'
N
EDR


INQUIRY #: 6390789.8
YEAR: 1982
= 500'
N
EDR

INQUIRY #: 6390789.8
YEAR: 1979
= 500'
N
EDR

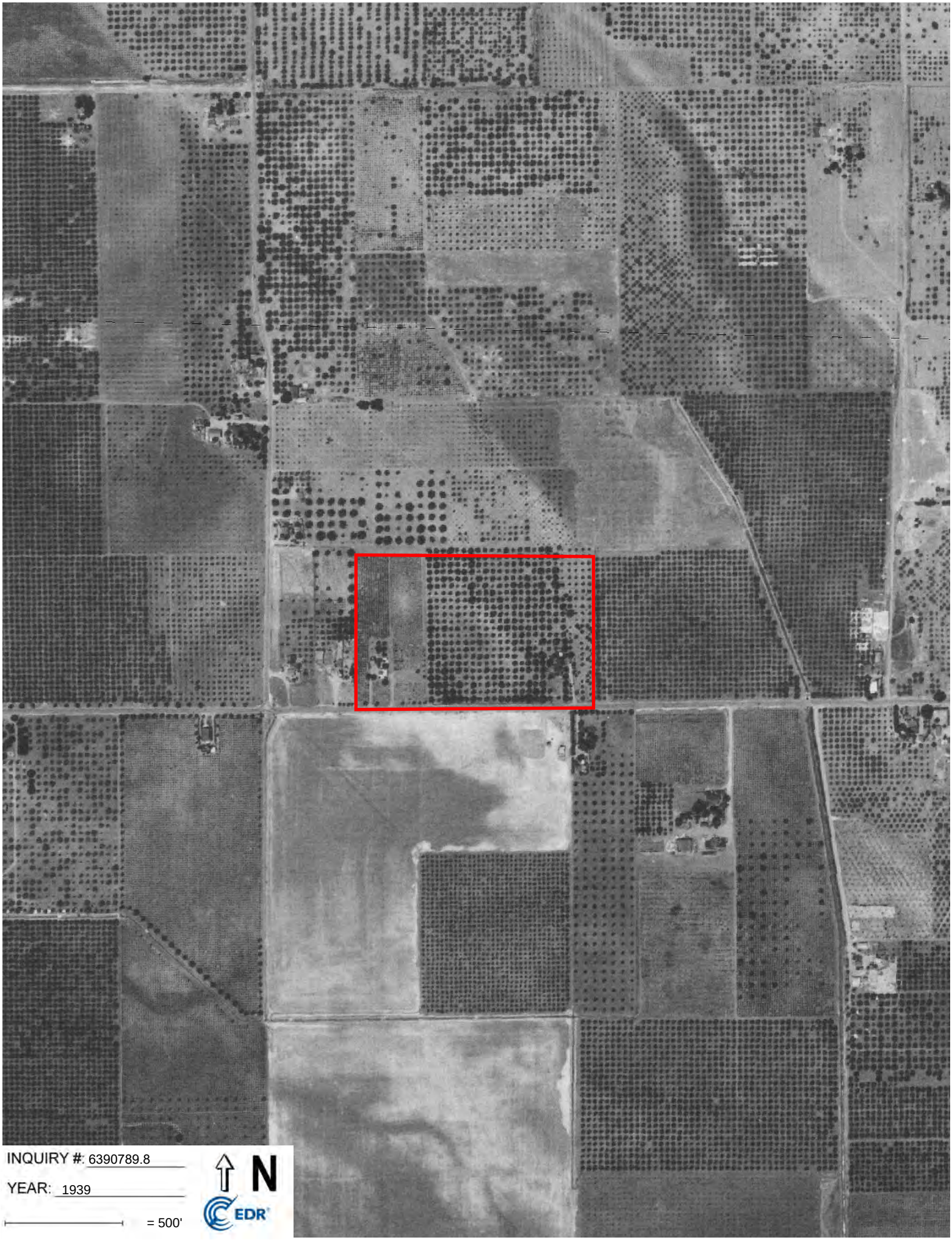
INQUIRY #: 6390789.8
YEAR: 1972
= 500'
N
EDR

INQUIRY #: 6390789.8
YEAR: 1966
= 500'
N
EDR

INQUIRY #: 6390789.8
YEAR: 1963
= 500'
N
EDR

INQUIRY #: 6390789.8
YEAR: 1959
= 500'
N
EDR

INQUIRY #: 6390789.8
YEAR: 1949
= 500'
N
EDR


INQUIRY #: 6390789.8
YEAR: 1939
= 500'
N
EDR

7590, 7600 & 7650 Lone Tree Way

7590, 7600 & 7650 Lone Tree Way

Brentwood, CA 94513

Inquiry Number: 6390789.4

March 03, 2021

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

03/03/21

Site Name:	Client Name:
7590, 7600 & 7650 Lone Tree \	AllWest Environmental Inc.
7590, 7600 & 7650 Lone Tree \	2141 Mission Street, Suite 100
Brentwood, CA 94513	San Francisco, CA 94110
EDR Inquiry # 6390789.4	Contact: Klaudia Barberi

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by AllWest Environmental Inc. 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:		***Coordinates:***	
P.O.#	202142.20	**Latitude:**	37.962549 37° 57' 45" North
Project:	7590 Lone Tree Way, Brentwo	**Longitude:**	-121.710835 -121° 42' 39" West
		UTM Zone:	Zone 10 North
		UTM X Meters:	613245.13
		UTM Y Meters:	4202443.55
		Elevation:	78.00' above sea level

Maps Provided:

2012
1978
1968
1954
1943
1940
1916
1914

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets

Brentwood
2012
7.5-minute, 24000

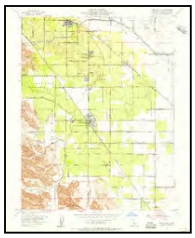
1978 Source Sheets

Brentwood
1978
7.5-minute, 24000
Aerial Photo Revised 1974

1968 Source Sheets

Brentwood
1968
7.5-minute, 24000
Aerial Photo Revised 1968

1954 Source Sheets

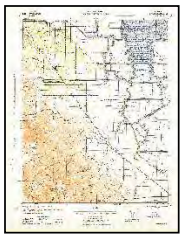


Brentwood
1954
7.5-minute, 24000
Aerial Photo Revised 1949

Topo Sheet Key

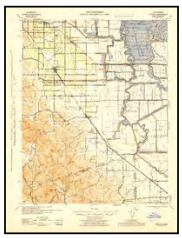
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1943 Source Sheets



BYRON
1943
15-minute, 62500

1940 Source Sheets

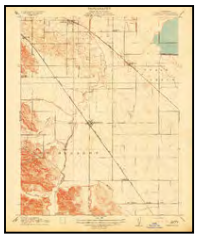


Byron
1940
15-minute, 62500
Aerial Photo Revised 1940

1916 Source Sheets

Byron
1916
15-minute, 62500

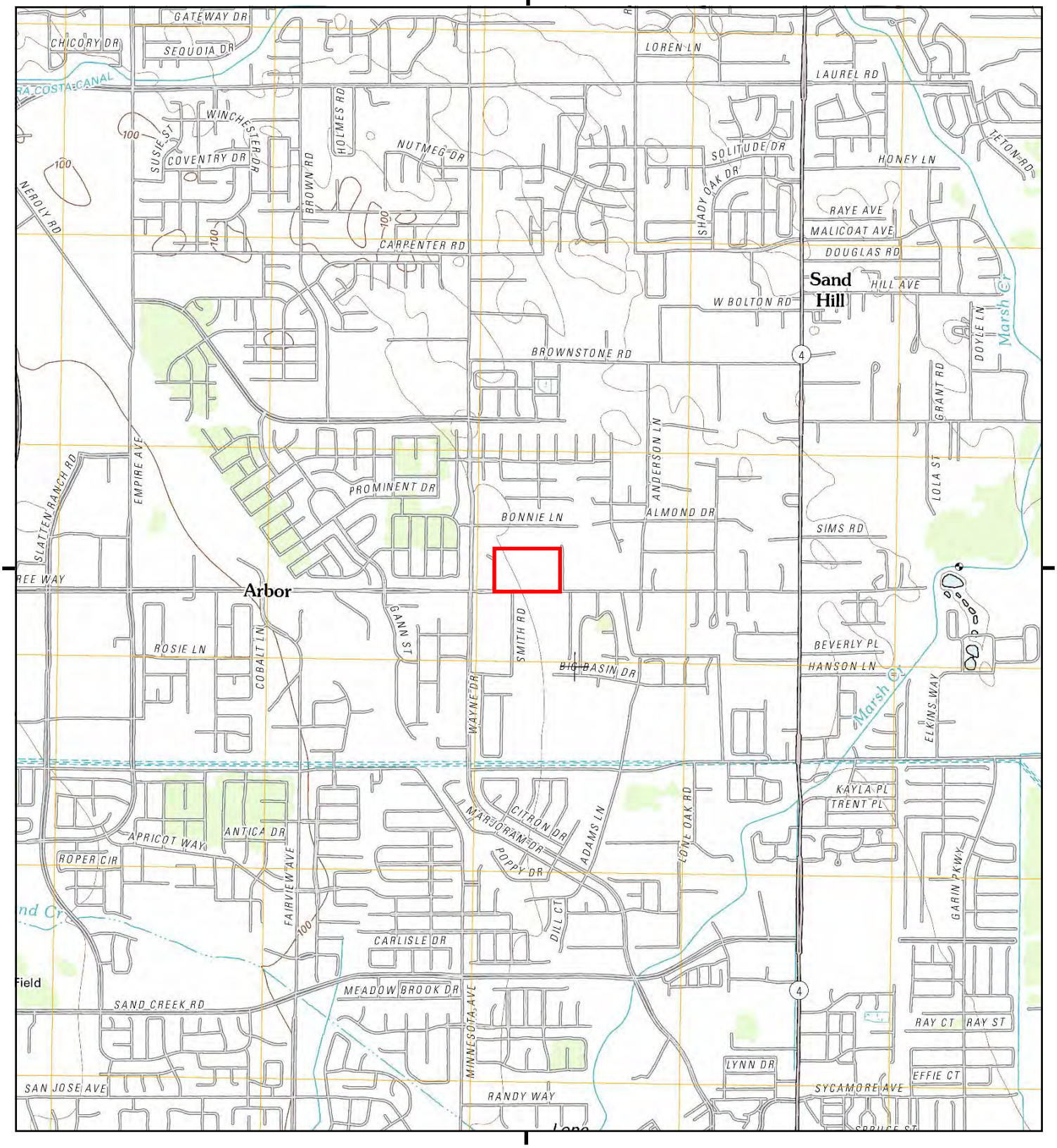
1914 Source Sheets



Brentwood
1914
7.5-minute, 31680

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

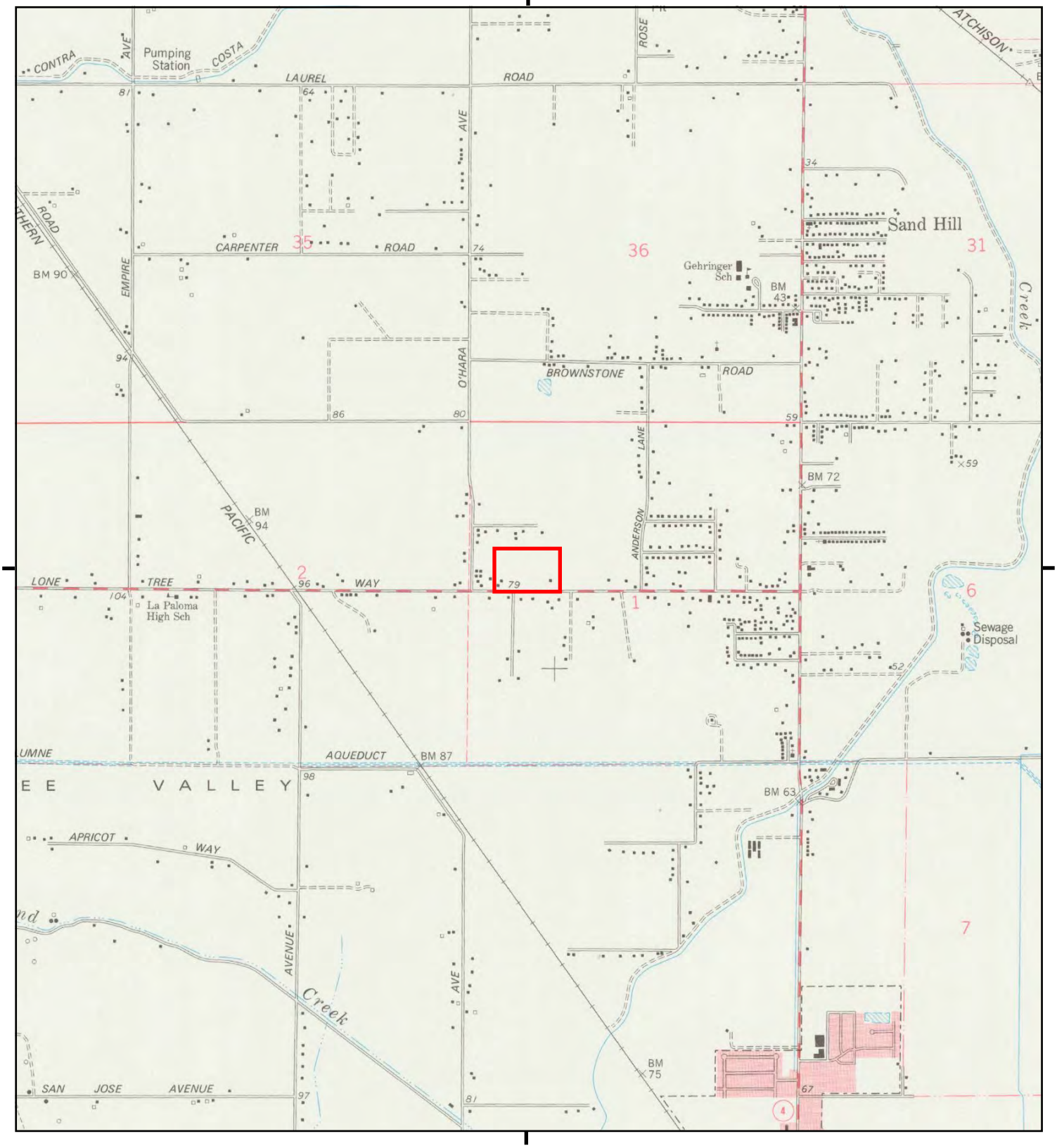
TP, Brentwood, 2012, 7.5-minute

SITE NAME: 7590, 7600 & 7650 Lone Tree Way
ADDRESS: 7590, 7600 & 7650 Lone Tree Way
Brentwood, CA 94513
CLIENT: AllWest Environmental Inc.

N

Historical Topo Map

1978



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

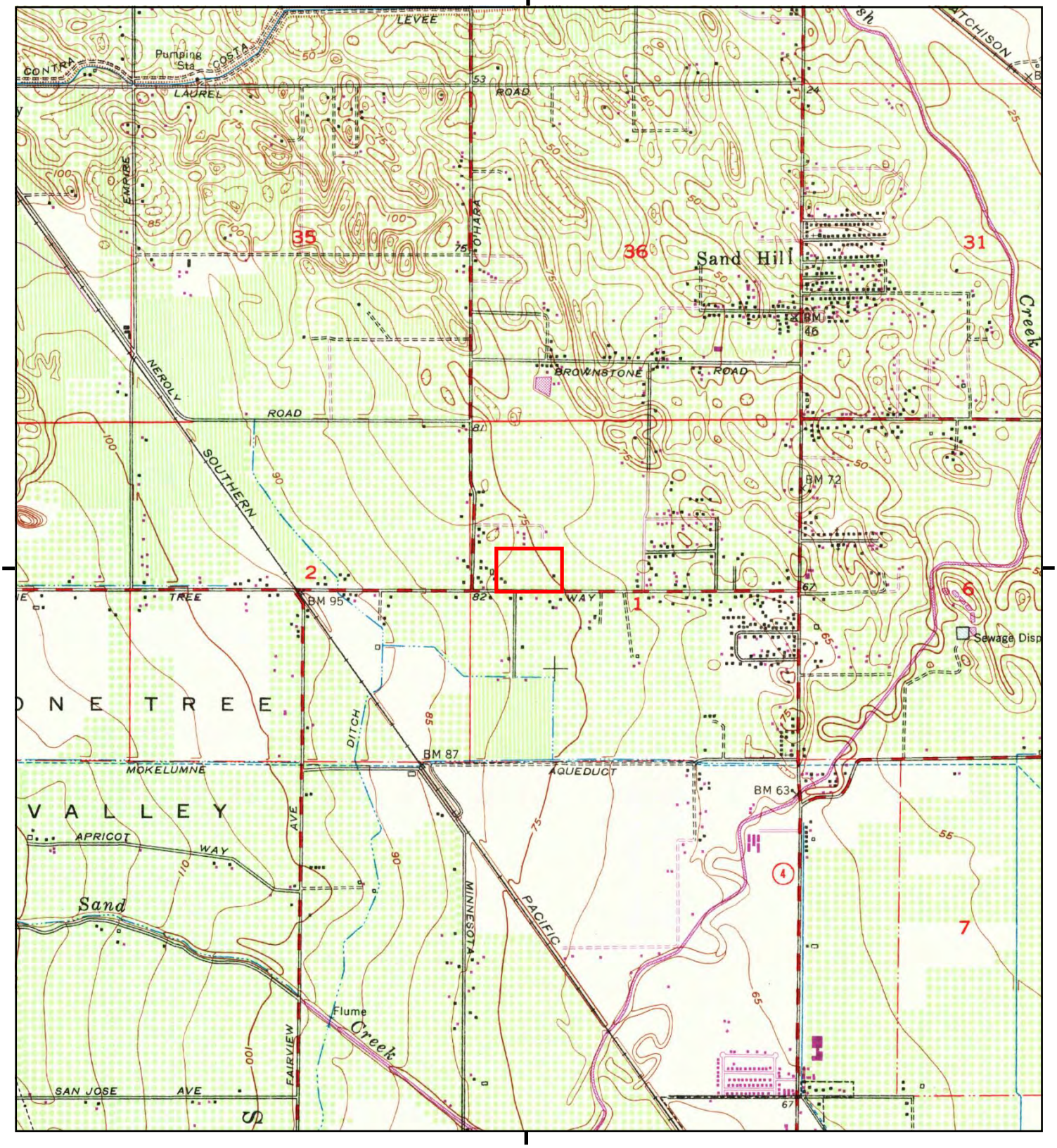
TP, Brentwood, 1978, 7.5-minute

SITE NAME: 7590, 7600 & 7650 Lone Tree Way
ADDRESS: 7590, 7600 & 7650 Lone Tree Way
Brentwood, CA 94513
CLIENT: AllWest Environmental Inc.

N

Historical Topo Map

1968



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

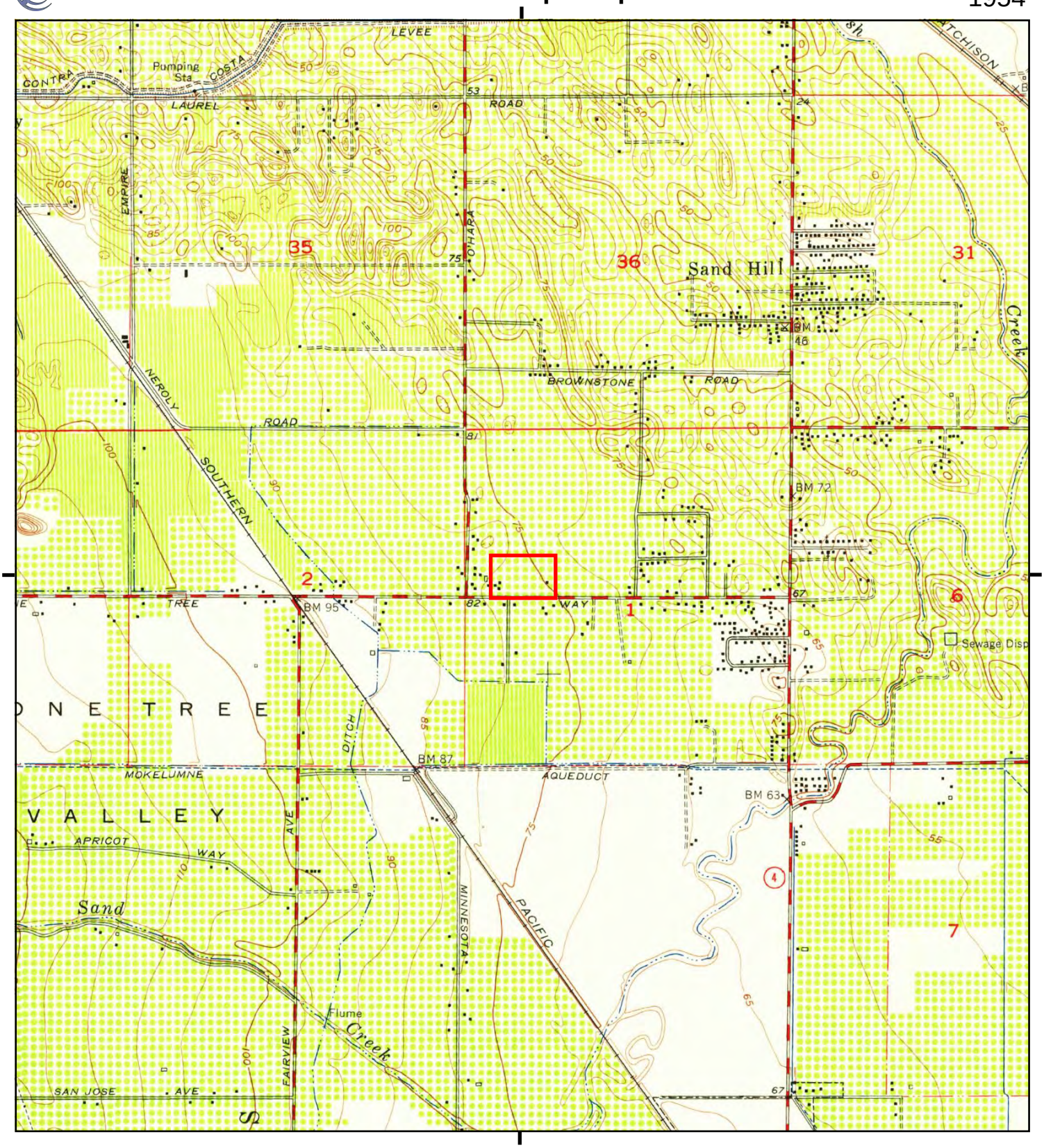
TP, Brentwood, 1968, 7.5-minute

SITE NAME: 7590, 7600 & 7650 Lone Tree Way
ADDRESS: 7590, 7600 & 7650 Lone Tree Way
Brentwood, CA 94513
CLIENT: AllWest Environmental Inc.

N

Historical Topo Map

1954



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, Brentwood, 1954, 7.5-minute

SITE NAME: 7590, 7600 & 7650 Lone Tree Way
ADDRESS: 7590, 7600 & 7650 Lone Tree Way
Brentwood, CA 94513
CLIENT: AllWest Environmental Inc.

N

Historical Topo Map

1943

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

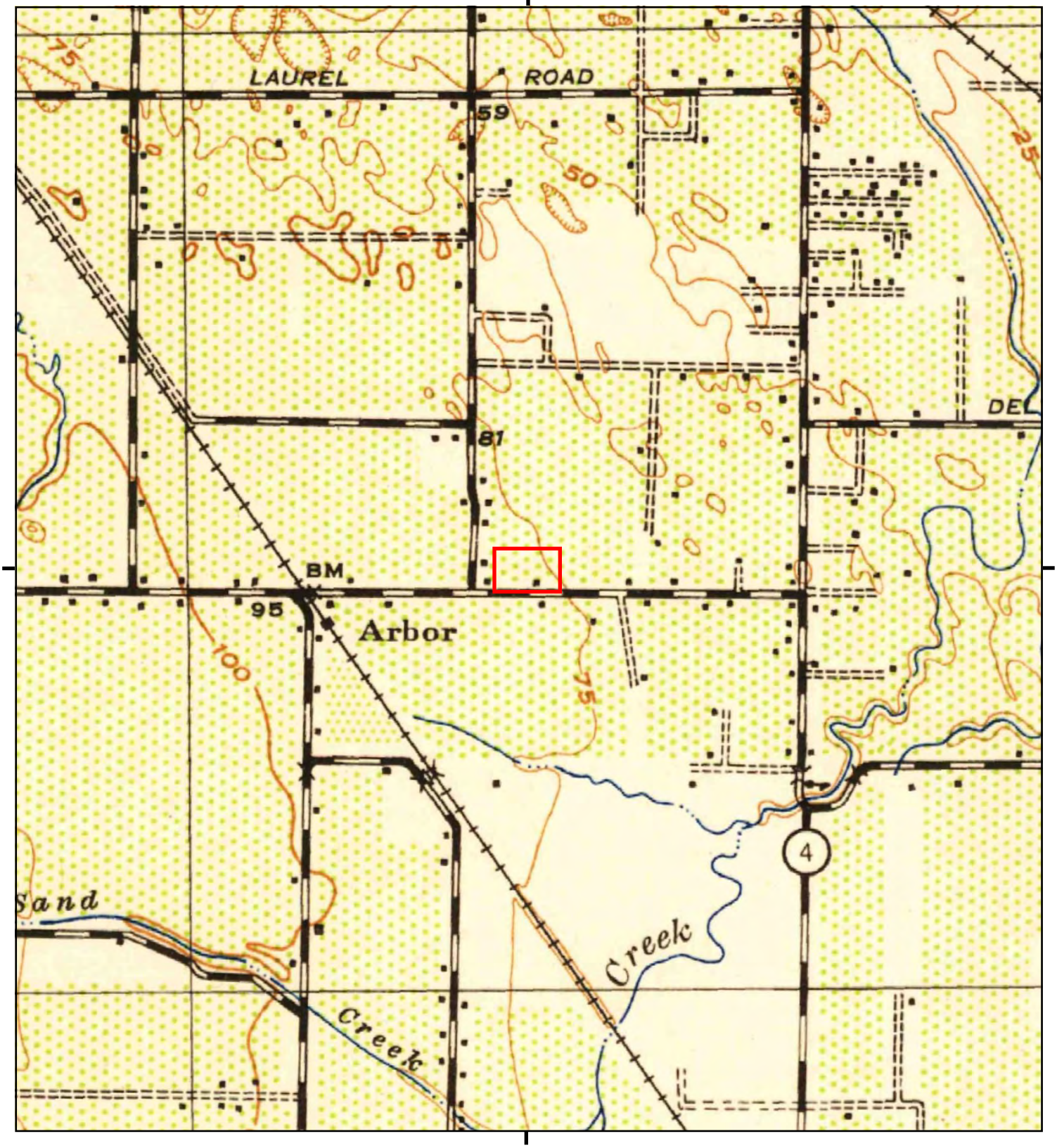
TP, BYRON, 1943, 15-minute

SITE NAME: 7590, 7600 & 7650 Lone Tree Way
ADDRESS: 7590, 7600 & 7650 Lone Tree Way
Brentwood, CA 94513
CLIENT: AllWest Environmental Inc.

N

Historical Topo Map

1940



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

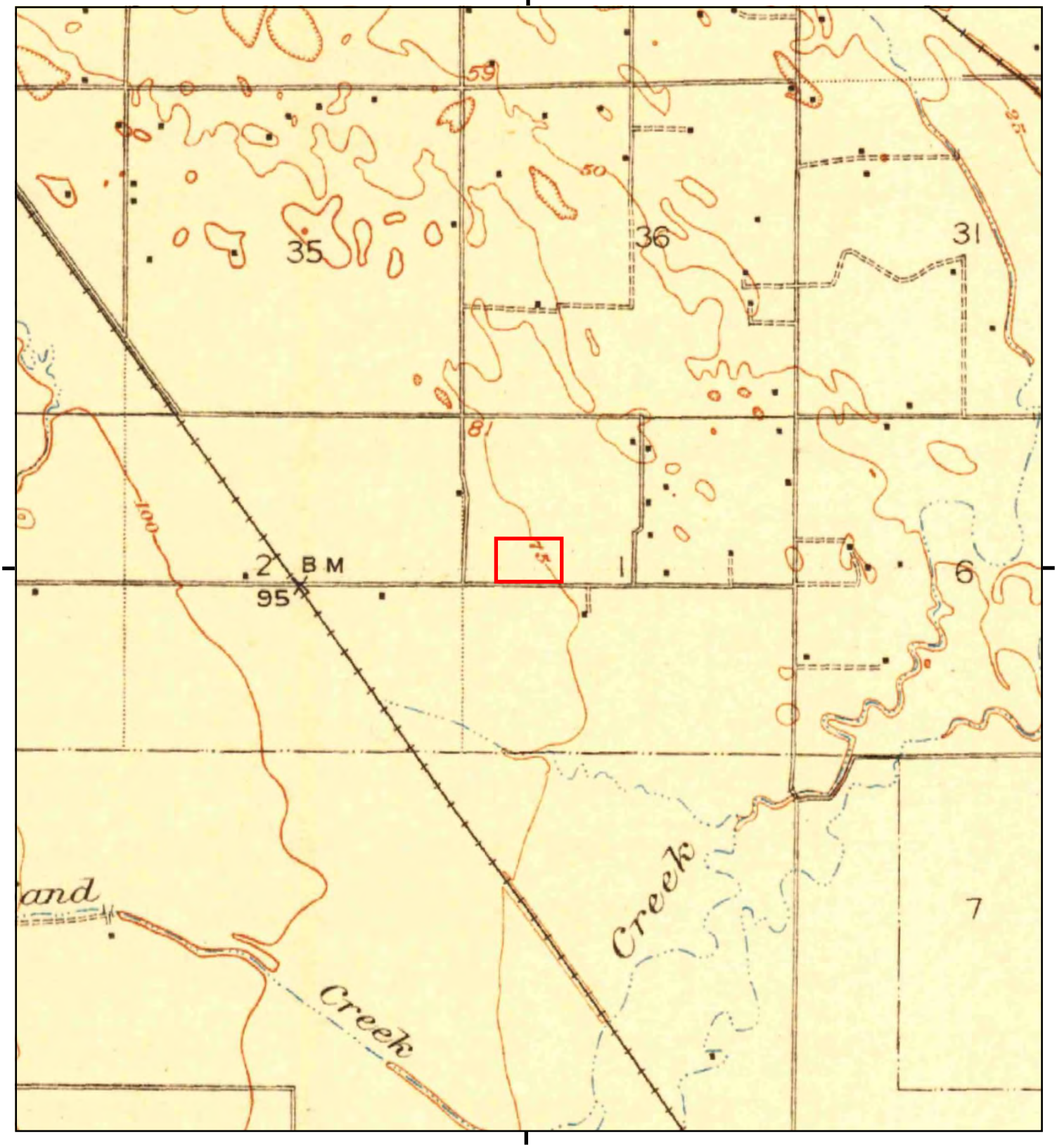
TP, Byron, 1940, 15-minute

SITE NAME: 7590, 7600 & 7650 Lone Tree Way
ADDRESS: 7590, 7600 & 7650 Lone Tree Way
Brentwood, CA 94513
CLIENT: AllWest Environmental Inc.

N

Historical Topo Map

1916



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

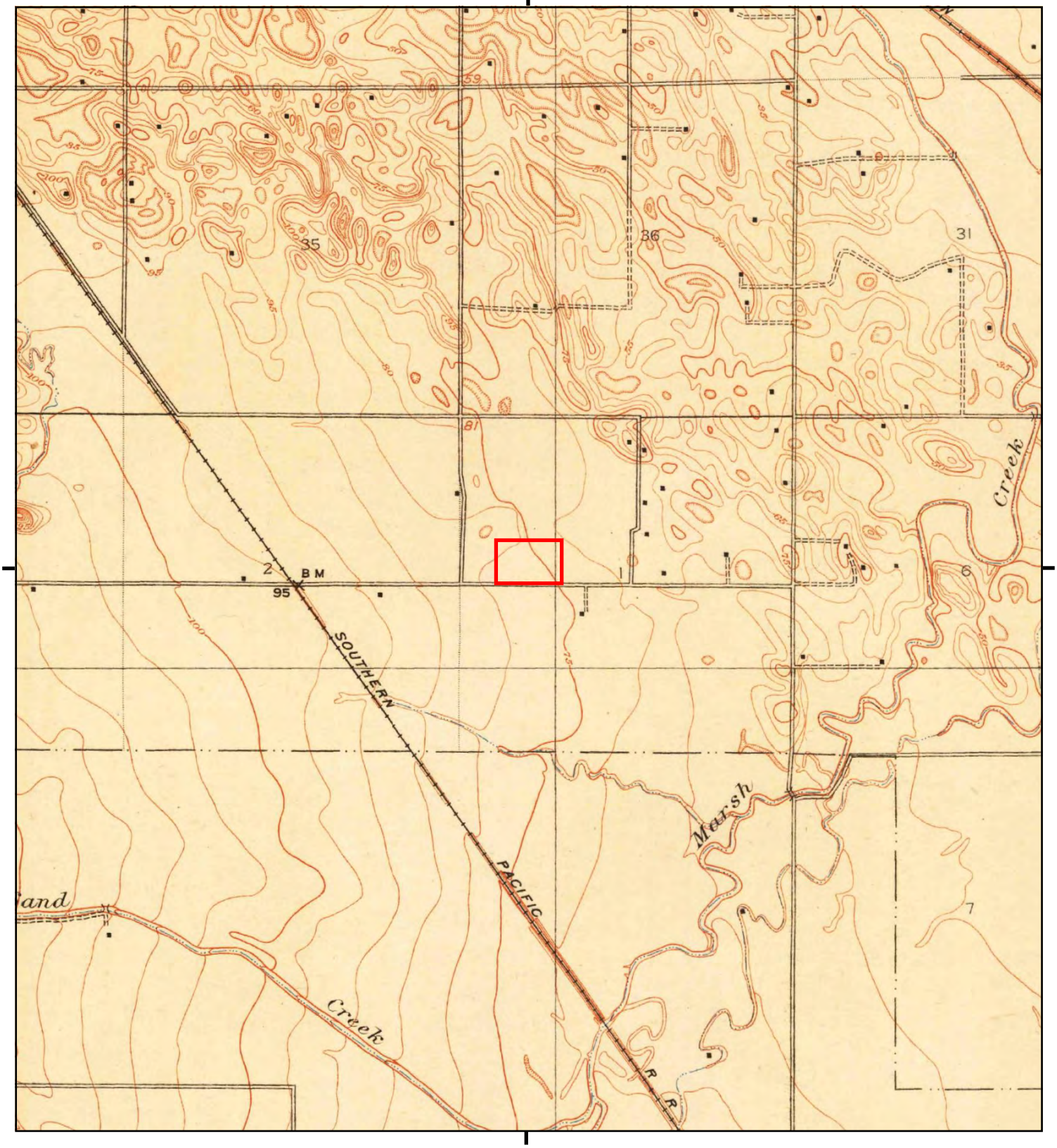
TP, Byron, 1916, 15-minute

SITE NAME: 7590, 7600 & 7650 Lone Tree Way
ADDRESS: 7590, 7600 & 7650 Lone Tree Way
Brentwood, CA 94513
CLIENT: AllWest Environmental Inc.

N

Historical Topo Map

1914



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, Brentwood, 1914, 7.5-minute

SITE NAME: 7590, 7600 & 7650 Lone Tree Way
ADDRESS: 7590, 7600 & 7650 Lone Tree Way
Brentwood, CA 94513
CLIENT: AllWest Environmental Inc.

N

7590, 7600 & 7650 Lone Tree Way
7590, 7600 & 7650 Lone Tree Way
Brentwood, CA 94513

Inquiry Number: 6390789.5
March 08, 2021

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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Executive Summary

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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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Data by infoUSA®

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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
1989	☐	☐	Haines Criss-Cross Directory
1985	☐	☐	Haines Criss-Cross Directory
1980	☐	☐	Haines Criss-Cross Directory
1975	☐	☐	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

7590, 7600 & 7650 Lone Tree Way
Brentwood, CA 94513

Year	***CD Image***	***Source***	
LONE TREE WAY			
2017	pg A1	EDR Digital Archive	
2014	pg A3	EDR Digital Archive	
2010	pg A5	EDR Digital Archive	
2005	pg A7	EDR Digital Archive	
2000	pg A9	EDR Digital Archive	
1995	pg A11	EDR Digital Archive	
1992	pg A13	EDR Digital Archive	
1989	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1985	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1980	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1975	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source

FINDINGS

CROSS STREETS

Year	CD Image	Source	
OHARA AVE			
2017	pg. A2	EDR Digital Archive	
2014	pg. A4	EDR Digital Archive	
2010	pg. A6	EDR Digital Archive	
2005	pg. A8	EDR Digital Archive	
2000	pg. A10	EDR Digital Archive	
1995	pg. A12	EDR Digital Archive	
1992	pg. A14	EDR Digital Archive	
1989	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1985	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1980	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source
1975	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

LONE TREE WAY 2017

6900	ACORN SELF STORAGE
	WATERS, JACKIE
6935	LITTLE CAESARS
	TRI CITY AUTO PLAZA INC
	TRI CITY EXPRESS LUBE
	VIZ CLEANERS
6945	BRENTWOOD AUTO SPA
7021	VALLEY OAK NURSERY INC
7357	HINOJOS, JERRY M
7510	FRIZZELL, DAVID B
7560	MURRAY, MARY D
7600	MACHADO, FRED M
7701	BRENTWOOD MUSLIM COMM CTR
	BRODERICK, TIMOTHY S
7721	VELEZ, JOSE S
7731	ARELLANO, MARTIN
7840	DANNENBERG, HENRY J
7920	MCGOVERAN, MARK E
7950	GUINN, SHAWN
8011	MALCOLM, ASHLEY
8091	JONES, RONALD H
8131	HALFORD, STANLEY T
8145	MACHA, NICANOR
8153	GUTIERREZ, FERNANDO
8193	ARELLANO, ANA
8215	BERNAL, ARMANDO B

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

OHARA AVE 2017

2714	REYES, NICOLE E
2716	MENDOZA, ARNULFO
2752	RADER, JIM E
2850	RODRIGUEZ, MARIA S
	RODRIGUEZ, MIGUEL A
2882	SMART START PRESCHOOL
2960	PUCINO, SHARON
3025	GREEN, CLAUDIA G
3225	CHO, YUN H
3300	DRUMMOND, GEORGE R
3325	DOMINGUEZ, HAROLD D
4501	BUMPER 2 BUMPER AUTOMOTIVE
	BUNNELLS CABINETS
	CROSSFIT BRENTWOOD
	SUGIMOTO DENTAL LABORATORY
	WORD OF LIFE
4505	DOGGIE DEPOT
4510	FRESENIUS MEDICAL SERV OF BRENTWOOD
4515	A LOCKSMITH A EMERGENCY
	CASEYS AUTO BODY
4519	AMY OLSEN DVM
	BRENTWOOD VETERINARY HOSPITAL
	CORY SIMS DVM
	DEBBIE SHARP DVM
	JESSICA RUYGT DVM
	MEGAN TRACEWELL DVM
	THOMAS ODOM DVM
	TOM HANSEN DVM
4525	HERTZ
	HERTZ CAR RENTAL
4535	AAA LOCKSMITH
	MIKES AUTO BODY

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

LONE TREE WAY 2014

6900	ACORN SELF STORAGE
	WATERS, JACKIE
6935	LITTLE CAESARS
	LITTLE CAESARS PIZZA
	TRI CITY AUTO PLAZA INC
	TRI CITY EXPRESS LUBE
	VIZ CLEANERS INC
6945	BRENTWOOD AUTO SPA
7021	UGENIS AT VALLEY OAK NURSERY
	VALLEY OAK NURSERY INC
7357	HINOJOS, JERRY M
7451	SPINELLI, MARY J
7510	FRIZZELL, DAVID B
7540	ONTIVEROS, JOHN
7590	OCCUPANT UNKNOWN,
7600	MACHADO, FRED M
7650	ZUNIGA, MYRA F
7701	BRENTWOOD MUSLIM COMMUNITY CENTER
	BRODERICK, TIMOTHY S
7721	VELEZ, JOSE S
7731	ARELLANO, MARTIN
7765	OCCUPANT UNKNOWN,
7774	OCCUPANT UNKNOWN,
7801	STANCHINA, JUSTIN M
7840	DANNENBERG, HENRY J
7920	MCGOVERAN, MARK E
7950	GUINN, SHAWN
7960	OCCUPANT UNKNOWN,
8011	OCCUPANT UNKNOWN,
8020	OCCUPANT UNKNOWN,
8091	JONES, RUBY L
8131	HALFORD, STANLEY T
8145	MACHA, NICANOR
8153	CARDENAS, MARCELA
	GARCIA, MARIA
	GROSSE, LELAND J
	LOPEZ, ABRAHAM
	MARTINEZ, MARIO G
8193	TOMPKINS, VAL H
8215	BERNAL, ARMANDO B

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

OHARA AVE 2014

2714	VALLE, JESUS
2716	MENDOZA, ARNULFO
2752	RADER, JIM E
2850	PASSEY, ABE K
	RODRIGUEZ, MARIA S
2882	SKEKATKAR, RAHUL
	SMART START PRESCHOOL
2960	LEYVA, MAGEN
3025	GREEN, CLAUDIA R
3215	LAGUSIS, SAM N
3300	DRUMMOND, GEORGE R
3325	DOMINGUEZ, HAROLD D
4501	BUMPER 2 BUMPER AUTOMOTIVE
	BUNNELLS CABINETS
	CMS GARAGE DOOR INC
	CROSSFIT BRENTWOOD
	SERVPRO
	SUGIMOTO DENTAL LABORATORY
	WORD OF LIFE
4505	BRENTWOOD BOARDING & GROOMING
4510	FRESENIUS MEDICAL SERV OF BRENTWOOD
	KRAEBER LAW OFFICE
	PERFECT SMILES FAMILY DENTISTRY
4515	CASEYS AUTO BODY
4519	BRENTWOOD VETERINARY HOSPITAL INC
4525	BRENTWOOD CAR AUDIO
	HERTZ
4535	MIKES AUTO BODY

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

LONE TREE WAY 2010

6900	ACORN SELF STORAGE
	WATERS, JACKIE
6935	LITTLE CAESARS PIZZA
	TRI CITY AUTO PLAZA INC
	VIZ CLEANERS
6945	BRENTWOOD AUTO SPA
	FARMERS INSURANCE GROUP
7021	UGENIS AT VALLYE OAK NURSERY
	VALLEY OAK NURSERY INC
7357	HINOJOS, ROSEMARY G
7451	SPINELLI, GUST
7510	FRIZZELL, DAVID B
7540	ONTIVEROS, JOHN
7560	TURCOTTE, DANIEL A
7590	NICOLETTI, CATERINA
7600	OCCUPANT UNKNOWN,
7650	OCCUPANT UNKNOWN,
7701	BRODERICK, TIMOTHY S
7721	CLEOFAS, VELEZ J
7731	ARELLANO, MARTIN
7765	LAST, JEAN D
7770	DELTA SQUARE
7774	ACOSTA, EULOGIO
7786	ROBINSON, SUSANNE
7801	OCCUPANT UNKNOWN,
7840	DANNENBERG, HENRY J
7920	MCGOVERAN, MARK E
7950	HERRON, RONALD A
7960	OCCUPANT UNKNOWN,
8011	GARCIA, SYD E
8091	JONES, CHARLIE R
8131	HALFORD, STANLEY T
8145	MACHA, JHONNY
8153	HERAZ, HUMBERTO P
	LOPEZ, ABRAHAM
8193	TOMPKINS, VAL H
8211	OCCUPANT UNKNOWN,
8215	FIERROS, ELISABETH

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

OHARA AVE 2010

2714	VALLE, JESUS
2716	MENDOZA, SONIA V
2850	PASSEY, JENNALEE
	RODRIGUEZ, MIGUEL A
2882	ZULUETA, JOHNNY C
2960	ABRUZZO, MARGARITA
	CISNEROS, JESUS Z
	LEYVA, MAGEN
3025	GREEN, CLAUDIA R
3215	LAGUSIS, SAM N
3225	LUU, NGOC
3300	GRAMMER, LON T
3325	DOMINGUEZ, HAROLD D
4501	BUNNELLS CABINETS & CONSTR CO
	CALIFORNIA XTREME CYCLE
	CMS GARAGE DOOR INC
	CREEKSIDE CHRISTIAN CHURCH
	JOHNSON HEATING & AIR COND
	SERVPRO OF CONCORD
	SUGIMOTO DENTAL LAB
4505	OCCUPANT UNKNOWN,
	TOSHS SCHOOLRL EST APPRAISAL
4510	BAUMGARTL WILLIAM MD
	DESARROLLO FAMILIAR INC
	DIABLO NEPHROLOGY
	FRESENIUS MEDICAL SVCBRNTWD
	PERFECT SMILES FAMILY DNTSTRY
4515	CASEYS AUTO BODY
4519	BRENTWOOD VETERINARY HOSPITAL
4525	POTTERY CORRAL
4535	MIKES AUTO BODY

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

LONE TREE WAY 2005

6820	BRIGHT IDEAS DESIGN CENTER
	KILCREASE, DENISE
6860	OCCUPANT UNKNOWN,
7021	VALLEY OAK NURSERY INC
7101	OCCUPANT UNKNOWN,
7151	CAMACHO, DANNY T
7161	OCCUPANT UNKNOWN,
7450	VILLARREAL, ROBERT D
7451	SPINELLI, GUSTAVO
7460	JOHNS, WAYNE A
	SERNA, RUDOLPH M
7510	FRIZZELL, DAVID B
7560	TURCOTTE, DANIEL A
7570	DAN T EXCAVATING
	KERN, MICHELE J
7590	NICOLETTI, CATERINA
7600	OCCUPANT UNKNOWN,
7650	SANCHEZ, THOMAS
7700	FUJII, TAKUMA
7701	BRODERICK, CECILIA J
7721	JV MAINTENANCE GARDEN
	VELEZ, JOSE S
7731	ONOFRE, ROBERTO
7765	LAST, JEAN D
7770	DELTA SQUARE
7774	REGALADO, GUADALUPE
7801	MCGUIRE, RAYMOND R
7831	PREWETT, EDWARD A
7840	DANNENBERG, HENRY J
7920	MCGOVERAN, JERRY L
7950	BOOKS BY BRISTER
	BRISTER, ROYCE R
	THERAPEUTIC INTERVENTIONS
7951	LAMPORT, GEORGE J
	PITTSBURG HOSE AND RUBBER
7960	GUZMAN, CARLOS J
8011	GARCIA, SYD E
8091	JONES, CHARLIE R
8120	ORDONIO, TEOFILO
8131	OCCUPANT UNKNOWN,
8145	MACHA, NICANOR
8153	GROSSE, LELAND J
8173	TOMPKINS, VAL H
8193	RETANO, CONSUELO
8211	SALGADO, YANIRA

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

OHARA AVE 2005

2711	SOSINE, ROBERT H
2714	OCCUPANT UNKNOWN,
2716	VALLE, JESUS
2752	OCCUPANT UNKNOWN,
2755	SAUNDERS, JAMES P
2801	BLUMEN RANCH
	BLUMEN, BETTY J
2850	ACCURATE STAIRS
	MCKIBBEN, MEGGIN
	MILLER, LAURA J
	PASSEY, ABE K
	RODRIGUEZ, MIGUEL A
	WITTE, RAYMOND S
2882	PETERS, NORMA
2903	OCCUPANT UNKNOWN,
2925	MARTINEZ, HECTOR D
2940	BALLESTEROS, JOSE M
2960	HAMBURG, RHONDA
3025	RIPPEE, WALTER L
3215	LAGUSIS, SAM N
3225	HOYLE, MURRAY D
3300	DRUMMOND, GEORGE R
3325	DOMINGUEZ, HAROLD D
3455	NAJERA, ROBERT J
4501	AUTO MAGIC OF THE EAST BAY
	CALIFORNIA EXTREME CYCLE
	CONTRA COSTA CONCRETE
	NOR CAL SHAOLIN KENPO KARATE
	RESURRECTION MINISTRIES LCMS
	RIVERS EDGE
	RIVERS EDGE COVENANT CHURCH
	SUGIMOTO DENTAL LAB
4505	TOSHS ACADEMY OF SHORINRYU
4510	ECOLAB PEST ELIMINATION
	FRESENIUS MEDICAL SERVICES OF BRENTW
	SAID, BASSEM
4515	CASEYS AUTO BODY INC
4519	ASSOCIATED VETERINARY PRACTICES
4525	PARTY 4 YOU
4535	ARROWHEAD 24 HOUR TOWING & RECOVERY
	BRENTWOOD AUTO BODY
	THE HERTZ CORP

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

LONE TREE WAY 2000

6901	LIMA, JOE
6910	LOPEZ, TONY
6921	SMITH, AMELIA L
7020	OCCUPANT UNKNOWN,
7021	VALLEY OAK NURSERY INCORPORATED
7101	PEREZ, MATTIE L
7131	OCCUPANT UNKNOWN,
7151	OCCUPANT UNKNOWN,
7170	SHIROYAMA, Y J
7281	OCCUPANT UNKNOWN,
7357	SPINELLI TRUCKING
7450	OCCUPANT UNKNOWN,
7451	SPINELLI, GUSTAVO
7560	REGAN, TIMOTHY
7570	D T E
	OCCUPANT UNKNOWN,
7590	NICOLETTI, C
7600	OCCUPANT UNKNOWN,
7650	SANCHEZ, MICHAEL
7701	BRODERICK, CECELIA J
7721	OCCUPANT UNKNOWN,
7731	OCCUPANT UNKNOWN,
7765	LAST, CHARLES B
	VONFORSTMEYER, M R
7770	OCCUPANT UNKNOWN,
7774	FLORES, REBECA
7801	OCCUPANT UNKNOWN,
7831	OCCUPANT UNKNOWN,
7840	DANNENBERG, HENRY J
7901	ANGELES, MARTIN
7920	NICHOLAS, CRAIG A
7950	BRISTER, ROYCE
7951	LAMPORT, GEORGE J
7960	OCCUPANT UNKNOWN,
8001	SHAVER, JERRY
8011	GARCIA, SYDNEY E
8020	OCCUPANT UNKNOWN,
8031	OCCUPANT UNKNOWN,
8091	JONES, CHARLIE R
8120	BERNAL, ARMANDO
	BROWNLEE, ALEX
	DEFREMERY, JAMES
	DORNSELD, JOANNE
8131	HALFORD, NAOMA A
8145	OCCUPANT UNKNOWN,
8193	HERNANDEZ, ARACELI
	MEZA, MANUEL
8215	BERNAL, ARMANDO

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

OHARA AVE 2000

3300	GRAMMER, PHYLLIS
4501	ALL-PRO GLASS
	BRENTWOOD AUTO GLASS INCORPORATED
	LUTHERAN CHURCH MISSOURI SYNOD FOUNDATION
	RESURRECTION MINISTRIES LCMS
4505	BOOKBUSTERS BOOKKEEPING SERVICE
	CFS FINANCIAL SERVICES
	STS FINANCIAL SERVICES
	THRIFTY CAR RENTAL
	U-HAUL COMPANY
4515	CASEYS AUTO BODY
4519	BRENTWOOD VETERINARY HOSPITAL
	LICHLYTER SCOTT DVM VETNRIAN
	SCHNITTKER DUANE DVM
4535	BRENTWOOD AUTO BODY

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

LONE TREE WAY 1995

6651	LA PALOMA HIGH SCHOOL
7021	VALLEY OAK NURSERY INC
7570	DAN TURCOTTE TRUCKING
7772	ASAHI NURSERY
8251	R BROTHERS CONCRETE

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

OHARA AVE 1995

3325	DOMINGUEZ, H D
4501	BUNNELLS CABINETS
	DELTA GYMNASTICS
	EVANGELICAL FREE CHURCH
	METRICKS DAIRY DELIVERY
	SUNRIVER ENGINEERING & CONSTR
4505	HI TECH COMPUTER SYSTEMS
4515	CASEYS AUTO BODY
4519	BRENTWOOD VETERINARY HOSPITAL
	CYNTHIA STADLER DVM
	DUANE SCHNITTKER DVM

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

LONE TREE WAY 1992

6910	LOPEZ, TONY
7731	KELLY, ALLAN F
7831	PREWETT, EDWARD A
7840	DANNENBERG, HENRY J
8120	DEFREMERY, JAMES
8310	KLIENE, ALBERT A

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

OHARA AVE 1992

4501	CUSTOM MADE SPAS
	D&D WATER SPORTS
	EVANGELICAL FREE CH
	HOLMGREN CNSLG CNTR
4505	KEARNS WM JR CONSTR
4510	BRENTWD CITY PLAZA
4519	BRENTWD VETRNRN HSP
	SCHNITTKER, DUANE
	STADLER, CYNTHIA

APPENDIX B

Provided by:
PARCELQUEST

POR N1/2 SEC 1 T1N R2E MDBM

A- 2002 ROLL POR TRACT 8226

1- 6 P.M. 18 11-13-68
2- 27 P.M. 2 3-16-73
3- 47 P.M. 7 7-22-76
4- 37 P.M. 21 4-03-75
5- 198 P.M.30 10-04-06

MB 427-1
(BRENTWOOD PARK)
AMENDED 09-13-02

J-25

1" = 200'

ATHERTON PL
DAHLIA DR
IRIS CT
ASCOT CT
HAWTHORN DR
ALMOND DR
DE-FERMERY DR
OHARA AVENUE
LONE TREE WAY
ANDERSON

TRACT 8402
M.B.434-1
9-7-01
33.49AC

CITY "F" 1.96Ac.
CITY .102Ac
CITY "A" 713Ac

MID SEC. CORNER
W LN OF SEC. 7
CONC. POST
S.LN. 469 D 241
3/4" I.P. S.E.COR.O'BRIEN 595 OR 84
FLOOD CONTROL
60' R/W DED.TO CO.
LONE TREE RR DIST
DRAIN.EASE.
CONTRA COSTA CO. 77-D-330

NOTE: THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE INFORMATION DELINEATED HEREON. ASSESSOR'S PARCELS MAY NOT COMPLY WITH LOCAL LOT SPLIT OR BUILDING SITE ORDINANCES.

FM. 41/25
ASSESSOR'S MAP
BOOK 18 PAGE 6
CONTRA COSTA COUNTY, CALIF.

5/1/07

Re: Public Records Review Request

Inbox ×

ccchazmat
to me

Fri, Mar 5, 5:03 PM

Good Afternoon:

We have no records for 7590, 7600 and 7650 Lone Tree Way, Brentwood.

Be well, stay healthy,

Alex McMullen, Clerical Supervisor

Contra Costa Health Services

Hazardous Materials Programs

4585 Pacheco Blvd., Suite 100
Martinez, CA 94553

(925) 655-3200 Phone
(925) 646-2073 Fax
ccchazmat@cchealth.org

From: Klaudia B.
Sent: Friday, March 5, 2021 3:02 PM
To: ccchazmat <ccchazmat@cchealth.org>
Subject: Public Records Review Request

Hello,

Attached are two requests for public records. Please let me know if you have any files for either site.

Thank you,

Klaudia

--
Klaudia Barberi, PG
AllWest Environmental, Inc.

AllWest Environmental
Environmental Phase I - Due Diligence Questionnaire

Project No. 202142.20

Please return by 3/11/2021 **Sent on:** 3/4/2021

AllWest

General Information

Property Name	7590 Lone Tree Way, Brentwood
Property Owner	Adventus Corporation
All Known Site Addresses	7600 Lone Tree Way, Brentwood, CA
Parcel Size (acres/sq. ft.)	~4.86 acres
Building Size (sq. ft.)	~936 sf
Site Contact	

Parcel Number	018-060-007	Number of Buildings	1 or 2	Construction Date	1966

Report Purpose

Acquisition		Refinance		Disposition	Y	Management	

Land Use of Environmental Concern - On-Site and Adjacent, Past and Present

Indicate, if applicable	ON-SITE	ADJACENT	Notes:
Gasoline Stations			
Dry Cleaners			
Industrial Uses			
Other			

General Information	Yes	No	N/A	Notes
1. Are you aware of any environmental liens filed or recorded against the property under federal, tribal, state or local law?		✓		
2. Are you aware of environmental activity and use limitations (AULs), including engineering and institutional controls limiting exposure to known hazardous substances, that are in place, have been filed and/or recorded against the property?		✓		
3. Do you have any specialized knowledge or experience material in identifying soil or groundwater contamination due to certain processes or chemicals used at the subject or adjoining properties?		✓		
4. Does the purchase price of the property reasonably reflect the fair market value of the property?			✓	
5. Are you aware of a reduction in the property value due to environmental issues?		✓		
6. Are you aware of commonly known information about the property (past uses, specific chemicals used, spills or releases, environmental clean-ups) that would assist AllWest to identify potential soil or groundwater contamination?		✓		
7. Based on your knowledge and experience related to the property are there any obvious indicators that suggest the presence or likely presence of hazardous materials releases at the property?		✓		
8. Do you possess construction drawings, specs., a site plan, an ALTA survey, Chain of Title or Rent Roll?		✓		
9. Have previous environmental investigations been performed at the site? Indicate report type below.		✓		

Investigation Type:	Yes	No	N/A	On-Site Operations	Yes	No	N/A	Available Permits/Records	Yes	No	N/A	Notes
Phase I ESA				Stored Chemicals				Environmental Permits				
Phase II ESA				Underground Storage Tanks				Industrial Storage				
Tank Tightness Testing				Above Ground Storage Tanks				POTW (NPDES)				
Asbestos Survey				Spills and/or Releases				Hazardous Waste Generator				
Radon				Dump Areas/Landfills				Air Quality				
Lead Based Paint				Water Treatment Systems				Flammable Materials				
Lead in Water				Clarifies/Separators				Waste Manifest(s)				
O&M Plan(s)				Air Stacks/Vents/Odors				Other				
Mold				Floor Drains/Sumps				Wall or window leaks				
Other:				Stained Soil/Impacted Vegetation				Roof leaks				
				On-Site Owned Elec. Transformer				Recent roof repairs				
				Hydraulic Lifts/ Elevators				Signs of mold				
				Wetlands/Flooding								
Please provide copies of the above, if available.				Environmental Clean-ups								
				Oil/Gas/Water Monitoring Wells								

Provide a description of issues checked in the above table and note any issues to elaborate on or issues you are concerned about:

Please return this document by email to: klaudiabarberi@gmail.com

Prepared By: Gabriel Roldan Date: 3/16/2021 Contact #: 404-548-636

Company: Transwestern Email: gabriel.roldan@transwestern.com

AllWest Environmental
Environmental Phase I - Due Diligence Questionnaire

Project No. 202142.20

Please return by 3/11/2021 **Sent on:** 3/4/2021

AllWest

General Information

Property Name	7650 Lone Tree Way, Brentwood
Property Owner	Adventus Corporation
All Known Site Addresses	
Parcel Size (acres/sq. ft.)	~11.5 acres
Building Size (sq. ft.)	
Site Contact	

Parcel Number	018-060-006	Number of Buildings		Construction Date	

Report Purpose

Acquisition		Refinance		Disposition	Y	Management	

Land Use of Environmental Concern - On-Site and Adjacent, Past and Present

Indicate, if applicable	ON-SITE	ADJACENT	Notes:
Gasoline Stations			
Dry Cleaners			
Industrial Uses			
Other			

General Information	Yes	No	N/A	Notes
1. Are you aware of any environmental liens filed or recorded against the property under federal, tribal, state or local law?		✓		
2. Are you aware of environmental activity and use limitations (AULs), including engineering and institutional controls limiting exposure to known hazardous substances, that are in place, have been filed and/or recorded against the property?		✓		
3. Do you have any specialized knowledge or experience material in identifying soil or groundwater contamination due to certain processes or chemicals used at the subject or adjoining properties?		✓		
4. Does the purchase price of the property reasonably reflect the fair market value of the property?			✓	
5. Are you aware of a reduction in the property value due to environmental issues?		✓		
6. Are you aware of commonly known information about the property (past uses, specific chemicals used, spills or releases, environmental clean-ups) that would assist AllWest to identify potential soil or groundwater contamination?		✓		
7. Based on your knowledge and experience related to the property are there any obvious indicators that suggest the presence or likely presence of hazardous materials releases at the property?		✓		
8. Do you possess construction drawings, specs., a site plan, an ALTA survey, Chain of Title or Rent Roll?		✓		
9. Have previous environmental investigations been performed at the site? Indicate report type below.		✓		

Investigation Type:	Yes	No	N/A	On-Site Operations	Yes	No	N/A	Available Permits/Records	Yes	No	N/A	Notes
Phase I ESA				Stored Chemicals				Environmental Permits				
Phase II ESA				Underground Storage Tanks				Industrial Storage				
Tank Tightness Testing				Above Ground Storage Tanks				POTW (NPDES)				
Asbestos Survey				Spills and/or Releases				Hazardous Waste Generator				
Radon				Dump Areas/Landfills				Air Quality				
Lead Based Paint				Water Treatment Systems				Flammable Materials				
Lead in Water				Clarifies/Separators				Waste Manifest(s)				
O&M Plan(s)				Air Stacks/Vents/Odors				Other				
Mold				Floor Drains/Sumps				Wall or window leaks				
Other:				Stained Soil/Impacted Vegetation				Roof leaks				
				On-Site Owned Elec. Transformer				Recent roof repairs				
				Hydraulic Lifts/ Elevators				Signs of mold				
				Wetlands/Flooding								
Please provide copies of the above, if available.				Environmental Clean-ups								
				Oil/Gas/Water Monitoring Wells								

Provide a description of issues checked in the above table and note any issues to elaborate on or issues you are concerned about:

Please return this document by email to: klaudiabarberi@gmail.com

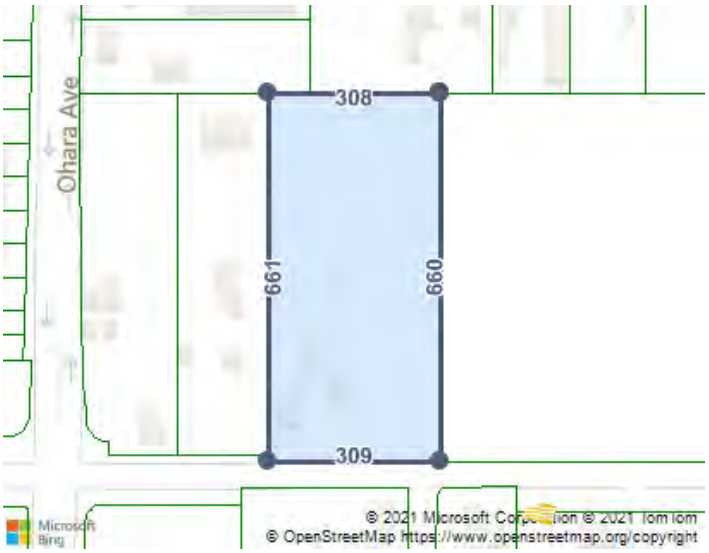
Prepared By: Gabriel Roldan Date: 3/16/2021 Contact #: 404-548-636

Company: Transwestern Email: gabriel.roldan@transwestern.com

MLS Tax Suite™
Powered by CRS Data

Tuesday, March 23, 2021

No Images Available



LOCATION

Property Address	7600 Lone Tree Way Brentwood, CA 94513-2104
Subdivision	
Carrier Route	R002
County	Contra Costa County, CA

GENERAL PARCEL INFORMATION

APN/Tax ID	018-060-007
Alt. APN	
Account Number	
Tax Area	10-088
2010 Census Trct/Blk	3031.02/1
Assessor Roll Year	2020

PROPERTY SUMMARY

Property Type	Residential
Land Use	Single Family Residential
Improvement Type	Single Family Residential
Square Feet	931
# of Buildings	1

CURRENT OWNER

Name	Adventus Corporation
Mailing Address	2121 Harrison St Oakland, CA 94612-3780
Owner Occupied	No

SCHOOL ZONE INFORMATION

Marsh Creek Elementary School	0.7 mi
Elementary: K to 5	Distance
Bristow Middle School	1.7 mi
Middle: 6 to 8	Distance
Liberty High School	2.1 mi
High: 9 to 12	Distance

SALES HISTORY THROUGH 03/11/2021

Date	Date Recorded	Amount	Buyer/Owners	Seller	Instrument	No. Parcels	Book/Page Or Document#
1/14/2014	1/22/2014	**$1,210,000**	Adventus Corporation	Nicoletti Caterina & Nicoletti Trust	Grant Deed		2014-010992
6/18/1997	9/22/1997		Nicoletti Caterina & Nicoletti Trust	Nicoletti Caterina	Intrafamily Transfer & Dissolution		97-175247

TAX ASSESSMENT

Tax Assessment	2020	Change (%)	2019	Change (%)	2018

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Information Deemed Reliable But Not Guaranteed.

Assessed Land	$1,294,631.00	$25,384.00 (2.0%)	$1,269,247.00	$24,887.00 (2.0%)	$1,244,360.00
Assessed Improvements	$61,646.00	$1,208.00 (2.0%)	$60,438.00	$1,185.00 (2.0%)	$59,253.00
Total Assessment	$1,356,277.00	$26,592.00 (2.0%)	$1,329,685.00	$26,072.00 (2.0%)	$1,303,613.00
Exempt Reason					
% Improved	5%				

TAXES

Tax Year	City Taxes	County Taxes	Total Taxes
2020			$15,427.42
2019			$15,512.04
2018			$14,727.88
2017			$14,755.20
2016			$14,265.12
2015			$13,871.22
2014			$1,000.04
2013			$1,000.24

MORTGAGE HISTORY

No mortgages were found for this parcel.

FORECLOSURE HISTORY

No foreclosures were found for this parcel.

PROPERTY CHARACTERISTICS: BUILDING

Building # 1

Type	Single Family Residential	**Condition**		**Units**	
Year Built	1966	**Effective Year**		**Stories**	1
BRs	2	**Baths**	1	**Rooms**	5
Total Sq. Ft.	931				

Building Square Feet (Living Space)	**Building Square Feet** (Other)
1st Floor 931	Garage 240

- CONSTRUCTION

Quality	**Roof Framing**
Shape	**Roof Cover Deck**
Partitions	**Cabinet Millwork**
Common Wall	**Floor Finish**
Foundation	**Interior Finish**
Floor System	**Air Conditioning**
Exterior Wall	**Heat Type**
Structural Framing	**Bathroom Tile**
Fireplace	**Plumbing Fixtures**

- OTHER

Occupancy	**Building Data Source**

PROPERTY CHARACTERISTICS: EXTRA FEATURES

Feature	Size or Description	Year Built	Condition
Garage	1 CAR		

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Information Deemed Reliable But Not Guaranteed.

PROPERTY CHARACTERISTICS: LOT

Land Use	Single Family Residential	**Lot Dimensions**	
Block/Lot		**Lot Square Feet**	203,861
Latitude/Longitude	37.962527°/-121.712139°	**Acreage**	4.68

PROPERTY CHARACTERISTICS: UTILITIES/AREA

Gas Source		**Road Type**	
Electric Source		**Topography**	
Water Source		**District Trend**	
Sewer Source		**Special School District 1**	3
Zoning Code		**Special School District 2**	9
Owner Type			

LEGAL DESCRIPTION

Subdivision		**Plat Book/Page**	
Block/Lot		**Tax Area**	10-088
Description	Por Sec 1 T1n R2e Ex 1/2 Mr 4.68 Ac		

FEMA FLOOD ZONES

Zone Code	Flood Risk	BFE	Description	FIRM Panel ID	FIRM Panel Eff. Date
X	Minimal		Area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level.	06013C0354G	03/21/2017

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Information Deemed Reliable But Not Guaranteed.

7590, 7600 7650 Lone Tree Way

Permit No.	Status	Description	Site Address	Owner Name	Issued
7590 Lone Tree Way					
B16-1095	Finaled	Sewer Connection Only	7590 Lone Tree Way	Adventus Corporation	5/13/16
7600 Lone Tree Way					
B0010618	Finaled	Electrical Insepction (PG&E Removed)	7600 Lone Tree Way	Nicoletti	8/23/02
B16-0968	Finaled	Sewer Connection Only	7600 Lone Tree Way	Adventus Corporation	5/13/16
7650 Lone Tree Way - No permits on file					

APPENDIX C

Phase I
Environmental Site Assessment

Three Agricultural Parcels
7560 to 7650 Lone Tree Way
Brentwood, California

July 15, 2013
Project Number 33113-013112.00

Prepared for
Diocese of Oakland
Oakland, California

BUREAU VERITAS

For the benefit of business and people

Bureau Veritas North America, Inc.
2430 Camino Ramon, Suite 122
San Ramon, California 94583
925.426.2600
www.us.bureauveritas.com

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EXECUTIVE SUMMARY

Mr. James McCann of the Diocese of Oakland retained Bureau Veritas North America, Inc. (BVNA) to conduct a Phase I Environmental Site Assessment (ESA) in conjunction with a prospective transaction of three adjoining parcels of land located at 7560, 7590, and 7650 Lone Tree Way in Brentwood, Contra Costa County, California (subject property). The following additional addresses were identified during the ESA and were also researched: 7570 and 7600 Lone Tree Way.

Bureau Veritas conducted this ESA in conformance with ASTM Designation: E 1527-05 *Standard Practice for ESAs: Phase I ESA Process.* The scope of work and the terms and conditions are described in our May 29, 2013 Proposal No. 3303-13-271. Exceptions and limitations encountered during this ESA are identified in the report.

The approximately 18.94 acre subject property is developed with several buildings and fallow agricultural land. The west parcel (7560 and 7570 Lone Tree Way) is developed with two residences and two garage/shop structures. The center parcel (7590 and 7600 Lone Tree Way) is developed with two vacant residences, a barn/shop structure, abandoned animal pen and tilled land. The east parcel (7650 Lone Tree Way) is developed with one residence, a detached garage/shop, a storage building, a metal shed, and a house trailer with the remaining being open tilled land. The two residences on the central parcel are vacant and in poor condition. During this ESA, the 7560 and 7570 (west) and the 7650 (east) residences and four detached garage/barn/storage structures on both parcels were inaccessible. BVNA understands that the subject property may be redeveloped with a church and school.

BVNA identified obvious subject property uses from the present back to 1939, at which time the subject property was developed for agriculture, primarily orchards with apparently one residence per parcel. Tax records indicate that the west and center parcels were developed with one residential structure on each parcel as early as 1919 to 1920. A second residence (7600) was built on the center parcel in about 1966. The 7570 residence (west parcel) was built in about 1980 and appears to have been well maintained. The subject property use was essentially the same until about 1993, by which time the orchard trees had been removed and the three parcels were developed in their general current configuration. Between about 1980 and 2010, the west parcel was used by the Turcotte construction and excavation company for storage and maintenance of trucks and equipment. The shop may have also been used as a residence. The central parcel barn/shop appears to have been used for farm supplies and equipment maintenance. The east parcel shop/garage structure also appears to have been used for farm supplies and equipment maintenance. Four domestic water supply wells were observed on the subject property; the well on the east parcel is abandoned and remains as an open hole.

This ESA has revealed the following recognized environmental conditions (RECs) and environmental concerns in connection with the subject property, as follows:

- Five detached shop/garage/storage structures are present on the subject property and apparently were used for farm operations and the maintenance of equipment and vehicles. Two structures on the west lot appear to have been used by the property owner to maintain trucks and equipment to support his excavation and construction business from about 1980 through about 2010. This use likely included the storage of hazardous materials and petroleum products, and

the generation of regulated wastes. Historical use of the subject property for vehicle maintenance is a REC.

- County enforcement of illegal use of a building as a dwelling may indicate that an additional septic system exists for the shop building on the west parcel. The possibility of a septic system at the shop is a REC.
- The subject property was developed for orchard use by 1939 and through about 1993. The likely use of agricultural chemicals commonly associated with orchards over numerous decades is a REC.
- The subject property has four domestic wells, one of which is abandoned but remains open. Wells that are not in use are potential paths for contaminants to reach groundwater. This is a potential environmental concern.

BVNA recommends a subsurface investigation of soil, groundwater and soil vapor on the subject property to assess the potential for maintenance activities and historical agricultural uses to have impacted the subject property.

1.0 INTRODUCTION

Mr. James McCann of the Diocese of Oakland retained Bureau Veritas North America, Inc. (BVNA) to conduct a Phase I Environmental Site Assessment (ESA) in conjunction with a prospective transaction of three adjoining parcels of land located at 7560, 7590, and 7650 Lone Tree Way in Brentwood, Contra Costa County, California (subject property). The following additional addresses were identified during the ESA and were also researched: 7570 and 7600 Lone Tree Way. Figure 1 shows the approximate subject property location.

1.1 PURPOSE

One purpose of this ESA is to permit a user to satisfy one of the requirements to qualify for landowner liability protections (under CERCLA). This ESA may also help a user better understand business environmental risks. Towards these ends and consistent with good commercial and customary practice, this ESA is designed to identify recognized environmental conditions (RECs) as well as *de minimis* conditions in connection with the subject property by performing all appropriate inquiry into subject property ownership and use as well as into uses of adjoining properties and surrounding areas within approximate minimum search distances from the subject property.

1.2 METHODOLOGY

BVNA conducted this ESA in conformance with ASTM Designation: E 1527-05 *Standard Practice for ESAs: Phase I ESA Process*. The scope of work and the terms and conditions are described in our May 29, 2013 Proposal No. 3303-13-271. Qualified personnel working as environmental professionals conducted this ESA (Appendix A). This ESA includes the following parts: reconnaissance, interviews, records review, and evaluation.

1.3 LIMITATIONS

BVNA obtained information for this ESA from various sources (Appendix B), and to the extent it was relied on to form our opinion, this information is assumed to be correct and complete. BVNA is not responsible for the quality or content of information from these sources. BVNA encountered the following data gaps or limitations:

- Interior spaces of the structures on the west and east parcels were not accessible. This is a significant data gap since this includes the small garage and the shop structures on the west parcel and the two storage/ garage structures on the east parcel. There are indications that some or all of these structures were used for vehicle maintenance and possible agricultural purposes, which likely included the use and storage of petroleum products, pesticides and fertilizers.
- Minimal records were available for the subject property documenting use since first development. Tax records for the three parcels indicate that residential structures were built on the west and center parcels begining in 1919 and 1920. The City of Brentwood was not incorporated until 1997 and does not have records for the subject property. County health department records are very limited, with the earliest record dating to 1977. No records were found pertaining to development of most of the

structures or for the four domestic wells observed on the property. Per ASTM, historical property uses "shall be identified from the present, back to the subject property's obvious first developed use [including agricultural and fill activities], or back to 1940, whichever is earlier." Therefore, this is a significant data gap.

The information and opinions rendered in this report are exclusively for use by the Diocese of Oakland. BVNA will not distribute or publish this report without consent except as required by law or court order. The information and opinions expressed in this report are given in response to a limited assignment and should be considered and implemented only in light of that assignment. The services provided by BVNA in completing this project were consistent with normal standards of the profession. No other warranty, expressed or implied, is made.

2.0 RECONNAISSANCE

On May 31, 2013, Donald Ashton of BVNA, performed visual reconnaissance of the subject property, adjoining properties, and surrounding areas to ascertain current and historic uses. Mr. Frank Nicoletti, the property owner/representative for the center and east parcels, provided access and accompanied Mr. Ashton during the reconnaissance portion of this assessment, except for the 7650 residence which was occupied. In attendance was Mr. Emil J. Geddes of Ridge Water Real Estate Services, who represented the owner of the west parcel, Mr. Dan Turcotte, and provided access to the west parcel; however, access was not provided to any of the structures on this parcel. The subject property was systematically traversed on foot; adjoining properties were observed from the subject property and from public thoroughfares. Photographs are appended. Figure 2 depicts a site plan.

2.1 SUBJECT PROPERTY USE

The approximately 18.94 acre subject property consists of three parcels that are developed with residences, garages and shops, and also include fallow agricultural land. For ease of discussion, the subject property will be described as the west parcel, center parcel, and east parcel. The center and east parcels consist mostly of tilled land, approximately 85 percent of the two parcels, with a perimeter fence but no fence between the parcels. Details pertaining to each parcel are as follows:

Address	Acres	Developments
West Parcel 7560 & 7570 Lone Tree Way	2.59	Two occupied residences, a detached garage, a shop building (possible former residence due to high windows and agency records of illegal use in 1996) with attached shed, and open areas of cut grasses and sparse trees. The lot has a perimeter fence
Center Parcel 7590 & 7600 Lone Tree Way	4.84	Two vacant residences, a barn/shop structure, abandoned animal pens, county irrigation water piping along the eastern and northern perimeter, and tilled land

Address	Acres	Developments
East Parcel 7650 Lone Tree Way	11.51	One occupied residence, a garage, a storage building (possible former residence), a house trailer, a metal storage shed, and tilled land

2.1.1 Hazardous Substances and Petroleum Products

BVNA inspected the subject property for indications of the use, storage, or disposal of hazardous substances and petroleum products (e.g., manufacturing activities, drums, containers, stressed vegetation, stains, sheen, and heating/cooling systems). BVNA observed no such indications except the following:

West Parcel

The interior of the small detached garage was viewed through vent spaces on the west side of the garage. The garage was mostly empty and had a concrete floor. A shop workbench was observed along with numerous paint cans stacked on the floor of one-gallon or less in size. Some minor quantities of vehicle maintenance supplies were also noted. On the north side of the garage were a couple of old 5-gallon buckets with unknown contents. The soil around the buckets appeared to be stained with an oily substance, an area of about 10 square feet.

The central shop building with attached shed had indications of vehicle maintenance activities. The shop was not accessible or viewable. The shed contained a tractor and a vehicle, several waste containers, apparently used for waste oils, a cut open small drum labeled carburetor cleaner, and small areas of oil stained ground. Next to the shed was an unmarked, oil stained drum that apparently was being used to store waste oil. The shop had an air compressor located at the exterior southwest corner of the building.

Center Parcel

The barn/shop building had several empty plastic gas cans, several small motor oil and coolant containers, small labeled garden pesticide and fertilizer containers, two empty steel drums, one empty plastic drum, a bucket of asphaltic mastic, and various small containers of maintenance supplies that could not be identified.

East Parcel

The garage was not accessible; however, items observed through windows included various home and vehicle maintenance supplies such as paint cans, gas cans, oil containers, stop leak radiator compound, various other maintenance supplies that could not be identified and a motorcycle. A small open storage bin next to the garage contained two bags of insect killer (about 10-20 pounds each), and three one-gallon containers of insecticides. A steel 35 gallon drum was observed outside the garage door that appeared empty. A 1.5 story wood storage building west of the garage was not accessible; interior areas observable through a window appeared to be in use for the storage of personal belongings. A small metal storage building behind the garage also contained personal belongs.

2.1.2 Underground Storage Tanks (USTs)

BVNA inspected the subject property for indications of USTs (e.g., vent piping, dispensing equipment, pavement variations, and fill ports). BVNA observed no such indications.

2.1.3 Aboveground Storage Tanks (ASTs)

BVNA inspected the subject property for indications of ASTs (e.g., pavement bolts, containers, reservoirs, and generators). BVNA observed no such indications. Mr. Nicoletti stated that a circular metal object, about six feet in diameter, located in the field north of the 7650 residence was a former walnut drier.

2.1.4 Liquid Waste

BVNA inspected the subject property for indications of liquid waste discharge sources (e.g., sumps, drains, clarifiers, pools of liquid, pits, ponds, lagoons, septic systems, wastewater, and storm water). BVNA observed no such indications, except the following:

West Parcel

- Mr. Geddes, realtor for Mr. Turcotte, stated that a septic tank and leach field was located on the west side of the residence. Mr. Geddes had no information regarding domestic liquid waste disposal for the 7560 residence or the shop building.

Center Parcel

- Mr. Nicoletti stated that the 7590 residence septic tank is located at the rear (north side) of the building under a concrete slab. The septic tank for the 7600 residence was located about 10 feet north of the building; a depression of a few feet observed at that location was partially covered by weeds, a tree and a fence, indicating an apparent collapsed septic tank.

East Parcel

- Mr. Nicoletti stated that a septic tank and leach field are located about 15 feet northwest of the 7650 residence in the plowed field on the west side of the field fence marked by a pole. No septic system was observed; however external plumbing on the north side of the residence is consistent with the location of such a system.

No other liquid waste systems were observed at the subject property.

2.1.5 Solid Waste

BVNA inspected the subject property for indications of solid waste disposal (e.g., mounding, depressions, fill material, bins, debris, and active human use). BVNA observed no such indications, except as follows:

West Parcel

- A vehicle and metal equipment junk pile obscured by weeds was observed on the north side of the shed in the central area of the lot. Considerable debris and used household materials were located under a large patio overhang at the 7560 residence. BVNA did not access this residence or closely inspect the materials stored in this area; however, no environmental concerns were

noted from the driveway area. Several sections of reinforced concrete pipe and some assorted pieces of formed concrete were noted in the southern portion of the lot.

Center Parcel

- Two piles of cut tree sections were located east and southeast of the shop/barn.

East Parcel

- No notable debris or solid wastes piles were noted on this parcel.

2.1.6 Polychlorinated Biphenyls (PCBs)

BVNA inspected the subject property for indications of PCBs (e.g., transformers, capacitors, elevators, and lifts). BVNA observed no such indications. Several pole-mounted transformers were observed on PG&E power poles that run along the south property boundary parallel to Lone Tree Way. The transformers and capacitors appeared to be in good condition and are not expected to be PCB containing based on general information provided by PG&E regarding their equipment in the public domain. PG&E is the owner and responsible party for the observed equipment.

2.1.7 Wells

BVNA inspected the subject property for indications of supply, irrigation, monitor, injection, dry, abandoned, or other wells (e.g., protruding pipes, cover plates, pumps, small sheds, large water storage containers, and mounded grout). BVNA observed no such indications, except following:

West Parcel

- An active small domestic well and pressure reservoir tank were observed in front of the 7560 residence. A small active domestic well and pressure reservoir tank were also observed within a vine covered enclosure in the backyard of the 7570 residence.

Center Parcel

- A small active domestic well and pressure reservoir tank were observed inside the barn on the southern portion of the parcel. Mr. Nicoletti stated that this well also provides water to the 7650 residence on the east parcel.

East Parcel

- An abandoned domestic well was observed on the east side of the 7650 residence as an open hole about six inches in diameter. A water pressure reservoir tank was located next to the abandoned well.

2.2 ADJOINING PROPERTY AND SURROUNDING AREA USE

Adjoining property and surrounding area uses are primarily commercial and residential. These uses include the following:

- North: Six residential/agricultural lots border the subject property, accessed by Bonnie Lane farther to the north. These lots have indications of former and current agricultural use. The property to the northwest has two structures that appear to be two active hot houses. One, possibly two properties north of the center and east parcels have indications of use by contractors based on observed equipment storage, tractors, and various stockpiles of goods. These lots appeared to be well maintained and no significant use of regulated materials was visible.
- East: The adjacent lot has a residence and a separate garage-barn structure with open space that appears to have been in prior agriculture use.
- South: Lone Tree Way borders the subject property followed by up to seven lots of various residential-agricultural use. A lot south of the 7600 residence is being used to store some equipment, trucks, and trailers. Smith Road intersects Lone Tree Way south of the center parcel that accesses a relatively new church and agricultural fields farther to the south.
- West: A residential lot with possibly four residences and some garage structures. The lot appears to be in use by a construction contractor for storage of vehicles and work trailers. The north portion of the lot is tilled ground with a small domestic well and possibly used as a corral. The lot appeared to be well maintained. Farther west is O'Hara Avenue and a residential subdivision beyond.

3.0 USER PROVIDED INFORMATION

ASTM E 1527 defines "user" as the party seeking to use Practice E 1527 to complete an environmental site assessment of the subject property, and in this case, the user is the Diocese of Oakland. Mr. James McCann is unaware of any environmental liens, AULs, or any other environmental issues associated with the subject property. The user questionnaire is attached as Appendix C.

4.0 INTERVIEWS

Donald Ashton with BVNA conducted or attempted to conduct interviews at various times in May, June, and July 2013. Unless otherwise noted, interviewed persons were generally forthcoming.

4.1 CURRENT OWNER, OPERATORS, OCCUPANTS

On May 31, 2013, BVNA interviewed Mr. Frank Nicoletti, the owner and owner's representative for the center and east parcels. Mr. Nicoletti stated that he purchased the parcels in about 1978. According to Mr. Nicoletti, the subject property was originally in use for walnut orchards, which continued until about 20 years ago when he removed the old orchard trees and made a pasture for cows. The county irrigation water system provided water to the subject property up until he purchased the property. He terminated the service upon ownership and the water service has not been used since, although the piping remains. He used the animal pens for pigs and cows for a number of years but terminated that activity about 15 years ago. The 7590 residence was vacated about three year ago and the 7600 residence was vacated

about nine years ago. The domestic water supply well failed at the 7650 residence some years prior and he connected that residence to the well located on the center parcel via a supply pipeline, about 900 feet in length, that runs along the south property boundary fence line. Mr. Nicoletti stated that this well is 110 feet deep and that the depth to groundwater is approximately 50 feet below grade.

Mr. Nicoletti stated that he is not aware of any current or prior subsurface features on the subject property, such as USTs or ASTs, except for domestic septic systems at each residence location and the domestic supply wells. He stated that the garages and shops on the subject property have been used for maintenance of various vehicles and a tractor; however, he has no knowledge of spills, waste disposal, or other environmental concerns associated with the subject property use.

BVNA interviewed Mr. Dan Turcotte (owner of the west parcel) by telephone on July 5, 2013. Mr. Turcotte stated that he purchased the west parcel in 1977 and built the 'back house' and center shop (7570) in 1980. He also operated his excavation and construction business from the property beginning in 1980. He stated that he parked three trucks, some excavation equipment, and stored materials on the site for approximately seven to eight years. He conducted minor vehicle maintenance on the trucks and equipment that included changing vehicle fluids, repairing brakes, and conducting some painting in the shops. Maintenance wastes included waste oils, engine coolant, and other minor quantities of regulated materials. He stated that the quantities were small and generally were stored in one drum. He transported the wastes to a Stockton recycler service for disposal when necessary. He stated that no on-site disposal occurred and he was not aware of any significant spills or releases of regulated materials on the property.

Mr. Turcotte stated that use of the property from the late 1980s through about 2010 included some storage of vehicles and materials, and minor vehicle maintenance was only conducted on site between 1980 and about 1988 to 1990. He recently moved to Florida and retained Ridge Water Real Estate Services to sell the property.

Utilities are provided to the subject property as follows:

- Power: Pacific Gas and Electric (PG&E)
- Natural Gas PG&E
- Sewer On property septic systems
- Water On property domestic wells

4.2 PAST OWNERS, OPERATORS, AND OCCUPANTS

No prior owners of the subject property or occupants of the residences were interviewed as contacts were not provided by the current owners of the subject property.

4.3 NEARBY PROPERTY OWNERS AND OCCUPANTS

The subject property is not abandoned. Therefore, BVNA did not interview nearby property owners and occupants.

4.4 GOVERNMENT OFFICIALS

BVNA interviewed Mr. Tim Neilsen, Assistant Planner for the City of Brentwood. Mr. Neilsen stated that he had been contacted by the Diocese of Oakland, which had provided him with a draft Mitigation of Negative Declaration for a proposed acquisition of the subject property with a proposal to develop the property as a church and school. He stated that the city had no historical files for the subject property due to the age of the developments on the property; the city did not annex the area until October 1997. Mr. Neilsen was not aware of any environmental impacts or concerns to the subject property based on his review of the draft declaration report and his general knowledge of the area. Mr. Nielsen has worked with the city as a planner since the late-1990s

4.5 OTHER INTERVIEWS

No other responsible parties were identified to interview.

5.0 RECORDS REVIEW

BVNA reviewed records pertaining to the subject property. In addition, where practicable, BVNA reviewed records indicating uses at adjoining properties and nearby properties or surrounding areas within approximate minimum search distances from the subject property.

5.1 PHYSICAL SETTING

5.1.1 Physiography

BVNA reviewed the United States Geological Survey (USGS) Brentwood Quadrangle Map. The subject property is located within San Joaquin Valley, east of the Diablo Ranges in Contra Costa County. The subject property topography is relatively flat with a slight easterly slope, within the Central Valley physiographic province where it meets the San Joaquin delta. The delta is about seven miles to the east and the foothills to the Diablo Ranges are about 2.5 miles to the southwest.

5.1.2 Geology

The subject property is located on alluvial fan deposits with their origins from the nearby uplands to the west. Tilled soil observed at the subject property consisted of silts, and silty sand. The Soil Conservation Service has mapped regional soil as the Rincon clay loam, which consists of silt and clay with sands to depths of about five feet (EDR, 2013).

5.1.3 Hydrology

There are domestic wells on the subject property; however, no groundwater investigations have been conducted at or near the subject property. Environmental investigations at some distance but at a similar elevation report the depth to groundwater at or greater than 20 feet bgs. Mr. Frank Nicoletti, the owner of the east parcel stated that the depth to groundwater in the domestic supply well on the center parcel is about 50 feet below grade. The regional groundwater gradient in the area of the subject property is

assumed to flow to the east based on the regional topographic gradient. The nearest drainage channel is Sand Creek, a seasonal tributary, which is located about 1.3 miles to the southwest. Sand Creek joins Marsh Creek to the south and flows to the northeast toward the delta.

5.2 FIRE INSURANCE MAPS

We requested fire insurance maps of the subject property, adjoining properties, and surrounding area from the Environmental Data Resources, Inc. (EDR) collection. According to EDR, such maps are not available.

5.3 AERIAL PHOTOGRAPHS

BVNA reviewed aerial photographs of the subject property, adjoining properties, and surrounding area from the EDR collection. Copies of aerial photographs from 1939 and 2010 are included in Appendix D. Photograph summaries follow:

- **1939; Scale: 1"= 500'**

  The subject property is developed as agricultural land. The west parcel appears to have a barn/garage and a small residence in the southern portion of the lot in the same apparent location as the current 7560 residence and a small detached structure to the west, a garage or barn. The northern portion of the lot is mostly an orchard with some open space. The center parcel is developed with an apparent small residence and a small barn structure near the southern portion of the lot. The remainder of the lot is in agricultural use with some trees and rows of small plants, possibly a vineyard. The east parcel is fully developed as an orchard with a small structure or two with trees, near the location of the current 7650 residence. A rural road exists along the current Lone Tree Way alignment and along the O'Hara Avenue alignment. Adjoining properties are in similar agricultural use as orchards and or open fields with some rural residential and farm related structures.

- **1949; Scale: 1"= 500'**

  The subject property and surrounding area appears essentially unchanged. The west parcel appears to have two rectangular garage or barn like structures to the west and north of the small 7560 residence.

- **1959; Scale: 1"= 500'**

  The subject property and surrounding area appears essentially unchanged. The north adjoining property use has changed as there are apparently five residences along a new road (currently Bonnie Lane) with four long rectangular structures (possible stables or barns) with orchard trees immediately north of the subject property.

- **1966; Scale: 1"= 500'**

  The subject property and surrounding area appear essentially unchanged.

- **1993; Google Earth photo – no scale**

  The subject property and adjoining properties appear developed essentially as they currently exist. The west parcel now has the currently existing central shop/shed building and the north residence (7570) with two circular drive patterns on the lot with various vehicles (some large trucks) and other materials storage throughout the lot. The center parcel is developed essentially as it currently exists with the 7600 residence and the animal pens to the north in the field area. The orchards have been removed and the open field area appears plowed. The east parcel also appears to be developed as it currently exists with a small cluster of structures and some trees with open fields beyond.

  Adjoining properties appear developed essentially as they currently exist. There appears to be six residences with various outlining farm like structures on the adjoining lots to the north. To the east are a number of long rectangular hot house-like structures with a possible residence. To the south, Lone Tree Way appears to be an active road with similar residential-agricultural uses. The photo quality does not allow for more detail.

- **1999; Scale: 1"= 500'**

  The subject property and surrounding area appear essentially unchanged from the 1993 photo. The field area is green, indicating agricultural use, possibly for hay crops.

- **2005; Scale: 1"= 500'**

  The subject property and surrounding area appear essentially unchanged. The field areas of the subject property now appear plowed. The intersection of Lone Tree Way and O'Hara Avenue has been redeveloped into it current arrangement with traffic controls and split lanes.

- **2006; Scale: 1"= 500'**

  The subject property and surrounding area appear essentially unchanged. The rectangular hot house like structures immediately to the east of the subject property have been removed. To the west, just west of O'Hara Avenue is a newly graded residential subdivision.

- **2009; Scale: 1"= 500'**

  The subject property and surrounding area appear essentially unchanged. The field areas of the subject property now appear plowed.

- **2010; Scale: 1"= 500'**

  The subject property and surrounding area appear essentially unchanged. However, there are a few new large trucks in the central portion of the west lot. There are four or five trailers, possible trailer homes and six to eight vehicles parked on the southeastern corner of the east lot just east of the residence. No other significant changes were noted.

- **2012; Scale: 1: = 500'**

  The subject property and surrounding area appear essentially unchanged. However, the west lot appears to have been cleared of all large vehicles and the open areas appear to be mowed or plowed. The trailers and vehicles parked in the southeast corner of the east parcel are also gone.

About 275 feet to the south is a new large construction site with pads and pavement, the start of the currently existing church property. No other significant changes were noted.

5.4 TOPOGRAPHIC MAPS

BVNA reviewed USGS topographic maps of the subject property, adjoining properties, and surrounding area from the EDR collection. Map summaries follow.

- **1914 USGS Series 7.5 Minute, Brentwood Quadrangle Map; Scale: 1:31680**

  The subject property appears as undeveloped land. A road (Lone Tree Way) exists along the south property boundary and a road along the current O'Hara Avenue alignment exists about 100 feet to the east of the subject property. A few very sparse small structures are depicted in the region. The only significant development in the area is the Southern Pacific Railroad tracks, which lie about 2,400 feet to the southwest.

- **1916 USGS Series 15 Minute, Byron Quadrangle Map; Scale: 1:62,500**

  The subject and adjoining property appear unchanged.

- **1943 USGS Series 15 Minute, Byron Quadrangle Map; Scale: 1:62,500**

  The subject property is shaded indicating development as an orchard. One residence is depicted on the east parcel (current 7650 location), two residences are depicted on the center parcel in the current 7590 and 7600 locations, and three structures are depicted on the southern portion of the west parcel in the location of the 7560 residence, the small garage to the west, and a larger structure north of the small garage. No other significant changes were noted.

- **1954 USGS Series 7.5 Minute, Brentwood Quadrangle Map; Scale: 1:24,000**

  The subject and adjoining property appear unchanged.

- **1968- photorevised from 1954 USGS Series 7.5 Minute, Brentwood Quadrangle Map; Scale: 1:24,000**

  The subject property appears unchanged. Bonnie Lane exists to the north with numerous small structures indicated on the adjoining properties, similar to the current developments. Marsh Creek, a meandering creek about one mile to the southeast is now an improved channel. No other significant changes were noted from the 1954 photo.

- **1978 USGS Series 7.5 Minute, Brentwood Quadrangle Map; Scale: 1:24,000**

  The subject and adjoining property appear unchanged, except that only one structure, the 7560 residence is depicted on the west parcel. No other significant changes were noted from the 1968 photo.

5.5 LOCAL STREET DIRECTORIES

BVNA reviewed local street directory entries for the subject property and adjoining/nearby properties that EDR researched in approximately five-year intervals between the years 1975 and 2010. Target or adjoining properties were listed between 1994 and 2010.

Target addresses listings were as follows:

Street and Address	Business Name and Year
West Parcel	
7560 Lone Tree Way	2004-2010: Dan Turcotte; 1999: Timothy Regan
7570 Lone Tree Way	2004-2010: Dan Turcotte and Donna Mayes 1999- DTE, John & Michele Kerna; 1994: Turcotte, Dan Trucking
Center Parcel	
7590 Lone Tree Way	1994-2010: Caterina Nicoletti
7600 Lone Tree Way	1994-1999: "XXXX"
East Parcel 7650 Lone Tree Way	1994-2010 Sanchez

Adjoining and nearby properties were listed as residences with the exception of one north adjoining property at 901 Bonnie Lane, which was listed as Golden St Roofing in 1994. This business was not listed for any other year. Spinelli Trucking was listed at 7357 Lone Tree Way in 1999, more than 1,500 feet to the west of the subject property. Valley Oak Nursery was listed in 1994 at 7021 Lone Tree Way, more than 2,100 feet to the west. The nursery is still in operation.

5.6 REGULATORY AGENCIES

5.6.1 Tax Assessor

BVNA obtained Contra Costa County Tax Assessor's information about the subject property from the county Gismap.ccmap web page, the Parcel Quest web page on June 17, 2013, and the NETR Environmental Lien Search Report. Details are as follows.

Address	Parcel Number	Acres	Owner
7560 Lone Tree Way	018-060-051-2	2.54	Daniel A. Turcotte, Grant Deed dated 7-1-1977; tax records list a 636 sf structure built 1920

Address	Parcel Number	Acres	Owner
7590 Lone Tree Way	018-060-007-4	4.84	Caterina Nicoletti, Grant Deed dated 6-18-1997; tax records list 1,517 sf structure built 1919, and second structure at 931 sf, built in 1966
7650 Lone Tree Way	018-060-006-6	11.5	Frank Nicoletti, Trustee Grant Deed dated 9-25-2005

5.6.2 Building-Planning Department

BVNA contacted the City of Brentwood Building and Planning Department on May 31, 2013 and was told that no records were on file for the subject property addresses and recommended contacting the county building department.

On July 10, 2013, BVNA interviewed Mr. Tim Nielson, Assistant Planner for the City of Brentwood. Mr. Nielson stated that the city had no records for the subject property and that he was not aware of any environmental impacts or concerns regarding the subject property. Additional information is provided above in Section 4.4.

On June 5, 2013, BVNA submitted a written request to the Contra Costa County Building Inspection Division to review public records for the subject property. BVNA received copies of building permits and enforcement records via mail on July 1, 2013. A summary of the records reviewed is as follows:

6-25-1979: Building permit issued to Dan Turcotte for a single family residence with garage on Parcel 018-060-008 (west parcel). Final inspection 12-16-1980.

12-2-1980: Electrical permit issued to Vincent Nicoletti for power pole and connection to well, Parcel 018-060-007 (center parcel).

8-22-1977: Plumbing permit for gas line for heater to hydroponic greenhouse, Parcel 018-060-006 (east parcel).

5-19-1981: Building permit issued to Frank Nicoletti for Parcel 018-060-006, no other details

3-6-1996: Enforcement/Building records for Daniel Turcotte, Parcel 018-060-051 (west parcel). Case notes for business construction trucks, stored vehicle parts, and illegal use of structure as dwelling. No other details.

5.6.3 Fire Department

A written request for a file review pertaining to the subject property addresses was sent to records staff of the Contra Costa Fire Prevention Bureau on June 3, 2013. On June 7, 2013, BVNA received an email that no records were on file for the subject property.

5.6.4 Environmental Health

A written request for a file review pertaining to the subject property was sent to the Contra Costa County Department of Environmental Health for records regarding hazardous materials, ASTs, USTs, site inspections, and violations on June 3, 2013. On June 20, 2013, BVNA receive an email that records existed only for the 7560 addresses and files were archived. On July 3, 2013, BVNA visited the office for wells and septic system permits. A file that had several status notes and a 1979 plan for the 7570 residence depicted a septic tank and leach field to the west and southwest of the existing residential structure on the west. File notes indicate that the west parcel, currently APN: 018-060-051-2 had a retired APN: 018-060-008-2, also 018-060-049-6. No other significant information was obtained.

5.6.5 Regional Water Quality Control Board

A written request for a file review pertaining to the subject property was sent to Ms. Melinda Wong at the Regional Water Quality Control Board (RWQCB) on June 3, 2013. Ms. Wong responded by phone on June 7, 2013 that no records exist for the subject property. In addition, BVNA review the RWQCBs Geotracker website map page, and no case sites were listed for the subject property or nearby sites that would present a potential environmental concern to the subject property.

5.6.6 Department of Toxic Substances Control

A written request for a file review pertaining to the subject property was sent to the records clear at the Department of Toxic Substances Control on June 3, 2013. BVNA received a letter from DTSC that no files existed for the subject property addresses. A review of the government database research report by EDR (Appendix D) did not report state tracked cases for the subject property or the surrounding area that have the potential to impact the subject property. In addition, a review of sites listed by DTSC on its Envirostor database did not indicate any listings for the subject or adjoining properties in a mapped display of listings.

5.7 ACTIVITY & USE LIMITATIONS (AULS)

BVNA obtained a report of title and judicial records prepared by NETR Environmental dated June 27, 2013 for indications of environmental liens and AULs recorded against the subject property. No records of liens or AULs were found.

5.8 PREVIOUS ENVIRONMENTAL DOCUMENTATION

BVNA was not provided with any previous environmental reports that pertained to the subject property.

5.9 DATABASE REVIEW

BVNA reviewed a regulatory agency database search report prepared by EDR for information pertinent to the subject property and offsite facilities located within ASTM-specified search distances from the subject property. The database report identified seven case listings and 40 orphan listings as well as the

accessed databases. The subject property was not identified in the databases searched by EDR. The following adjoining property or nearby property identified by EDR is summarized as follows:

- 2801 O'Hara Avenue, Oakley, CA, Mrs. Betty J. Blumen, is listed on the county Site List as a UST site. The cross-gradient site is located approximately 200 feet to the northwest and is listed as inactive.

6.0 FINDINGS AND OPINIONS

BVNA identified obvious subject property uses from the present back to 1939, at which time the subject property was developed for agriculture, primarily orchards with apparently one residence per parcel. Tax records indicate that the west and center parcels were developed with one residential structure on each parcel as early as 1919 to 1920. A second residence (7600) was built on the center parcel in about 1966. The 7570 residence (west parcel) was built in about 1980 and appears to have been well maintained. The subject property use was essentially the same until about 1993, by which time the orchard trees had been removed and the three parcels were developed in their general current configuration. This ESA revealed the following findings:

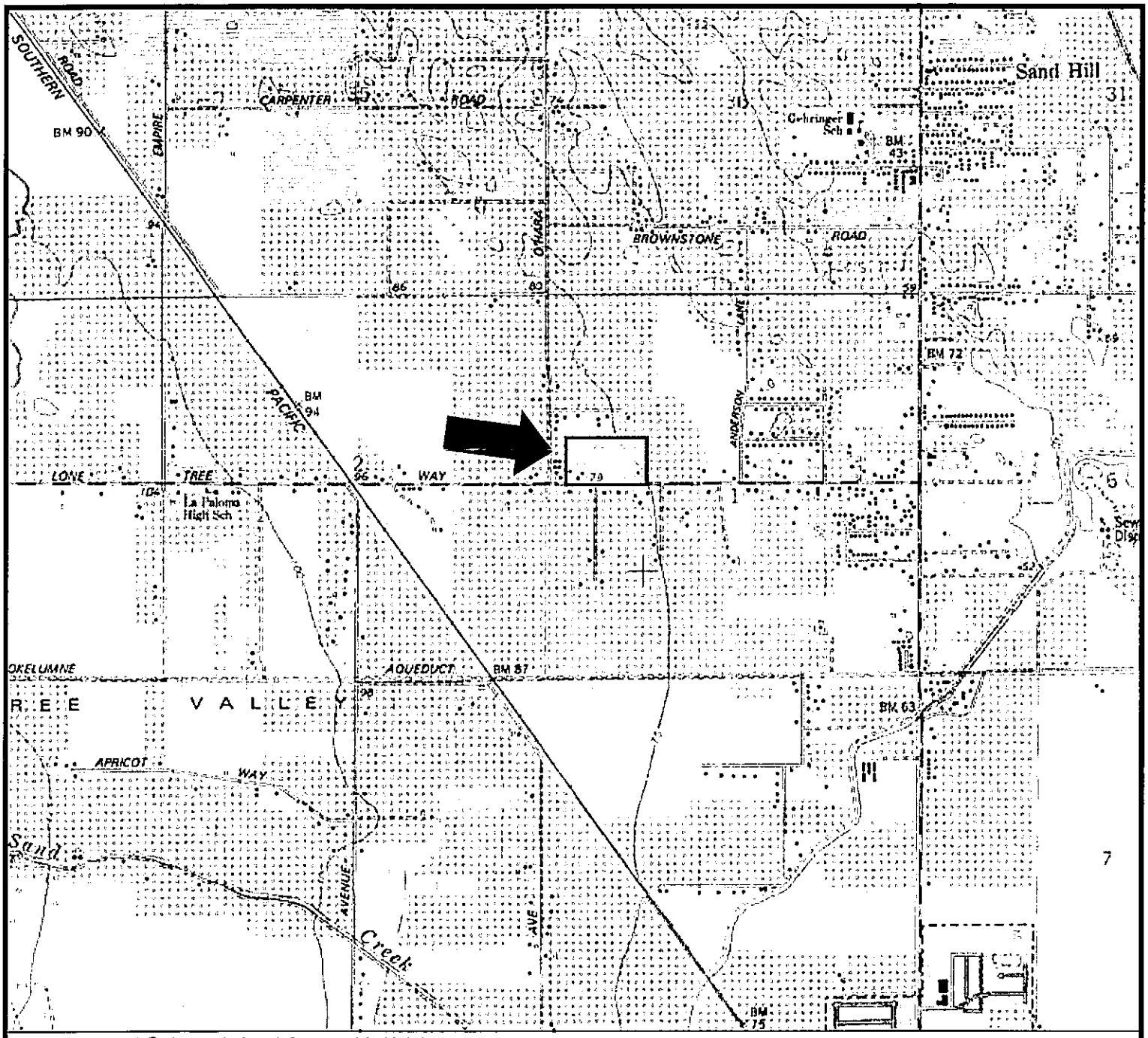
- Four detached shop/garage/storage structures are present on the subject property and apparently were used for farm operations and the maintenance of equipment and vehicles. Two structures on the west lot appear to have been used by the property owner to maintain trucks and equipment to support his excavation and construction business from about 1980 through about 2010. This use likely included the storage of hazardous materials and petroleum products, and the generation of regulated wastes. Historical use of the subject property for vehicle maintenance is a REC.
- The residential structures on the subject property have domestic waste septic systems, which are de minimis. County enforcement of illegal use of a building as a dwelling may indicate that an additional septic system exists for the shop building. The possibility of an additional septic system at the shop is a REC because of the historical use for vehicle and equipment servicing and lack of indication of alternate means to dispose of liquid wastes.
- The subject property was developed as a walnut orchard by 1939, possibly as early as 1920, which continued until about 1993. Agricultural use of the land may include the use of pesticides and fertilizers, and no environmental investigations have been conducted at the subject property. This finding is a REC.
- The subject property has four domestic supply wells, one of which is abandoned (east parcel) but remains open. Wells that are not in use are potential paths for contaminants to reach groundwater. This finding is a potential environmental concern.
- Review of the EDR government database report identified one inactive UST site about 200 feet northwest and cross-gradient of the subject property. No release from this feature is known. Based on distance, geologic conditions and reviewed records, the presence of this UST is *de minimis*.

7.0 CONCLUSIONS AND RECOMMENDATIONS

BVNA conducted a Phase I ESA in conformance with ASTM Designation: E 1527-05 of the subject property located at 7560 through 7650 Lone Tree Way, Brentwood, Contra Costa County, California. This ESA has revealed the following recognized environmental conditions (RECs) and environmental concerns in connection with the subject property, as follows:

- Five detached shop/garage/storage structures are present on the subject property and apparently were used for farm operations and the maintenance of equipment and vehicles. Two structures on the west lot appear to have been used by the property owner to maintain trucks and equipment to support his excavation and construction business from about 1980 through about 2010. This use likely included the storage of hazardous materials and petroleum products, and the generation of regulated wastes. Historical use of the subject property for vehicle maintenance is a REC.
- County enforcement of illegal use of a building as a dwelling may indicate that an additional septic system exists for the shop building on the west parcel. The possibility of an additional septic system at the shop is a REC.
- The subject property was developed for orchard use by 1939 and through about 1993. The likely use of agricultural chemicals commonly associated with orchards over numerous decades is a REC.
- The subject property has four domestic wells, one of which is abandoned but remains open. Wells that are not in use are potential paths for contaminants to reach groundwater. This is a potential environmental concern.

BVNA recommends a subsurface investigation of soil, groundwater and soil vapor on the subject property to assess the potential for maintenance activities and historical agricultural uses to have impacted the subject property.



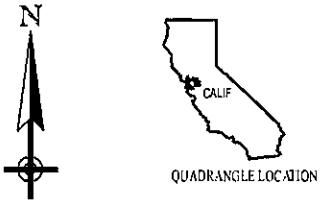
Source: TOPO! © 2000 National Geographic Holdings

Note: Location Information is Approximate

1 MILE

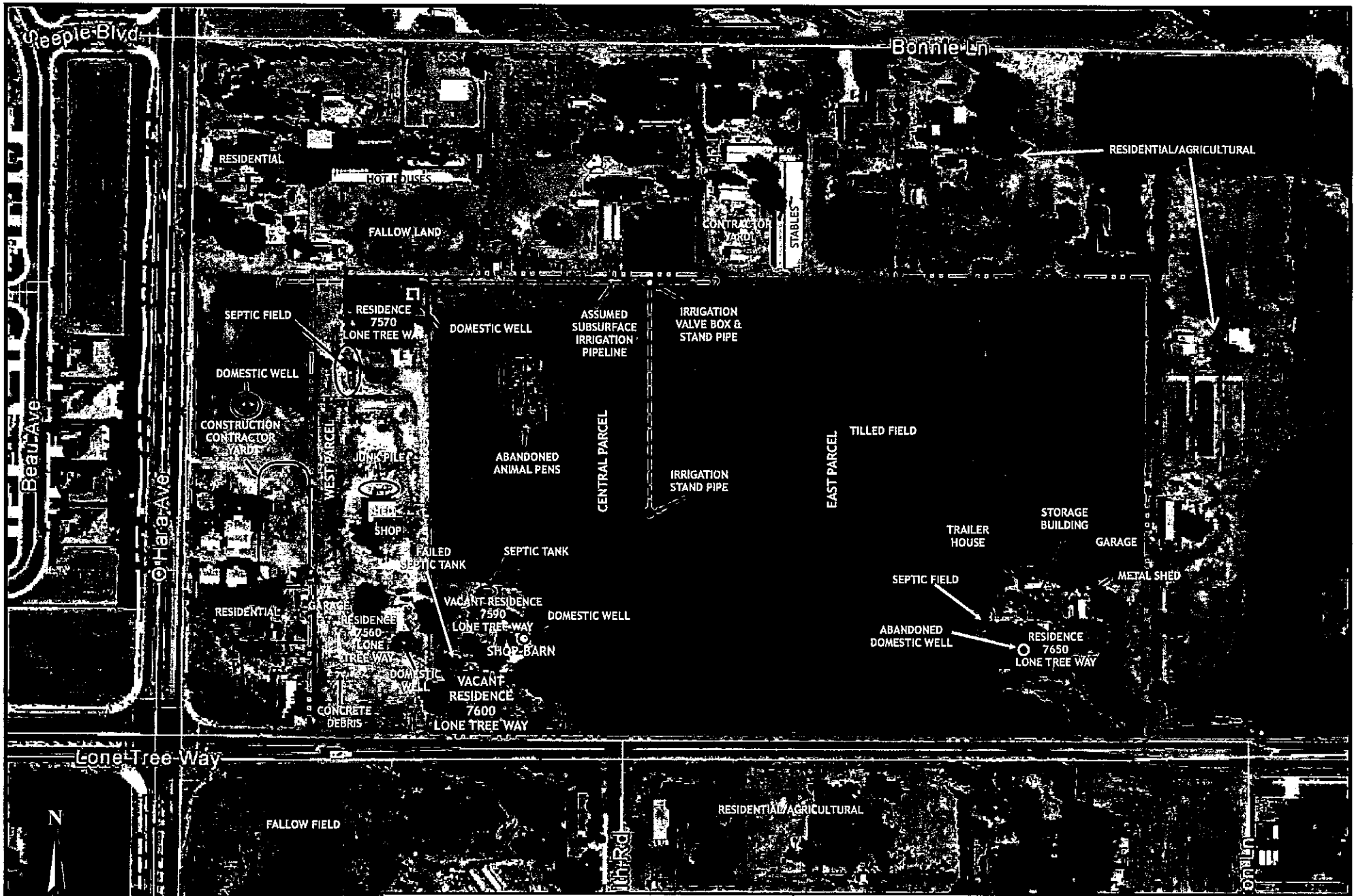
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

Portion of the 7.5-Minute Series Brentwood, California
Quadrangle Topographic Map (Datum: NAD 83)
United States Department of the Interior
Geological Survey
1978



SUBJECT PROPERTY LOCATION	FIGURE
Agricultural Properties 7590-7650 Lone Tree Way Brentwood, California Project No. 33113-013112.00	1

BUREAU VERITAS



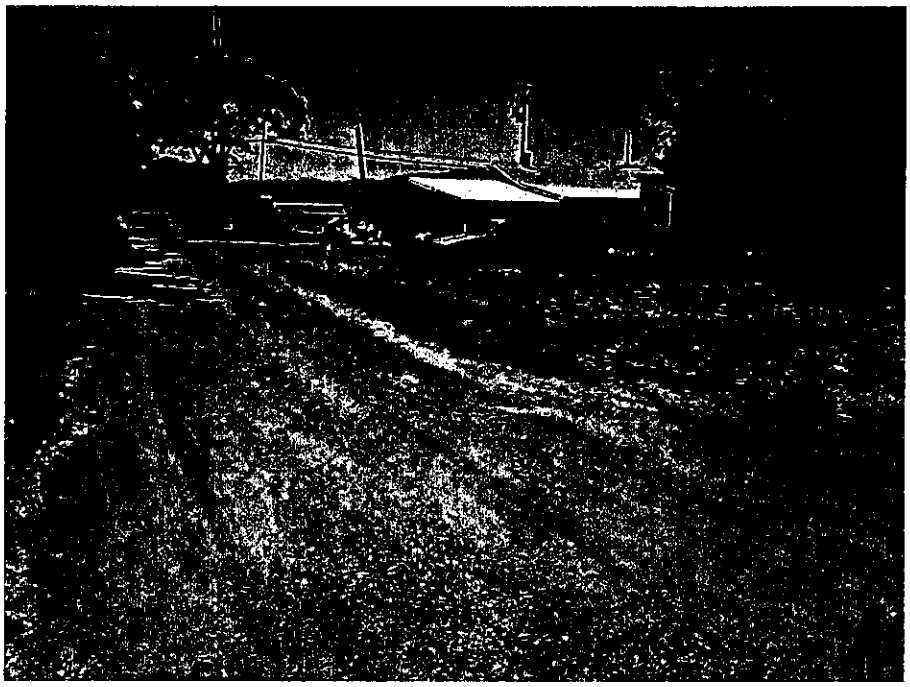
LEGEND	SUBJECT PROPERTY PLAN	FIGURE
—·—·— Approximate Subject Property Boundary	Agricultural Properties 7590-7650 Lone Tree Way Brentwood, California Project No. 33113-013112.00	2

BUREAU VERITAS

PHOTOGRAPHS

Project No. 33113-013112.00	**Description**	View across Lone Tree Way of the west parcel (7560 lot) and adjacent center parcel white house (7600) and red house (7590) in background. View to the northeast.	**1**
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	**Photo Date** May 31, 2013

Project No. 33113-013112.00	**Description**	APN: 018-060-051, west parcel, 7560 residence in center front, 7570 residence in back right. Note small garage at left and shop behind tree (center). View to north.	**2**
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	**Photo Date** May 31, 2013



Project No. 33113-013112.00	Description	7560 residence on west parcel, view to southwest	3
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

Project No. 33113-013112.00	Description	Domestic well at 7560 residence	4
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

Project No. 33113-013112.00	Description	Small garage on west parcel, west side of APN: 018-060-051, view to north	5
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

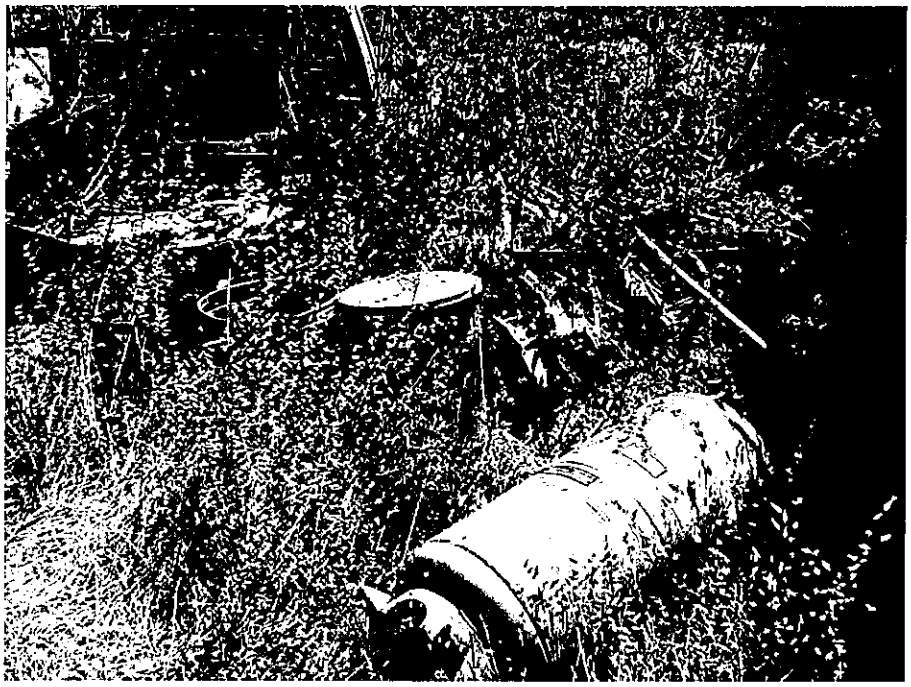
Project No. 33113-013112.00	Description	Interior view of small garage on west parcel	6
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

Project No. 33113-013112.00	Description	North side of small garage, storage of potentially hazardous wastes with small area of staining	7
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

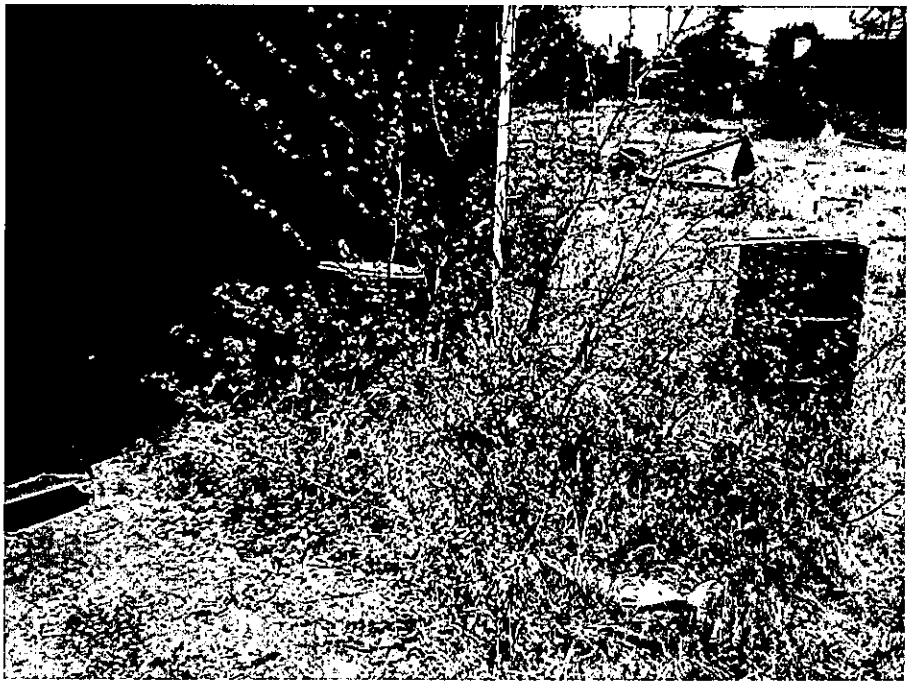
Project No. 33113-013112.00	Description	Shop/garage, mid west parcel. Note small enclosure at left by tree for compressor equipment. View to northwest.	8
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

Project No. 33113-013112.00	Description	Air compressor on south side of shop building	9
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

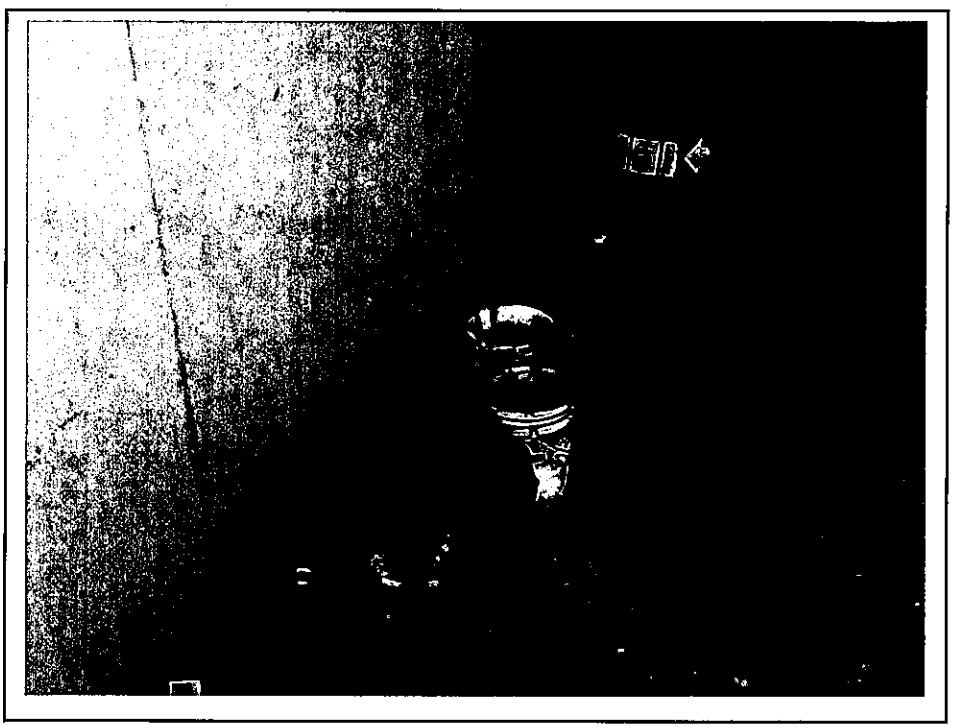
Project No. 33113-013112.00	Description	Rear of shop building and adjacent shed on center parcel. View to east	10
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013



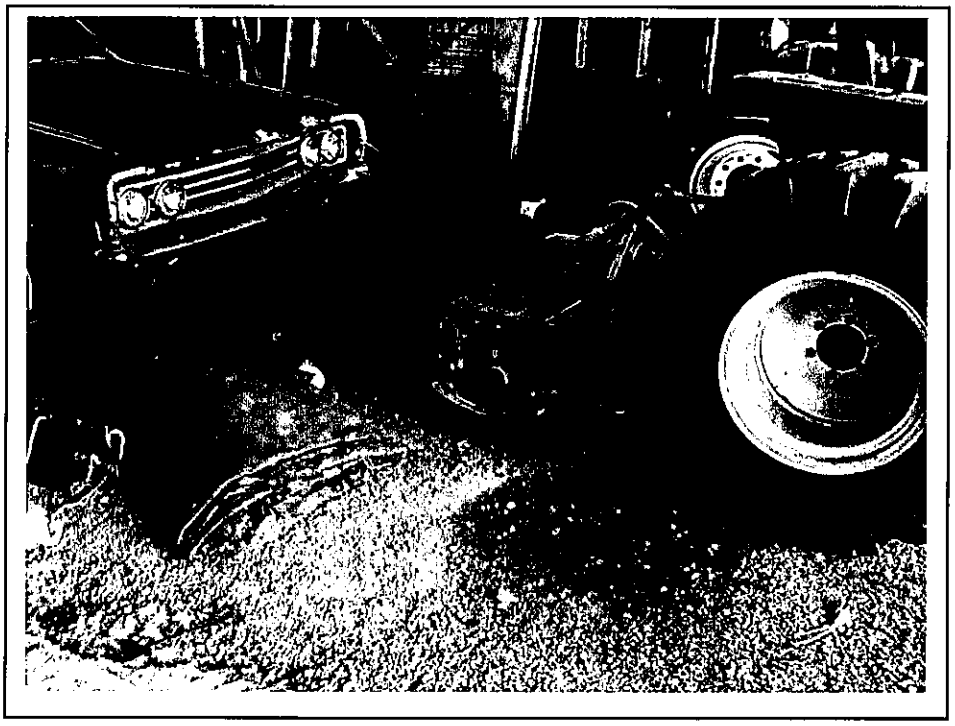
Project No. 33113-013112.00	Description	Junk pile on north side of shed, west parcel	11
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013



Project No. 33113-013112.00	Description	Drum, likely waste oil, at northeast corner of shop building/shed	12
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013



Project No. 33113-013112.00	Description	Waste containers in shed on north side of shop building	13
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013



Project No. 33113-013112.00	Description	Stained soil inside shed, north side of shop building	14
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

Project No. 33113-013112.00	Description	7570 residence, north east view. North portion center parcel.	15
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

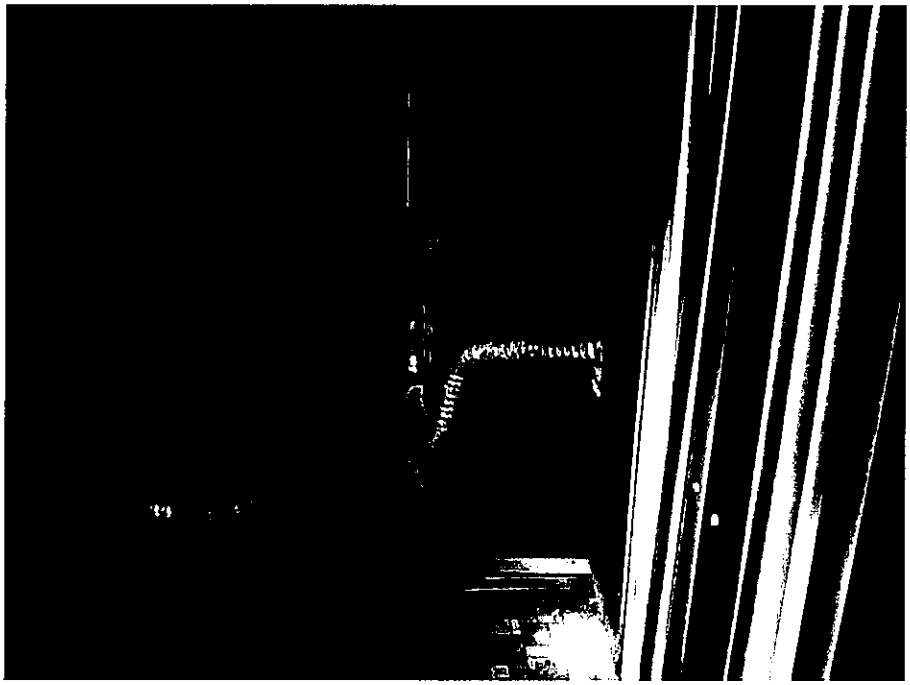
Project No. 33113-013112.00	Description	Backyard of 7570 residence. Domestic well within vine covered enclosure at center of photo. View to east.	16
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

Project No. 33113-013112.00	Description	Yard area to west of 7570 residence. View to south.	17
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

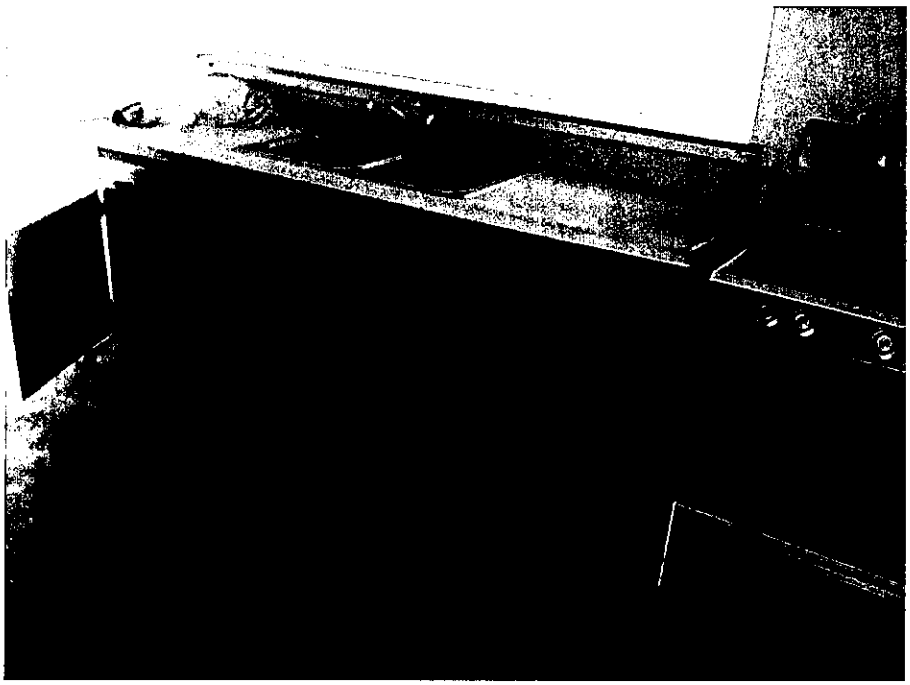
Project No. 33113-013112.00	Description	East side of 7570 residence, vehicle storage	18
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

Project No. 33113-013112.00	Description	Front house on center parcel, 7600 vacant residence. View to north from Lone Tree Way.	19
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

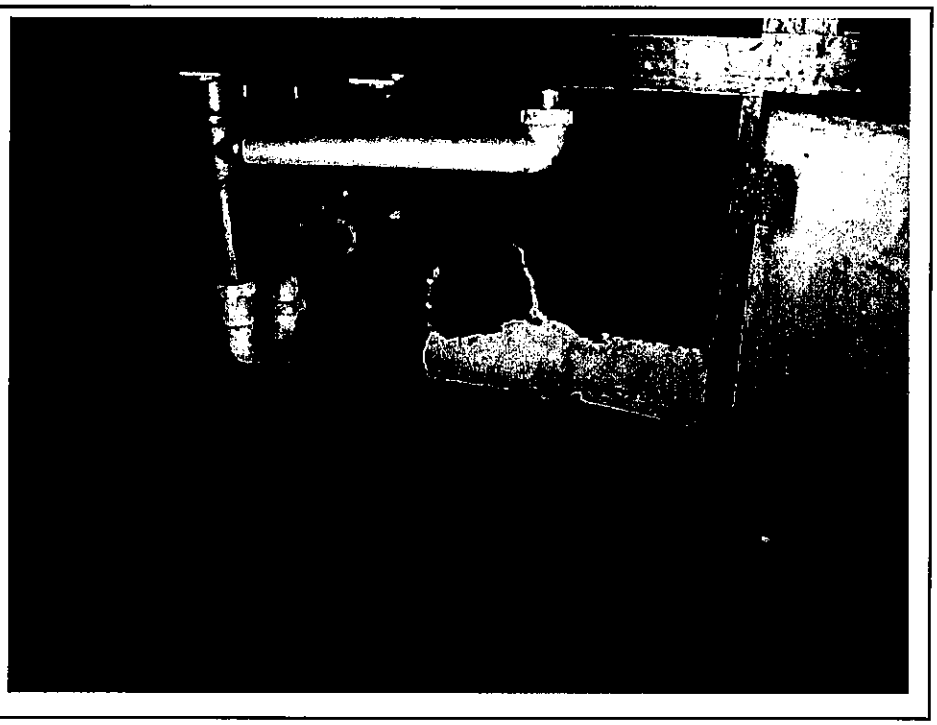
Project No. 33113-013112.00	Description	Central part of 7600 residence from living room.	20
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013



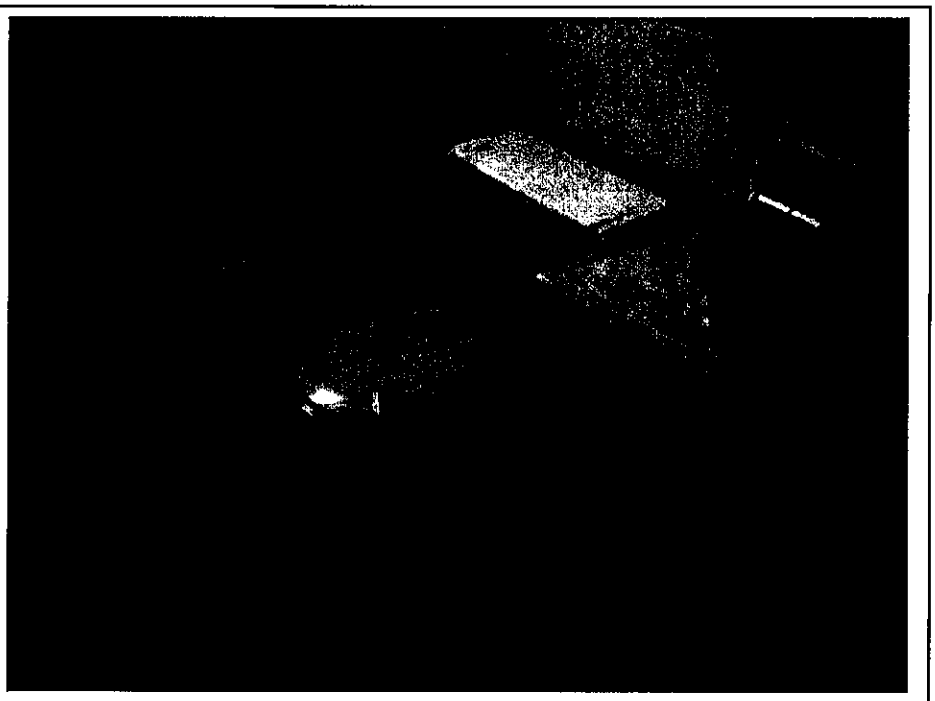
Project No. 33113-013112.00	Description	Laundry hookups in kitchen area (7600 residence)	21
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013



Project No. 33113-013112.00	Description	Kitchen (7600 residence)	22
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013



Project No. 33113-013112.00	Description	Water damage under kitchen sink (7600 residence)	23
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013



Project No. 33113-013112.00	Description	Bathroom (7600 residence)	24
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

Project No. 33113-013112.00	Description	Bathroom ceiling with significant moisture damage and fungal growth (7600 residence)	25
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

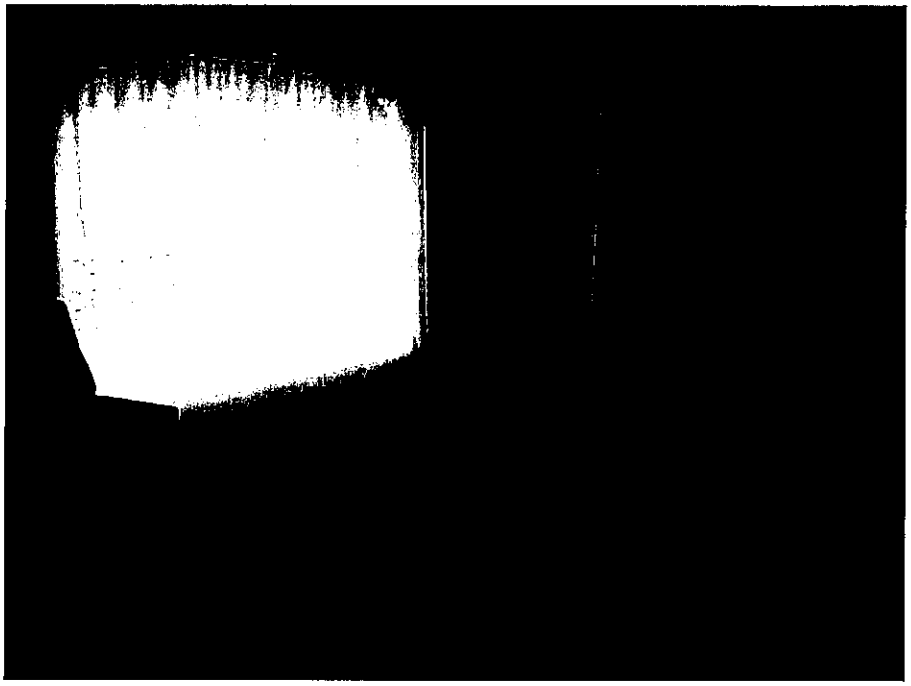
Project No. 33113-013112.00	Description	Collapsed septic tank at rear of 7600 residence. View to south.	26
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

Project No. 33113-013112.00	Description	Front of 7590 residence, vacant building, center parcel, view to north	27
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

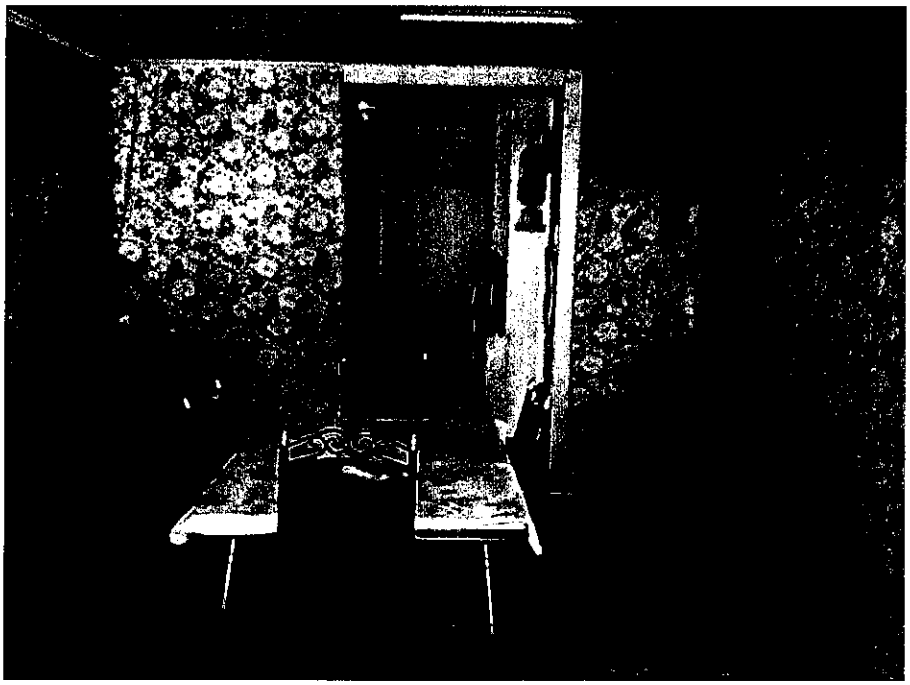
Project No. 33113-013112.00	Description	Side view of 7590 residence. View to southwest	28
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

Project No. 33113-013112.00	Description	North side of 7590 residence, concrete slab near fence reportedly covers septic tank. View to west.	29
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

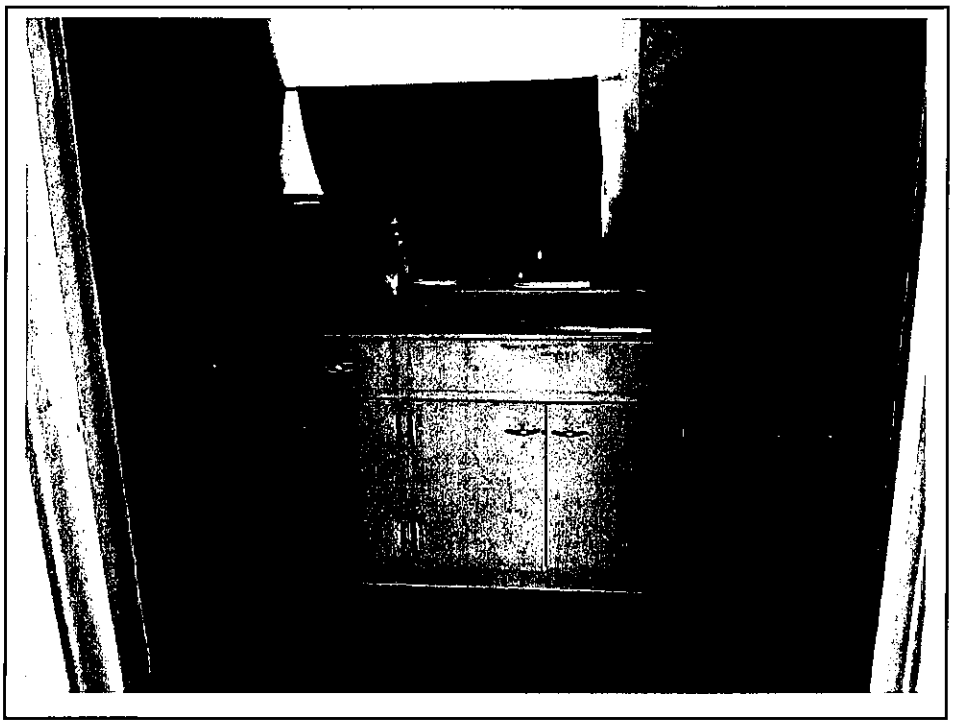
Project No. 33113-013112.00	Description	Upstairs room (7590 residence)	30
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013



Project No. 33113-013112.00	Description	Living room (7590 residence)	31
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

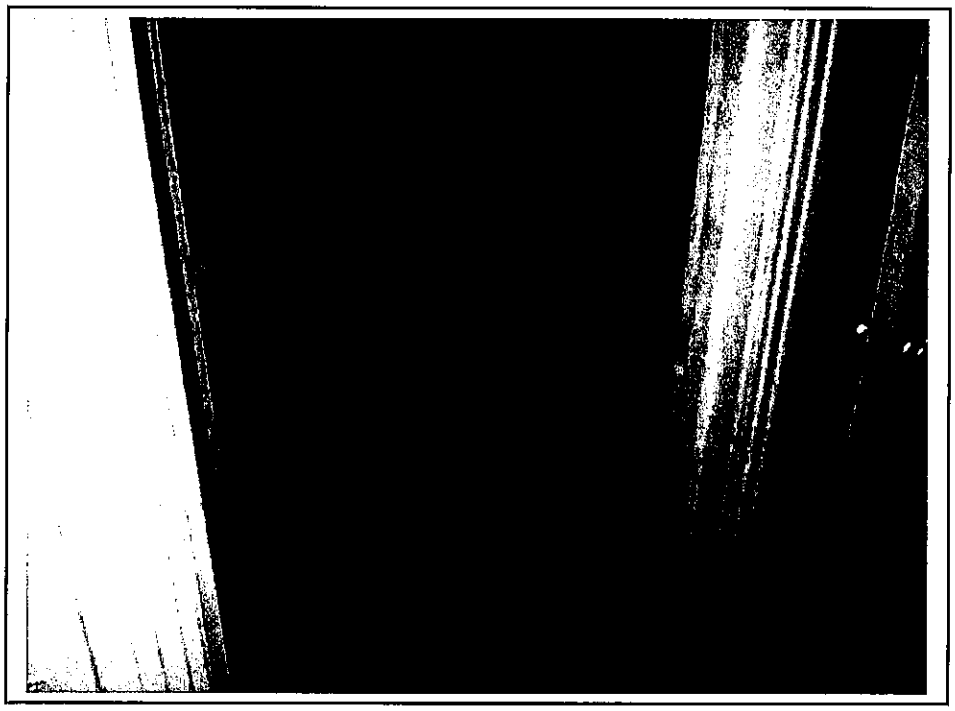


Project No. 33113-013112.00	Description	Dining room (7590 residence)	32
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013



Project No. 33113-013112.00	Description	Kitchen (7590 residence)	33
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

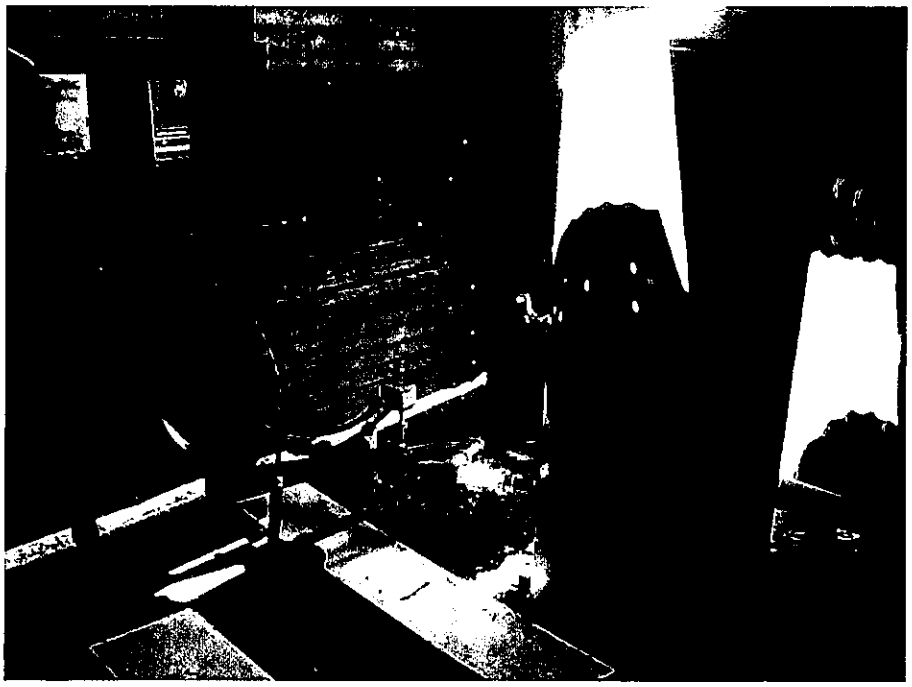
Project No. 33113-013112.00	Description	Utility room (7590 residence)	34
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013



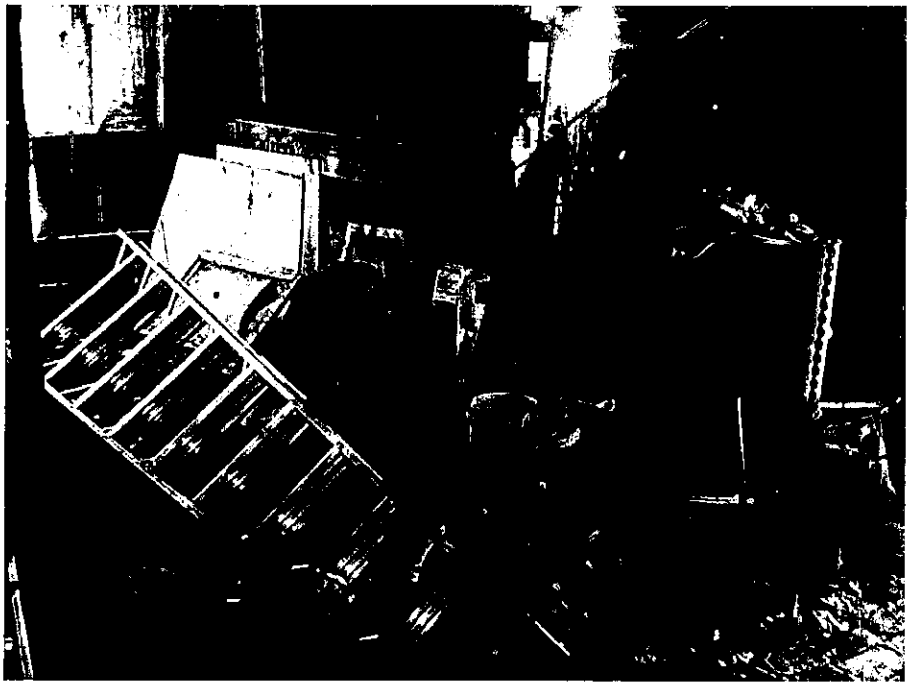
Project No. 33113-013112.00	Description	Bathroom (7590 residence)	35
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

Project No. 33113-013112.00	Description	Second bathroom (7590 residence)	36
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

Project No. 33113-013112.00	Description	Barn – south portion of center parcel, view to south	37
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013



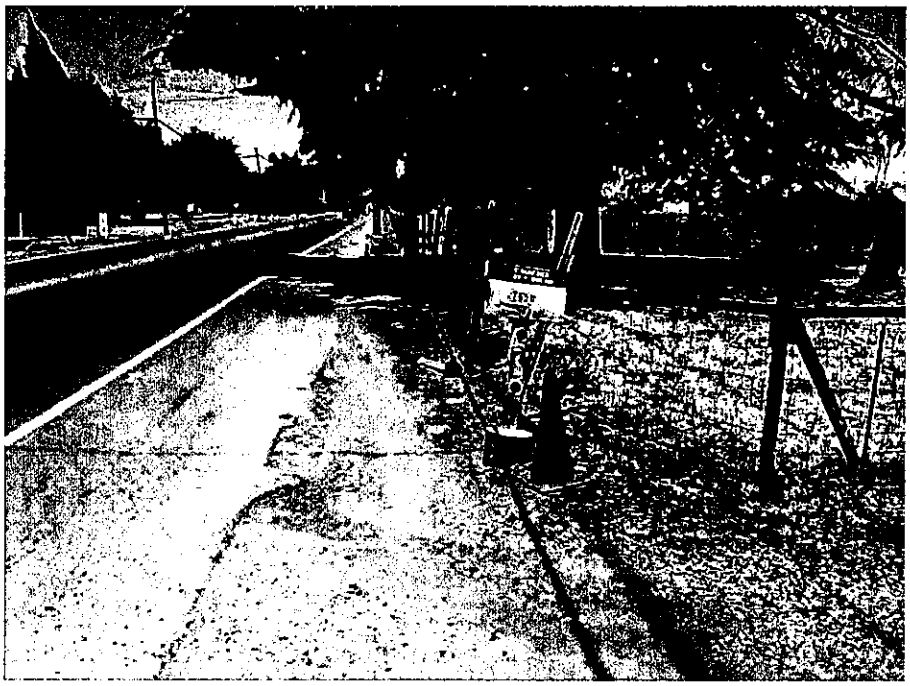
Project No. 33113-013112.00	Description	Domestic well inside barn	38
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013



Project No. 33113-013112.00	Description	Interior of barn, shop area	39
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

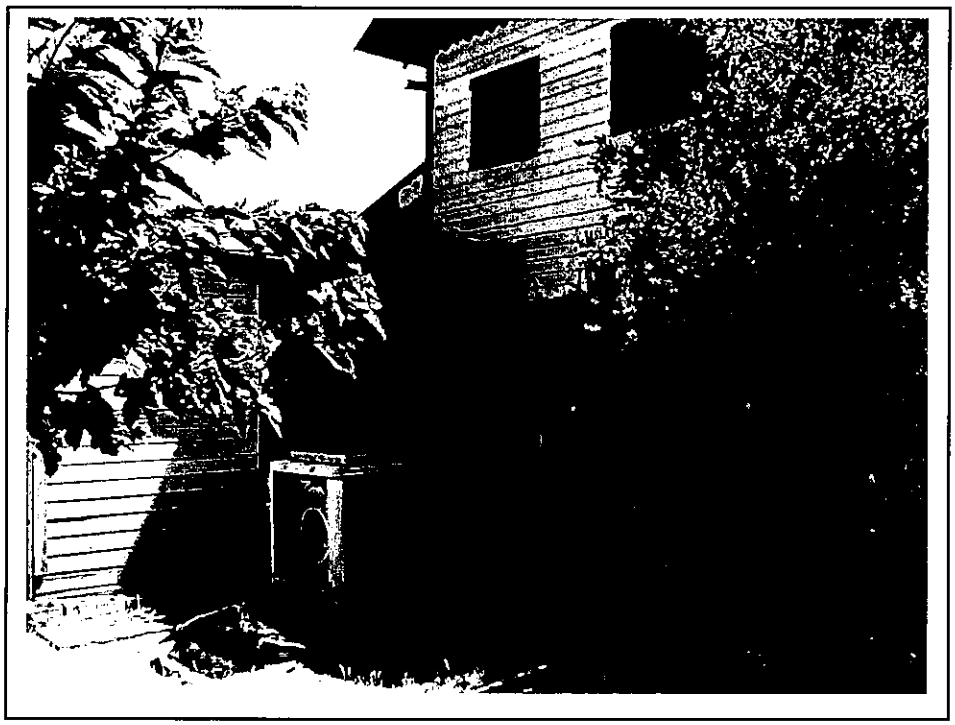
Project No. 33113-013112.00	Description	Abandoned animal pens in northern portion of lot surrounded by plowed field with barn in distant background at upper right. View to south.	40
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

Project No. 33113-013112.00	Description	Irrigation stand pipe on lot boundary between center and east parcels looking north. Larger irrigation standpipe/valve box at upper center of photo at distant north property boundary	41
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

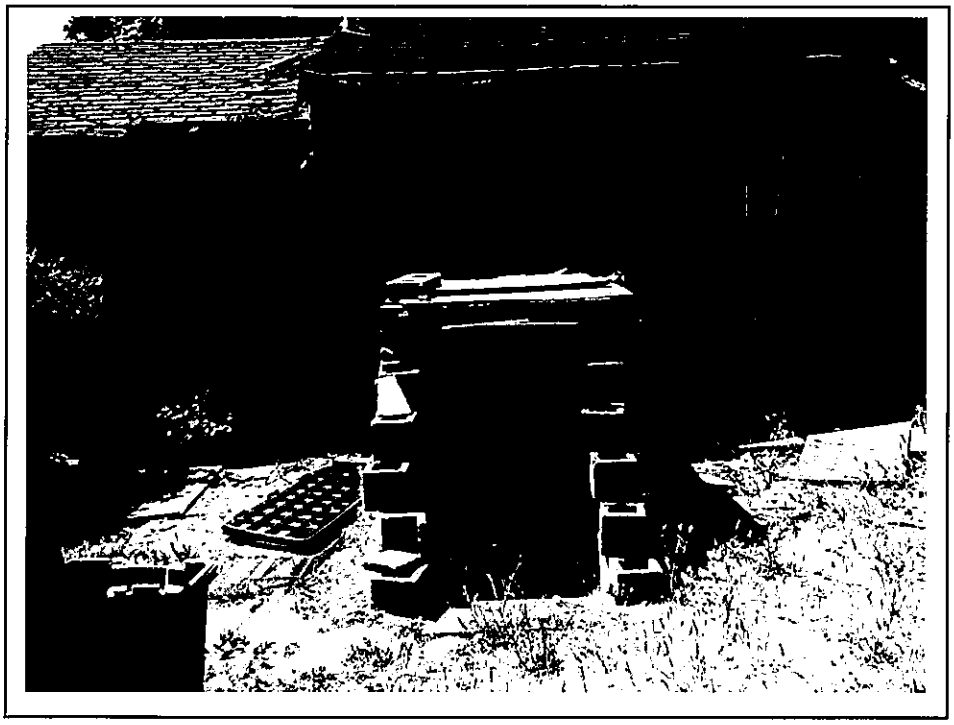


Project No. 33113-013112.00	Description	East parcel south boundary looking along Lone Tree Way. Mail box to 7650 residence. View to west	42
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

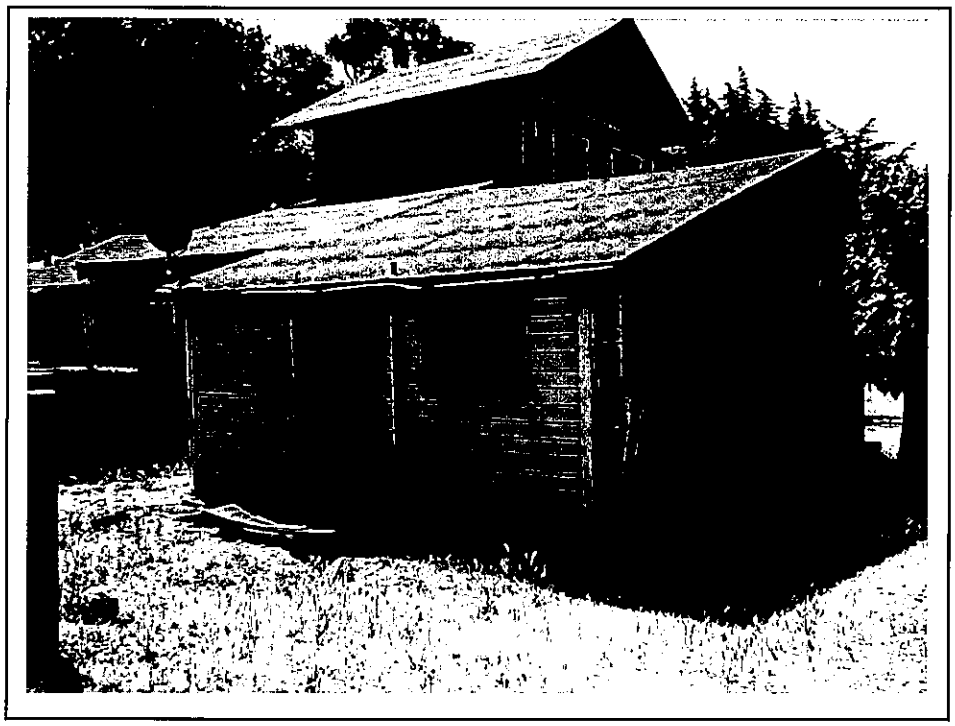
Project No. 33113-013112.00	Description	7650 residence. Domestic water tank is location of abandoned supply well, open hole. View to northwest.	43
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013



Project No. 33113-013112.00	Description	Back of 7650 residence. View to northeast.	44
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

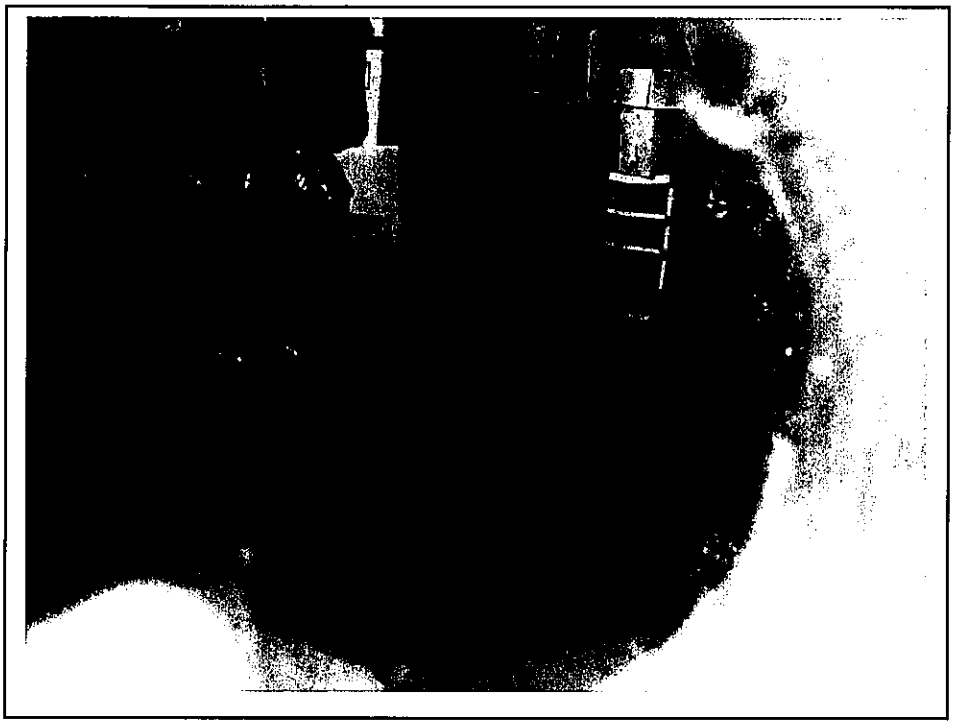


Project No. 33113-013112.00	Description	North side of 7650 residence and boarded up access to basement – reportedly heating equipment area. View to south	45
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

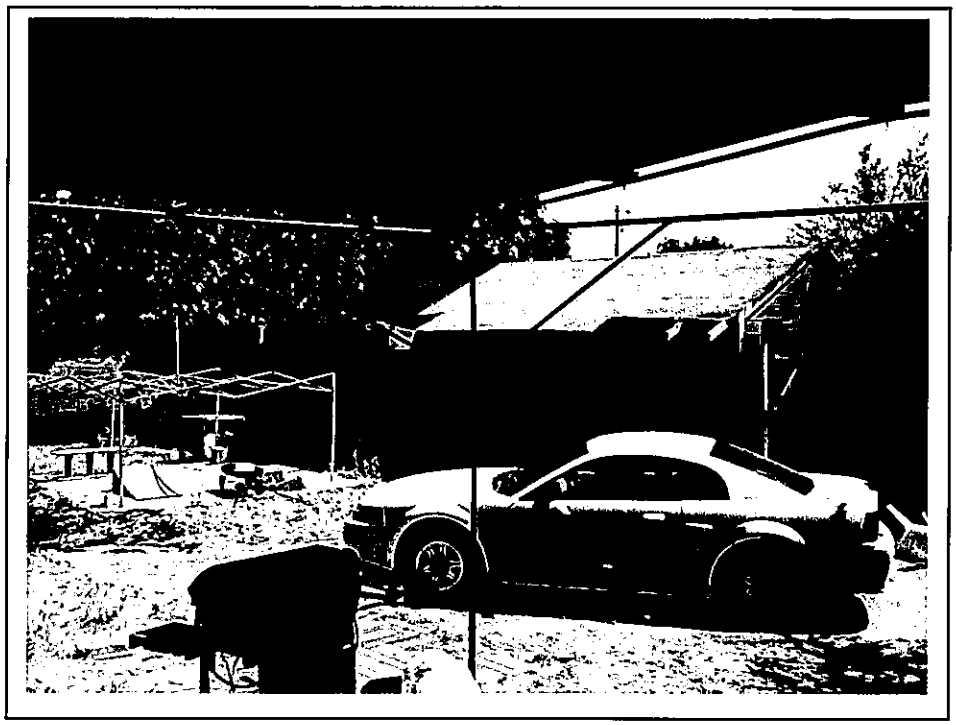


Project No. 33113-013112.00	Description	North side of 7650 residence. View to southeast.	46
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

Project No. 33113-013112.00	Description	Storage building and trailer home north of residence. View to west	47
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013



Project No. 33113-013112.00	Description	Interior view of storage building through window, general supplies.	48
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013



Project No. 33113-013112.00	Description	Garage and shed, northeast of residence. View to northeast.	49
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

Project No. 33113-013112.00	Description	Interior view of garage through window	50
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

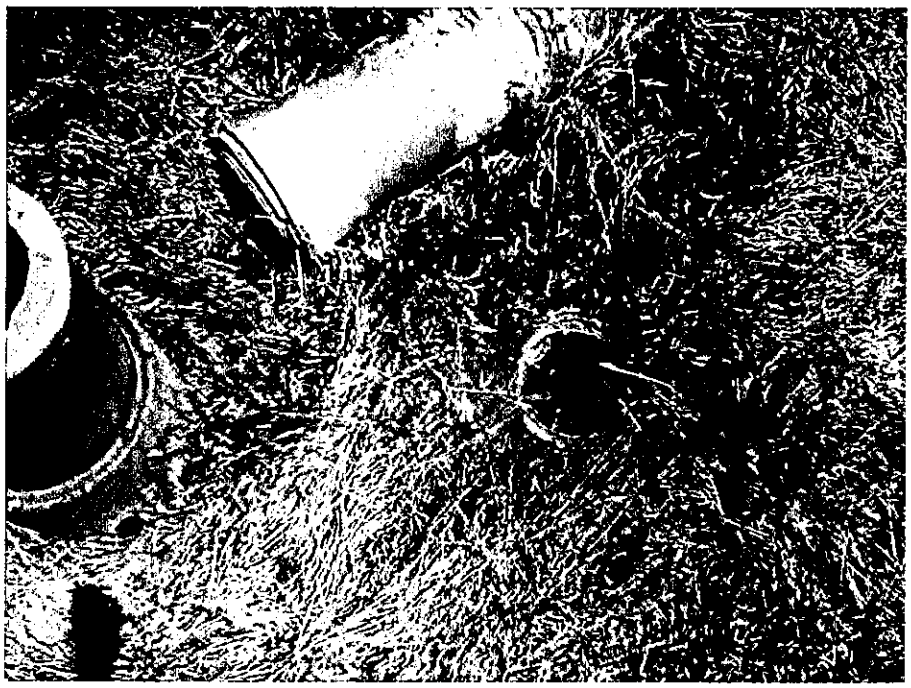
Project No. 33113-013112.00	Description	Metal storage shed to northeast of garage used for general storage. View to east	51
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

Project No. 33113-013112.00	Description	Field area north of 7650 residence. Circular metal structure is reportedly part of a walnut drier from historical orchard operations. View to west.	52
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

Project No. 33113-013112.00	Description	East adjoining property, shop/barn and residence at right. View to southeast from east property boundary.	53
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

Project No. 33113-013112.00	Description	North adjoining property, former stables structure. View to west along north property boundary.	54
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

Project No. 33113-013112.00	Description	Northwest adjoining property, contractors yard, hot houses, and stacked cut wood from trees. View to west along north property boundary of west parcel.	55
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013



Project No. 33113-013112.00	Description	Damaged county irrigation piping along north property boundary, west parcel	56
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	Photo Date May 31, 2013

Project No. 33113-013112.00	**Description**	West adjoining property along west property boundary. Off site domestic well by top of post, O'Hara Avenue beyond white fence. View to southwest.	**57**
	Name	Agricultural Properties, 7560-7650 Lone Tree Way, Brentwood, California	**Photo Date** May 31, 2013

APPENDIX A

RESUMES

Donald A. Ashton, PG, REA, CEM

Senior Geologist, Environmental Services

M.S., Geological Sciences, 1987
San Diego State University, California

B.S., Geological Sciences, 1980
San Diego State University, California

Professional Geologist, California, No. 5993

Registered Environmental Assessor in California, No. 05624

Certified Environmental Manager Nevada, No. 1833

OSHA 40-hour Hazardous Materials Safety Certification

OSHA 8-hour Refresher, Hazardous Materials Safety Certification

Donald A. Ashton has more than 22 years of experience in conducting environmental assessments in numerous states that include Phase I and Phase II investigations, modeling contaminant hydrogeology, preparing and implementing remedial action plans, and auditing sites for regulatory compliance. He currently holds certificates as an environmental professional in both California and Nevada.

Mr. Ashton has extensive experience conducting and managing assessments of various industrial and commercial sites, high-rise buildings, shopping centers, multi-site acquisitions, and land tracts. Assessments have included metal foundries, historic oil fields, bulk petroleum storage facilities, agricultural pesticide formulation facilities, chemical storage and mixing facilities, semiconductor/circuit board manufacturers, coal-fired power plants, metal plating facilities, asphalt plants, petroleum pipeline routes, food processing plants, truck automotive repair terminals, and dry-cleaning facilities. He also managed numerous environmental assessments for FCC permit compliance for antenna installations at new PCS (digital personnel communications system) sites for a major company.

Remediation projects have included closure of an abandoned million gallon above ground tank containing waste oil and sludge at a USEPA Super Fund site, closure of petroleum hydrocarbon releases at UST sites by excavation, tank removal, groundwater removal, and chemical injection. Characterization and remediation of releases along old product pipeline routes. Characterization of dry cleaner release sites, in-situ remediation, and site closures. He has successfully managed numerous projects for financial and insurance institutions, fund management firms, property developers, attorney firms, and public agencies.

As an environmental consultant, Mr. Ashton effectively negotiates with regulatory agencies in designing and obtaining approval for site characterizations, remedial action plans, and site closures. As a project manager, he develops site conceptual models, implements efficient assessments and remedial programs, and contract administration.

As a manager, Mr. Ashton assembles and manages project teams; develops proposals and work plans; schedules projects; estimates costs and provides budget control; and manages permitting and subcontractors.

In 2010, Mr. Ashton was part of the BP Oil Spill Cleanup response in Cocodrie, LA. Between May and October, he was responsible for the Heat Stress Management Plan and general safety programs for over 1,200 workers onshore, on nearshore waters, and on barrier islands.

Donald A. Ashton, PG, REA, CEM

Project Experience

Remedial Assessment

Property Development Firms

Mr. Ashton managed a remedial assessment of three contiguous industrial properties in Oakland California. Former industrial uses of the properties dated back to the mid-1800s and include lead, silver, and gold smelting, nitric and sulfuric acid manufacturing, other chemical manufacturing, lithopone (paint pigment) manufacturing, and truck maintenance operations and maintenance. These former industrial uses resulted in disposal and or releases to the properties of waste smelting slag, petroleum hydrocarbons, filter cake and other paint pigment wastes, and other imported fill materials. The responsible party (RP) that accepted the environmental liability for these properties retained Clayton (now Bureau Veritas) to compile the results of various former independent environmental investigations and proceed to mitigate the sites. A previous environmental firm prepared a feasibility study for one of the properties that evaluated various remedial programs. The proposed remedies were very costly and involved long-term solutions. Clayton proposed to complete the characterization of the properties and seek a conditional closure, a closure that involves limited agency oversight, based on the stabilized nature of the industrial wastes left at the site.

Mr. Ashton conducted additional soil, groundwater, and surface water samplings to complete the site characterization. Potential preferential groundwater migration routes were evaluated using dye studies. The findings indicated that, although several thousand tons of hazardous waste material remains on the site, no significant migration of the waste material was occurring and there was no significant impact to the nearby surface waters that flow to the bay. The property was sold based on Clayton's findings and the new owners retained Clayton to continue with the mitigation efforts.

Clayton negotiated a final Site Cleanup Requirement (SCR) with the Regional Water Quality Control Board (Board) focusing on a future conditional closure, that required a Deed Restriction, Remediation and Risk Management Plan, Soil Management Plans, limited onsite remedial actions, implementation of an offsite Supplemental Environmental Project to enhance nearby wetlands, and reduced groundwater and surface water monitoring. The groundwater monitoring program was further reduced to an annual event. Bureau Veritas is in the process of closing 18 of the 42 on site wells and is working with the client to proceed with a request for "conditional no further action." The savings to the client over the previous proposed remedial actions is estimated at over $10,000,000.00.

Superfund Site Remediation

Superfund Site – Former Petroleum Recycling Facility

Mr. Ashton served as project manager for implementation of removal activities at an abandoned waste oil facility in Vernalis, California. The site contained an abandoned 1.2 million gallon aboveground storage tank (AST) that contained waste oil, hazardous waste water, tank-bottoms sludge, as well as abandoned tank trucks containing waste oil and tar. Initiated under a CERCLA Unilateral Order issued by the EPA, the work was funded by a potentially responsible party (PRP). Mr. Ashton directed the investigation of waste materials, all waste removal activities, and coordinated with the various agencies for the decommissioning and demolition of site facilities. The removal action ordered by the EPA in Region IX, received the final agency sign off in August 2003.

Phase II Environmental Investigation and Remedial Cost Estimating

Former Oil Production Field, Santa Barbara County, California

Served as project manager for a Preliminary Phase II Environmental Investigation of an active 213-acre golf course developed over a major historic oil field in Santa Barbara County, California. Prior to acquisition of the property, a preliminary soil sampling was conducted to assess the environmental impact of the historic well field operations to the site. A review of historic aerial photographs (1929 through 1955)

was also conducted to document the oil field operations from the late 1920s to the early 1960s. Nine key areas of concern were identified that included 14 former oil wells, 91 former aboveground tanks (10' to 120' in diameter), a refining plant, 26 open sumps, 18,000 feet of major distribution pipelines, and other ancillary systems. Mr. Ashton assisted the client's legal staff in negotiating with the responsible party for the oil field, a major oil company, in seeking indemnity for unknown environmental impacts and liability associated with acquiring and redeveloping the site. The client proceeded with acquisition of the property. Mr. Ashton teamed with other Bureau Veritas geologists to conduct an expedited Phase II investigation drilling an additional 152 borings with a geophysical site survey to better characterize the site while the golf course remained open. The client is proceeding with redevelopment plans and permitting with the local environmental agencies.

Underground Storage Tanks

San Francisco Unified School District

Mr. Ashton managed the assessment of approximately 70 school sites for historical use of underground storage tanks (USTs), conducted historical records/plan reviews, visually evaluated sites, conducted geophysical surveys (including ground-penetrating radar), wrote tank removal specifications for confirmed USTs, managed UST removals, and conducted environmental testing for agency site closures.

Industrial Property Assessments

Property Management Company

Mr. Ashton conducted a Phase I/II investigation at one Silicon Valley multi-tenant site, which resulted in a portion of the property being subdivided and the Super Fund site portion being sold to the responsible party for the release. Another portion of the property was found to have a release of 1,1,1-TCA and PCE to groundwater during a third party due diligence investigation. Mr. Ashton was retained to quickly confirm the findings and characterize the site. Agency records and site use connected historical use of the property by the tenant to the release of solvents to groundwater. Mr. Ashton then became involved in owner/attorney/tenant negotiations to get the tenant named by the Regional Water Quality Control Board (RWQCB) as the responsible party for the release. Following remedial actions by the tenant with RWQCB oversight, the property owner was ultimately able to sell the property.

Phase I and II Environmental Site Assessment and Additional Investigation

Dry Cleaners, Oakland, California

Mr. Ashton managed a site investigation of a commercial property in early 2009 that has an active dry cleaning business. A workplan approved by the RWQCB included soil borings to collect soil and grab-groundwater samples on and off site, the installation of groundwater monitoring wells, and multiple soil vapor sample points. The field work was completed in a week. The investigation confirmed a release of PCE at the upgradient corner of the property. The investigation also focused on an historic dry cleaning business and a former gasoline station. No solvent release was found at the historic dry cleaner site; however, the former gasoline station was found to have released petroleum hydrocarbons to the site soils and groundwater. The confirmed PCE release was found to have impacted groundwater, which migrated across the property. Quarterly groundwater monitoring is being conducted in preparation of a corrective action plan.

Phase I and II Investigation

Community Redevelopment Project

Mr. Ashton conducted a Phase I and Phase II investigation of a multi-use commercial property located in Emeryville, California. Property use was as an industrial laundry, possible cleaners, from about 1910 to the mid 1980s. The property use changed to multi-tenant use for vehicle repair, an art foundry, and other commercial and residential uses. A fuel release from a former on site gasoline UST required further characterization. Abandoned USTs were discovered on site, a boiler fuel oil tank and a probable

Donald A. Ashton, PG, REA, CEM

washwater holding tank containing waste oils. A tank removal was conducted following razing of the onsite structures in preparation for site redevelopment as a multi-tenant residential development.

Phase I and II Investigation

Property Development Firm

Mr. Ashton conducted a Phase I and Phase II investigation for a former automobile dealership and auto body shop located in Redwood City. Petroleum hydrocarbon releases occurred from former on site gasoline and waste oil USTs. Environmental investigations conducted over a 12-year period and a groundwater extraction system installed on the site had not remediated the release or floating product to allow the local oversight agency to close the investigation. Due to its desirable location, the property was purchased for redevelopment as a multi-story office building after the previous environmental documents had been evaluated by Clayton (now Bureau Veritas). In order to obtain financing and construct the building during a favorable economic period, an aggressive remedial program was designed to excavate petroleum hydrocarbon impacted soil and purge impacted groundwater, backfill the excavation, and remove waste materials so that the construction schedule could be maintained. Clayton's project was conducted at the end of the rainy season and the fieldwork was conducted in less than three weeks. The construction schedule, including, test pile driving conducted during the field operations, was not compromised. Clayton worked closely with the San Mateo County Health Services Agency to complete the project on an expedited schedule. The agency verbally approved a request for no further remedial action before the excavation was backfilled. The site also received closure by the RWQCB.

Site Characterization

Pesticide Distribution and Formulation Site

Mr. Ashton managed a multi-phased characterization of soil and groundwater impact at an agricultural spray service facility where pesticides were previously formulated in Watsonville, California. The site characterization identified commingled plumes of gasoline, DDT, other pesticides, and carrier oil.

Site Characterization and Remediation

Steel Fabrication Site –Santa Clara, CA

Manager and Client Manager for subsurface investigations that identified and characterized an historic gasoline release from 3 USTs that were removed from an industrial site in 1984. The vertical and horizontal extent of petroleum hydrocarbons was identified in saturated soils. Groundwater monitoring was conducted on private and public property. The responsible party qualified for the state tank cleanup fund. An in-situ oxidation program was modeled and Regenox and ORC Advanced were injected to accelerate remediation of the site. Post remediation groundwater monitoring was conducted with site closure granted by the county and state in early 2009.

Large Commercial Property Assessments

Phase I Assessments with Asbestos and Other Hazardous Materials Sampling

Mr. Ashton conducted several Phase I assessments that included asbestos sampling of large mall properties for a national mall management firm. Assessments were conducted in several cities in California, Missouri, Nevada and Indiana. Additional asbestos samplings were conducted and asbestos abatement specifications were prepared. Asbestos abatement monitoring was also conducted.

Donald A. Ashton, PG, REA, CEM

Employment History

Bureau Veritas North America, Inc. (formerly Clayton Group Services, Inc.) - Pleasanton, California
Senior Geologist, Environmental Services and Remediation
1997 to Present

ATC Associates Inc. – Pleasanton, California
Senior Geologist
1993 to 1997

EMCON Associates – San Jose, California
Project Geologist
1991 to 1993

Diagnostic Engineering, Inc. – Arcadia, California
Evaluator/Geologist
1988 to 1991

Pelagos Corporation – San Diego, California
Marine Geophysical Surveys - Geologist
1984 to 1988

Professional Organizations

Groundwater Resources Association of California

Publications and Presentations

Co-Author - Goss, F., ed., 1989. Environmental Evaluations for Real-Estate Transactions. Published by Government Institutes, Inc., Rockville Maryland, 250 p.

Guest Speaker – Environmental Site Assessments, for Environmental Data Resources Seminar, November 1995, San Francisco, California.

John P. Werfal

Regional Director Health, Safety, and Environmental Services

Education

M.B.A., Finance 1999
California State University, Hayward

B.S., Biology, 1985
University of Wisconsin, Madison

OSHA Hazardous Waste Operations and Emergency Response training and annual refreshers

Total Years of Experience

26+

John Werfal has more than 26 years of experience in environmental consulting, construction management, and project management. He has managed projects involving environmental assessments and compliance, remediation of total petroleum hydrocarbon- and solvent-contaminated sites; underground storage tank closures and site investigations; and investigations involving pesticides and metals.

Mr. Werfal has specific expertise in remedial action planning, including remedial investigations and feasibility studies, and conceptual and detailed project design. He also directs and manages the construction of these projects, including the preparation of construction drawings and bid specifications, budgeting, cost estimating, scheduling, contracting, and agency permitting.

Mr. Werfal has significant experience with many cleanup technologies and understands the feasibility, practicality, and effectiveness of large-scale removal, groundwater extraction, groundwater treatment, vapor treatment, dual phase extraction, soil vapor extraction, air sparge systems, biodegradation, oxidation, barrier systems, hydraulic control, chemical oxidation, and waste stabilization.

Mr. Werfal has planned and executed hundreds of investigations related to soil and groundwater contamination issues and has worked extensively with regulatory agencies throughout California. With a focus on practical solutions, he has comprehensive understanding of state and federal environmental regulations, and particular expertise in client/agency negotiations leading to favorable client results.

Project Experience

Lead Compliance Manager

Bright Source Energy / Ivanpah Solar Power Complex

Lead compliance manager for the California Energy Commission and Bureau of Land Management components of the landmark Ivanpah Solar Power Complex. Provides oversight of compliance and biological monitors for the Bureau of Land Management. Bureau Veritas provides compliance manager services to the Department of Interior, Bureau of Land Management (BLM) for this project. The Ivanpah project is the first large scale solar energy project constructed in California in nearly two decades and will be the largest in the world at its completion in 2012.

John P. Werfal

Project Experience Continued...

Lead Compliance Manager

NextEra Energy Resources / Genesis Solar Energy Project

Lead compliance manager for the California Energy Commission and Bureau of Land Management components of the landmark Ivanpah Solar Power Complex. Bureau Veritas provides compliance manager services to the Department of Interior, Bureau of Land Management (BLM) for this project. The Genesis Solar Energy facility will be a 250-megawatt solar energy plant built, owned, and operated by NextEra™, generating enough electricity to power nearly 88,000 homes.

Health, Safety, and Environmental Compliance Assessments

Diagnostic Equipment Manufacturing Facilities, Various Locations

Mr. Werfal served as program manager for health, safety, and environmental compliance assessments completed at twelve diagnostic equipment manufacturing facilities located in the United States and Europe. Facility audits were conducted to assess compliance with local and national health, safety, and environmental regulations. The findings and conclusions were provided in a matrix/tabular format to facilitate the tracking and closing of identified issues.

Removal Action

Former Mining Site, Juneau, Alaska

Mr. Werfal served as senior project manager for removal actions at the former Alaska Juneau (AJ) Mine. An aboveground storage tank measuring 115 feet in diameter and containing bunker fuel oil which had been abandoned at the site since the AJ Mine was closed in 1944. The tank roof had collapsed in 1971. In 1994, the tank was found to contain a mixture of Bunker C oil, sludge, water, wood chips, contaminated soil, and other debris. Wastes from the tank had leaked and posed a threat to nearby Gastineau Channel. Unsuccessful attempts were made to remove the wastes and remediate the site in 1994 and 2005. At the time of the removal actions, the site contained a mixture of approximately 115,000 gallons of water and 190,000 gallons of thick bunker oil and sludge. The removal actions involved the separation and removal of approximately 115,000 gallons of water from the tank for discharge to the publicly-owned treatment works. The bunker oil, sludge, and solid debris were solidified, transferred into intermodal containers, and shipped by barge to a disposal facility in the State of Washington. Following removal of the wastes, the tank and other remnant features were decontaminated, demolished, and removed from the site. The removal action required significant management of transportation logistics, minimizing impacts to the tourist industry, and difficult access to the project site.

Site Characterization and Remediation

Former Wood Treatment Facility, Alameda, California

Mr. Werfal is the project manager for the investigation and remediation of a former wood treatment facility. The facility operated from the 1920's until the late 1960's and utilized coal tar creosote, pentachlorophenol, and inorganic arsenicals for wood treatment. In response to an Imminent and Substantial Endangerment Determination Order and Remedial Action Order issued by DTSC, a remedial investigation is being completed to delineate the extent of PNAs, VOCs, and metals in the subsurface to support the future development of a remedial action work plan (RAW).

John P. Werfal

Project Experience Continued...

Site Characterization and Remediation

Former Semiconductor Manufacturing Facility, Sunnyvale, California

Mr. Werfal served as senior project manager for the implementation of site investigations and remedial actions in response to a release of tetrachloroethene (PCE) at a former semiconductor manufacturing facility. Initial response actions included expedited site investigation and excavation of impacted soil in the release area. Complete characterization of impacted media was completed using high resolution techniques including utilization of membrane interface probe technology, soil conductivity profiling, and depth-discrete soil, groundwater and soil gas sampling. Mr. Werfal prepared the remedial action plan (RAP) in a manner consistent with the USEPA presumptive remedy approach in order to streamline and expedite the remedy selection process. Remedial actions implemented at the site included targeted excavation, multi-phase extraction, chemical oxidation and enhanced biodegradation technologies. During the conduct of the site characterization and remedial activities, an indoor air sampling program was implemented at an adjacent sensitive receptor. Mr. Werfal also drafted project fact sheets describing site activities and findings for distribution to interested third parties.

Remedial Program Management

Multiple Petroleum Bulk Storage Facilities: Mission Bay Redevelopment, San Francisco

Mr. Werfal served as project manager for a group of major oil companies that were engaged in the investigation, negotiation, and remediation of historical petroleum bulk plants and an extensive network of underground pipelines. The project involved remedial investigations, feasibility studies, interim remedial activities, and remedial action plans for five operable units covering approximately 12 acres and several city streets in the Mission Bay redevelopment area, near the San Francisco Bay. Working with the property owners, the city and county of San Francisco, and the Regional Water Quality Control Board (RWQCB), Mr. Werfal managed the multimillion-dollar remediation project through several major milestones, including: negotiation, design, cost estimating, permitting, contracting, and construction. Activities completed at the Site included: excavation of approximately 200,000 tons of soil impacted with metals, SVOCs, VOCs, and petroleum hydrocarbons; removal of 23,000 linear feet of abandoned pipelines; installation and operation of dewatering and treatment systems; removal of approximately 7,000 gallons of separate phase hydrocarbons; site restoration; and the installation of 600 linear feet of separate phase hydrocarbon collection galleries.

Remedial Investigation and Feasibility Studies

Agricultural Chemical Industry, Bakersfield, California

Mr. Werfal was the project manager for the implementation of remedial investigations, feasibility studies, and health risk assessments at a former agricultural chemical facility in Bakersfield, California. Pursuant to a Voluntary Consent Agreement with the California Department of Toxic Substances Control (DTSC), Mr. Werfal managed a pilot study to remediate toxaphene and other organochlorine pesticides in site soils by the reductive dechlorination process. Concurrently, a remedial investigation was completed to address data gaps identified by DTSC at the site. The findings from the remedial investigation and pilot study was used to develop a feasibility study and recommended remedial alternative for the site that mitigates and minimizes threats to, and provides adequate protection of, public health and welfare and the environment.

John P. Werfal

Project Experience Continued...

Service Station Investigation and Remediation

Petroleum Industry

Mr. Werfal has designed, implemented and reported soil and groundwater investigations at over 200 retail service stations and bulk plants for several major oil companies. He has managed and acted as sole client contact for the projects, and served as a liaison between clients and regulatory agencies. Mr. Werfal developed remedial strategies at many sites, frequently developing risk-based closure approaches.

Superfund Site Remediation

Superfund Site – Former Petroleum Recycling Facility

Mr. Werfal served as project manager for implementation of removal activities at an abandoned waste oil recycling facility in Patterson, California. The site contained about 5.5 million gallons of hazardous waste and hazardous waste water, tank-bottoms sludge, and waste oil, as well as 1,200 drums of used oil filters and miscellaneous chemicals. Wastewater and sludge were found to be Resource Conservation and Recovery Act (RCRA) hazardous waste and to contain dioxin compounds. Initiated under a CERCLA Unilateral Order issued by the EPA, the work was funded through a steering committee representing 21 potentially responsible parties (PRPs) cooperating to fund the remediation. Mr. Werfal developed bid specifications and budgets. Working with the PRPs, Mr. Werfal directed the investigation of waste materials, all waste removal activities, and the decommissioning and demolition of site facilities. Mr. Werfal also developed treatability analyses, value engineering, work plans, and other project documents. The largest removal action ever ordered by the EPA in Region IX, the project was completed with final agency sign off in August 2000. Region IX officials have publicly praised this project, calling it a "model effort for Superfund removal projects."

Site Characterization

Manufacturing Facility

During redevelopment activities at a former battery manufacturing facility in San Francisco, California, a crawlspace was discovered beneath the first floor of the building. The crawlspace was an unpaved space that was generally covered with construction debris, crystalline chemical residues, and residual debris from on-site operations, and three subsurface features which appeared to be remnants of a manufacturing process. Soil samples collected from the crawlspace surface contained lead concentrations up to 70,000 ppm. Following initial site stabilization efforts, which included the removal of the construction debris, crystalline chemical residues, and near surface soil, Mr. Werfal directed the subsurface investigation at the site. The findings of the investigation established that, elevated lead concentrations were a characteristic of the 1906 earthquake debris underlying the site.

APPENDIX B

SOURCES AND REFERENCES

SOURCES AND REFERENCES

SOURCES:

Agency and division/source:	Owner
Name/title of representative:	Mr. Frank Nicoletti
Location	Brentwood, CA
Telephone number:	925-207-0681

Agency and division/source:	Owner
Name/title of representative:	Mr. Dan Turcotte
Location	Florida
Telephone number:	925-550-1792

Agency and division/source:	Ridge Water Real Estate Services
Name/title of representative:	Emil Geddes, Realtor
Location	Brentwood, California
Telephone number:	925-207-3061

Agency and division/source:	Diocese of Oakland
Name/title of representative:	James McCann, Facilities Manager
Location of Agency:	Oakland, CA
Agency Telephone Number:	510-267-8308

Agency and division/source:	Contra Costa County Building Inspection Department
Name/title of representative:	Ms. Barbara Morris
Location	Martinez, CA
Telephone number:	925-692-2513

Agency and division/source:	East Contra Costa County Fire Prevention Bureau
Name/title of representative:	Ms. Patricia Hubbard
Location of Agency:	Brentwood, California
Agency Telephone Number:	925-240-2136

Agency and division/source:	Contra Costa County Department of Environmental Health
Name/title of representative:	Tim Ellsworth
Location of Agency:	Martinez, California
Agency Telephone Number:	925-646-5225

SOURCES AND REFERENCES

Agency and division/source:	City of Brentwood – Community Development
Name/title of representative:	Mr. Tim Nielson, Assistant Planner
Location of Agency:	Brentwood, California
Agency Telephone Number:	925-809-7930

Agency and division/source:	Regional Water Quality Control Board
Name/title of representative:	Ms. Melinda Wong – Records Clerk
Location of Agency:	Oakland, California
Agency Telephone Number:	510-622-2430

Agency and division/source:	California Department of Toxic Substances Control
Name/title of representative:	Records Clerk
Location of Agency:	Berkeley, California
Agency Telephone Number:	510-540-2122

REFERENCES:

Name of publication:	EDR Radius Map with Geocheck
Author of publication:	Environmental Data Resources, Inc. (EDR) – Inquiry: 3628074.2r
Date of publication:	June 6, 2013

Name of publication:	EDR Topographic Map Report
Author of publication:	Environmental Data Resources, Inc. (EDR)
Date of publication:	June 6, 2013

Name of publication:	EDR Sanborn®Map Report
Author of publication:	Environmental Data Resources, Inc. (EDR)
Date of publication:	June 6, 2013

Name of publication:	EDR Aerial Photo Report
Author of publication:	Environmental Data Resources, Inc. (EDR)
Date of publication:	June 10, 2013

SOURCES AND REFERENCES

Name of publication:	EDR City Directory Image Report
Author of publication:	Environmental Data Resources, Inc. (EDR) Inquiry: 3628074.6
Date of publication:	June 25, 2013
Name of publication:	The NETR Environmental Lien Search Report
Author of publication:	Project No.: L13-01337, L13-01338, L13-01339
Date of publication:	June 26, 2013

APPENDIX C

USER QUESTIONNAIRE

USER QUESTIONNAIRE
ASTM DESIGNATION: E 1527-05 (PHASE I ESA)
To be returned to Bureau Veritas

Providing the following information, as available, to Bureau Veritas North America, Inc.is one of the requirements to qualify for "landowner liability protections" under the CERCLA. Questions are to be answered in good faith and to the extent of your knowledge. Please explain your answers (provide additional sheets if necessary); literal "yes" or "no" answers may not be adequate. Missing or incomplete information could result in a determination that "all appropriate inquiry" (AAI) has not been made.

GENERAL INFORMATION

User(s):
(i.e., parties relying on ESA)

Roman Catholic Bishop of OAKLAND

Subject Property Identification:
(e.g., address(s), parcel(s))

7560 Lone Tree Way, Brentwood
7650 Lone Tree Way, "
7590 Lone Tree Way, "

Subject Property Type: AGRICULTURAL LAND
(e.g., uses, improvements)

Transaction Type: PURCHASE
(e.g., sale, purchase, development)

Reason for ESA: BUSINESS RISK
(e.g., financing, AAI, business risk)

Ridgewater Real Estate, 9000 Brentwood Blvd.

Subject Property Access Contact(s):

Nicoletti Trusts

Daniel Turcotte

Subject Property Owner(s):

Owner(s) Contact Information:

Is the owner(s) aware of ESA? Yes No

USER QUESTIONNAIRE
ASTM DESIGNATION: E 1527-05 (PHASE I ESA)
To be returned to Bureau Veritas

REQUIRED INFORMATION

1. Environmental cleanup liens that are filed or recorded against the subject property (40 CFR 312.25).

Are you aware of any environmental cleanup liens against the subject property that are filed or recorded under federal, tribal, state or local law?

No

2. Activity and land use limitations (AULs) that are in place on the subject property or that have been filed or recorded in a registry (40 CFR 312.26).

Are you aware of any AULs, such as engineering controls, land use restrictions, or institutional controls that are in place at the subject property and/or have been filed or recorded in a registry under federal, tribal, state or local law?

No

3. Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).

As the user of this ESA do you have any specialized knowledge or experience related to the subject property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the subject property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

None

USER QUESTIONNAIRE
ASTM DESIGNATION: E 1527-05 (PHASE I ESA)
To be returned to Bureau Veritas

4. Relationship of the purchase price to the fair market value of the subject property if it were not contaminated (40 CFR 312.29).

Does the purchase price being paid for subject property reasonably reflect the fair market value of the subject property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the subject property?

yes

5. Commonly known or reasonably ascertainable information about the subject property (40 CFR 312.30).

Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user:

(a.) Do you know the past uses of the subject property? Agriculture

(b.) Do you know of specific chemicals that are present or once were present at the subject property? No

(c.) Do you know of spills or other chemical releases that have taken place at the subject property? No

(d.) Do you know of any environmental cleanups that have taken place at the subject property? No

6. The degree of obviousness of the presence of likely presence of contamination at the subject property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).

As the user of this ESA, based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the property?

None

USER QUESTIONNAIRE
ASTM DESIGNATION: E 1527-05 (PHASE I ESA)
To be returned to Bureau Veritas

USER SIGNATURE

You understand that the information presented herein is an integral part of the Phase I ESA process, and that Bureau Veritas will rely on this information in the development of the Phase I ESA report.

Completed By (signature): James H. McCann

Print/Type Name: James H. McCann

Title: Property Manager

Company: Diocese of Oakland

Date: 6/17/13

APPENDIX D

AERIAL PHOTOGRAPHS

Agricultural Properties
7590 Lone Tree Way
Brentwood, CA 94513

Inquiry Number: 3628074.5
June 10, 2013

The EDR Aerial Photo Decade Package

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Date EDR Searched Historical Sources:

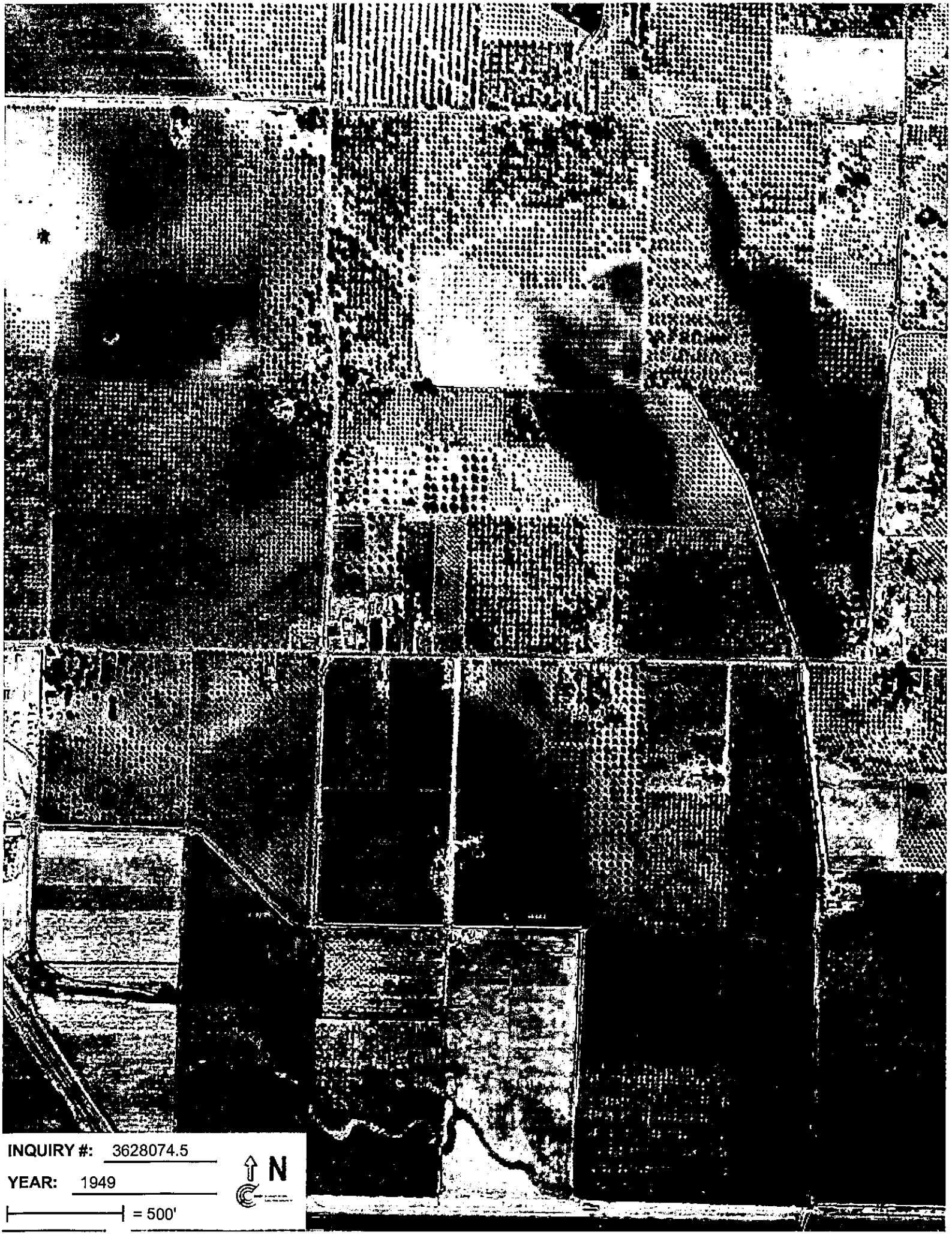
Aerial Photography June 10, 2013

Target Property:

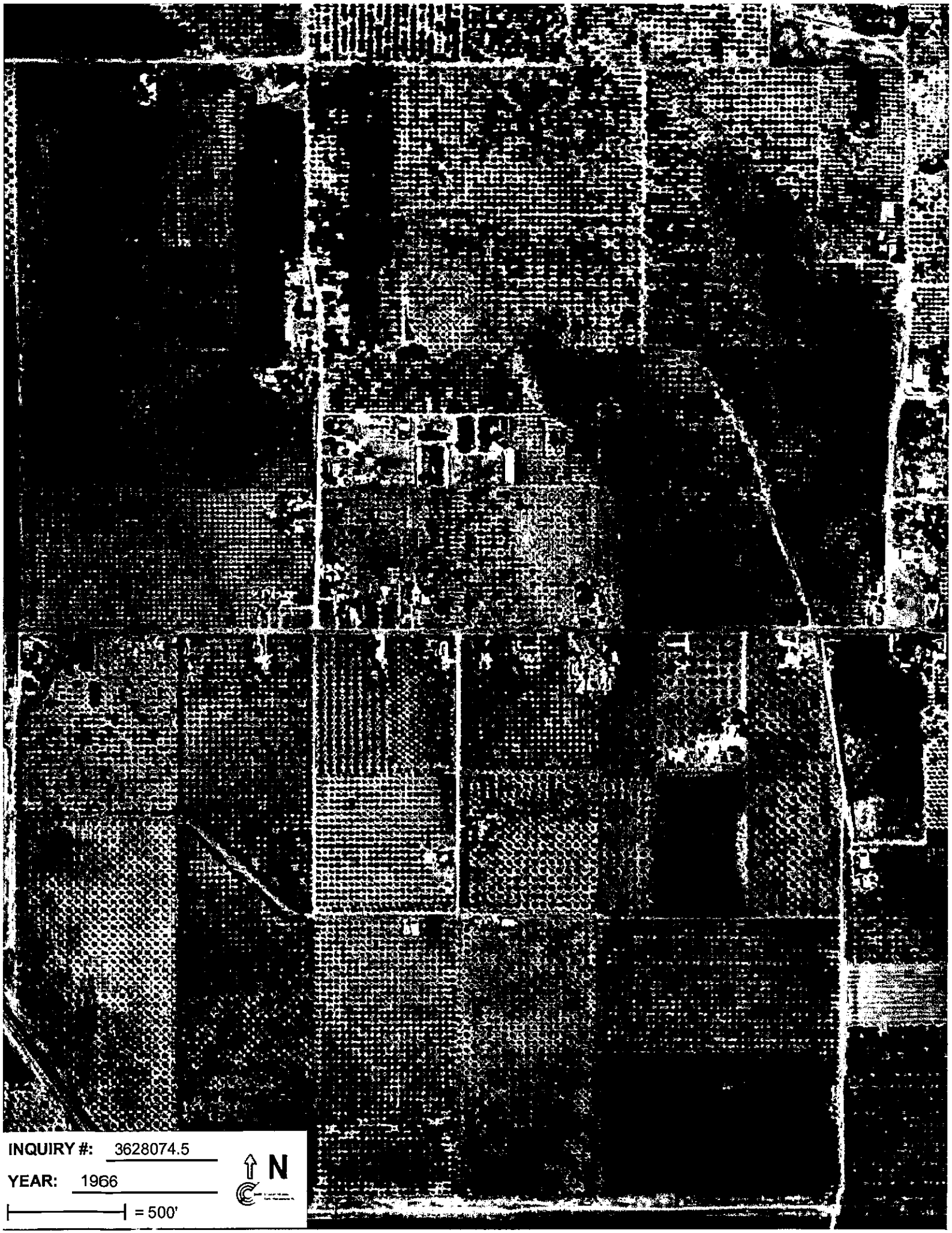
7590 Lone Tree Way
Brentwood, CA 94513

Year	*Scale*	*Details*	*Source*
1939	Aerial Photograph. Scale: 1"=500'	Flight Year: 1939	Fairchild
1949	Aerial Photograph. Scale: 1"=500'	Flight Year: 1949	USGS
1959	Aerial Photograph. Scale: 1"=500'	Flight Year: 1959	Cartwright
1966	Aerial Photograph. Scale: 1"=500'	Flight Year: 1966	Cartwright
1979	Aerial Photograph. Scale: 1"=500'	Flight Year: 1979	WAC
1984	Aerial Photograph. Scale: 1"=500'	Flight Year: 1984	WAC
1993	Aerial Photograph. Scale: 1"=500'	/DOQQ - acquisition dates: 1993	EDR
1999	Aerial Photograph. Scale: 1"=500'	Flight Year: 1999	WAC
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	EDR
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	EDR
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	EDR
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	EDR
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	EDR

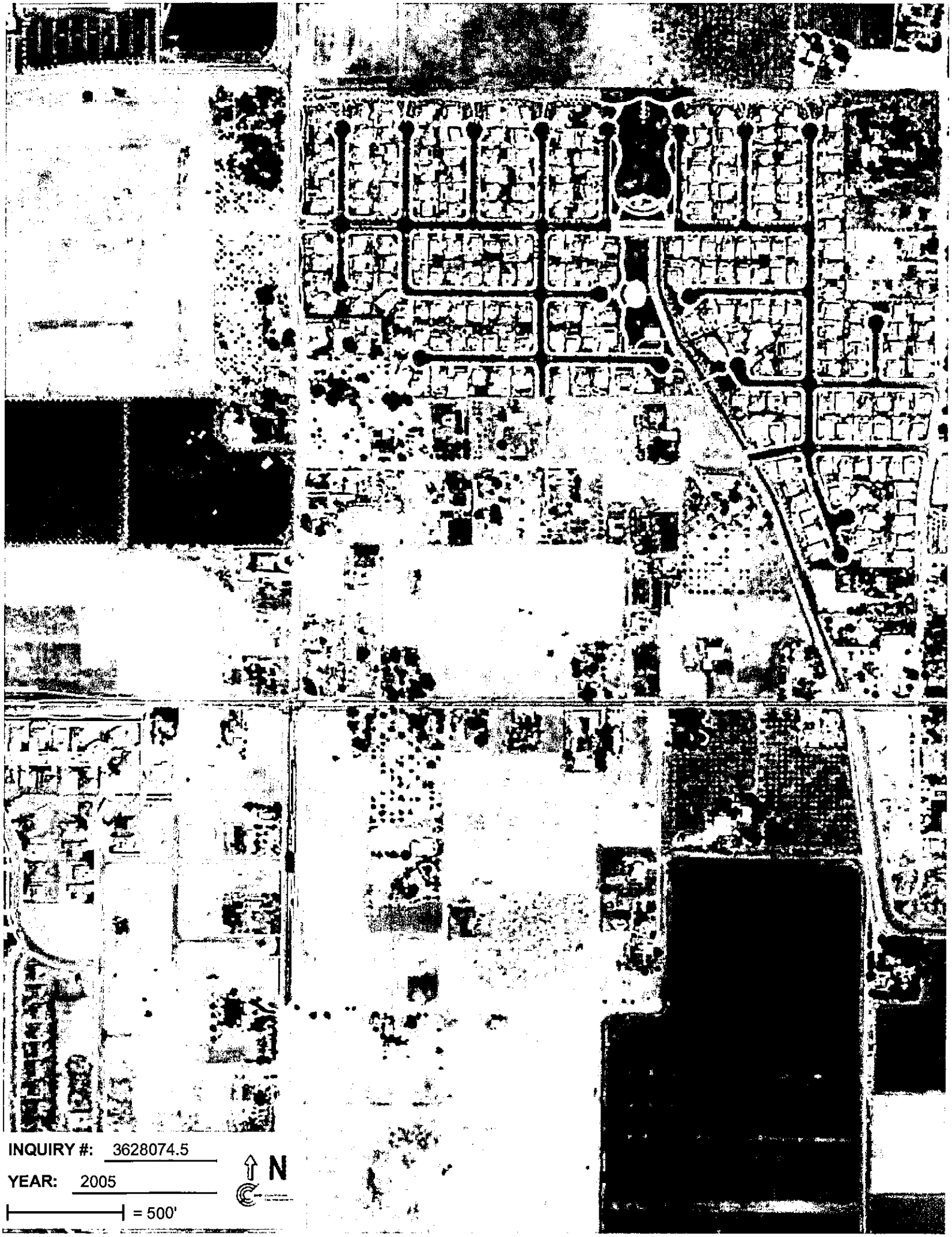
INQUIRY #: 3628074.5
YEAR: 1939
= 500'
N


INQUIRY #: 3628074.5
YEAR: 1949
= 500'
N

INQUIRY #: 3628074.5
YEAR: 1959
= 500'
N


INQUIRY #: 3628074.5
YEAR: 1966
= 500'
N

INQUIRY #: 3628074.5
YEAR: 1999
= 500'
N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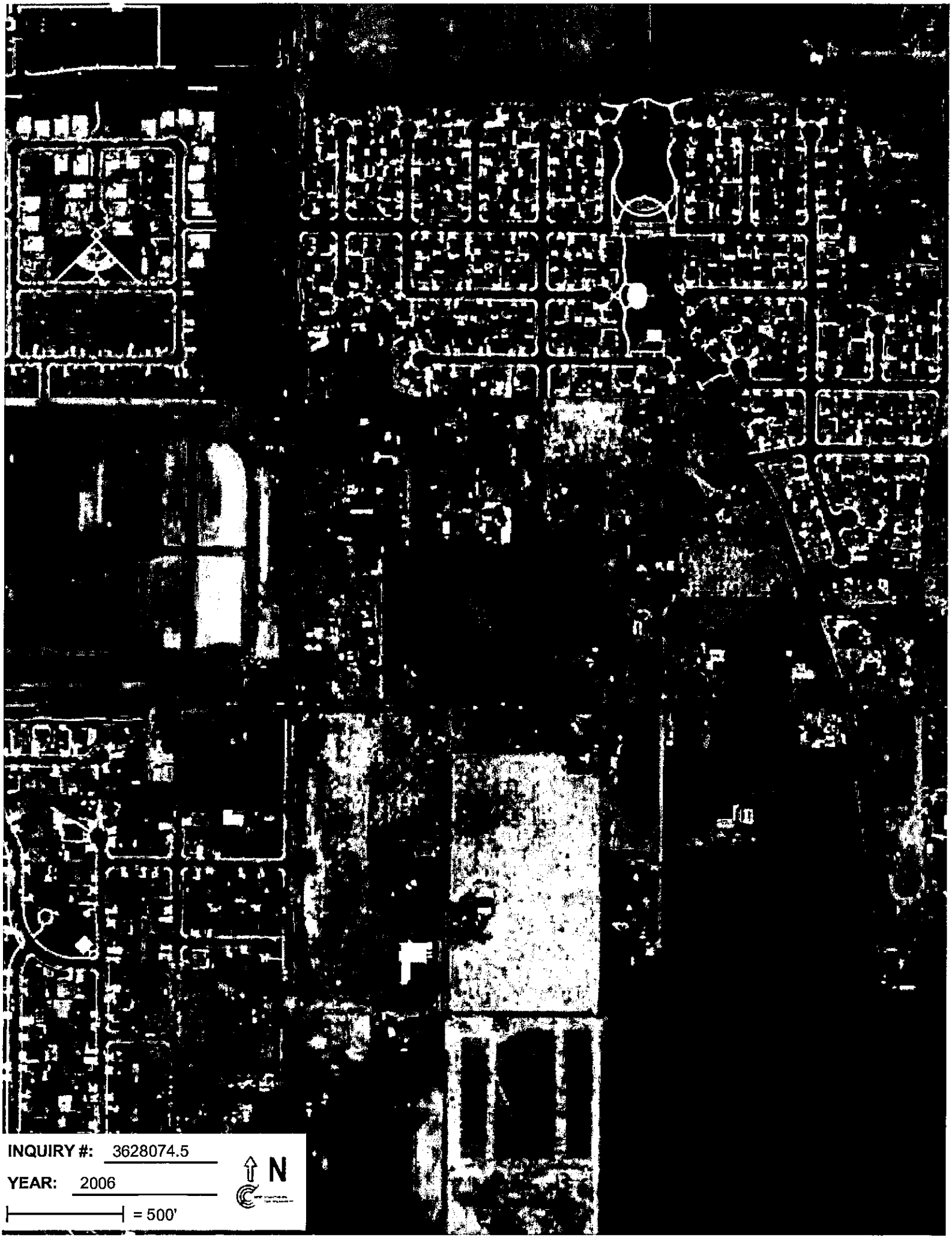
YEAR: 2005
= 500'
N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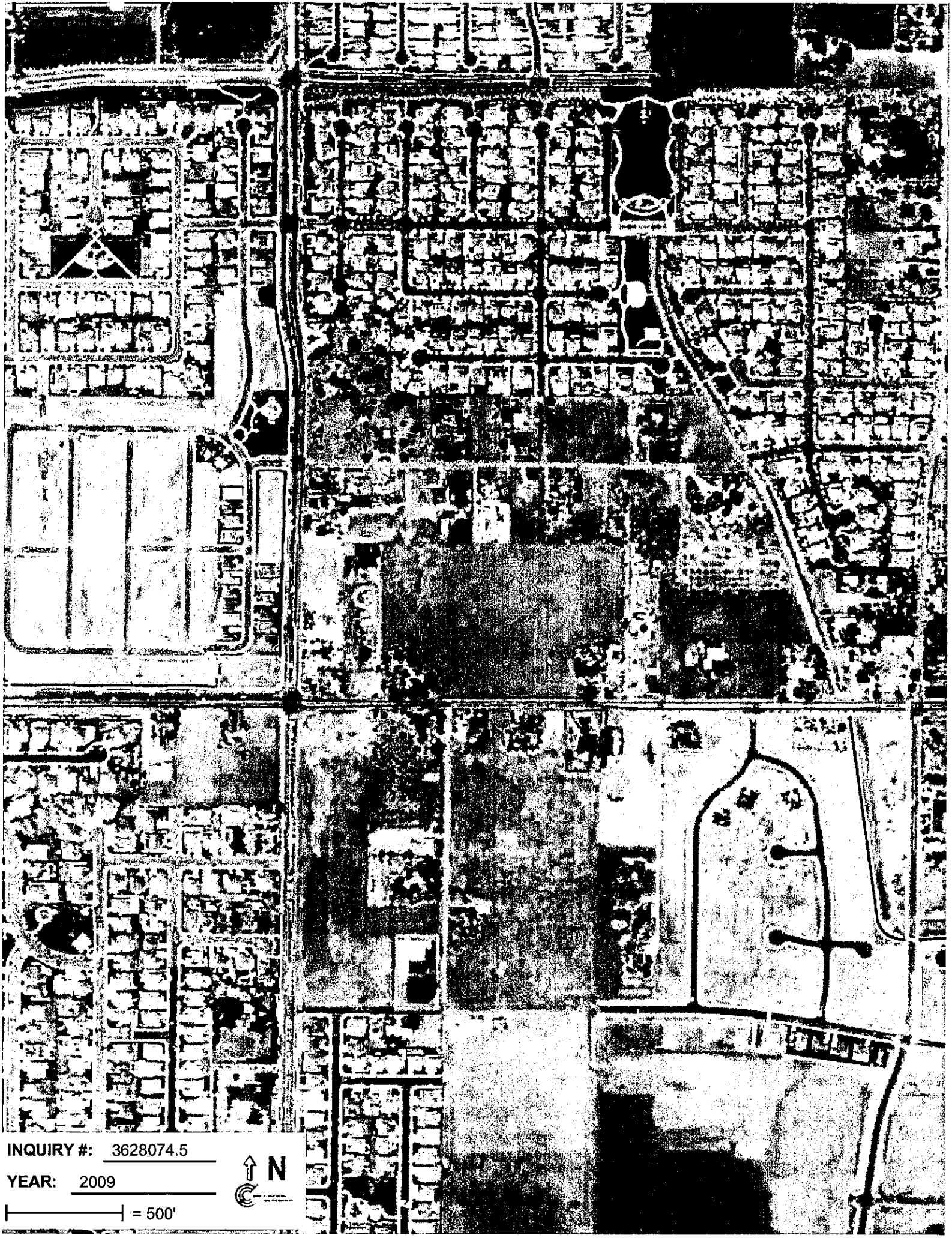
YEAR: 2006
= 500'
N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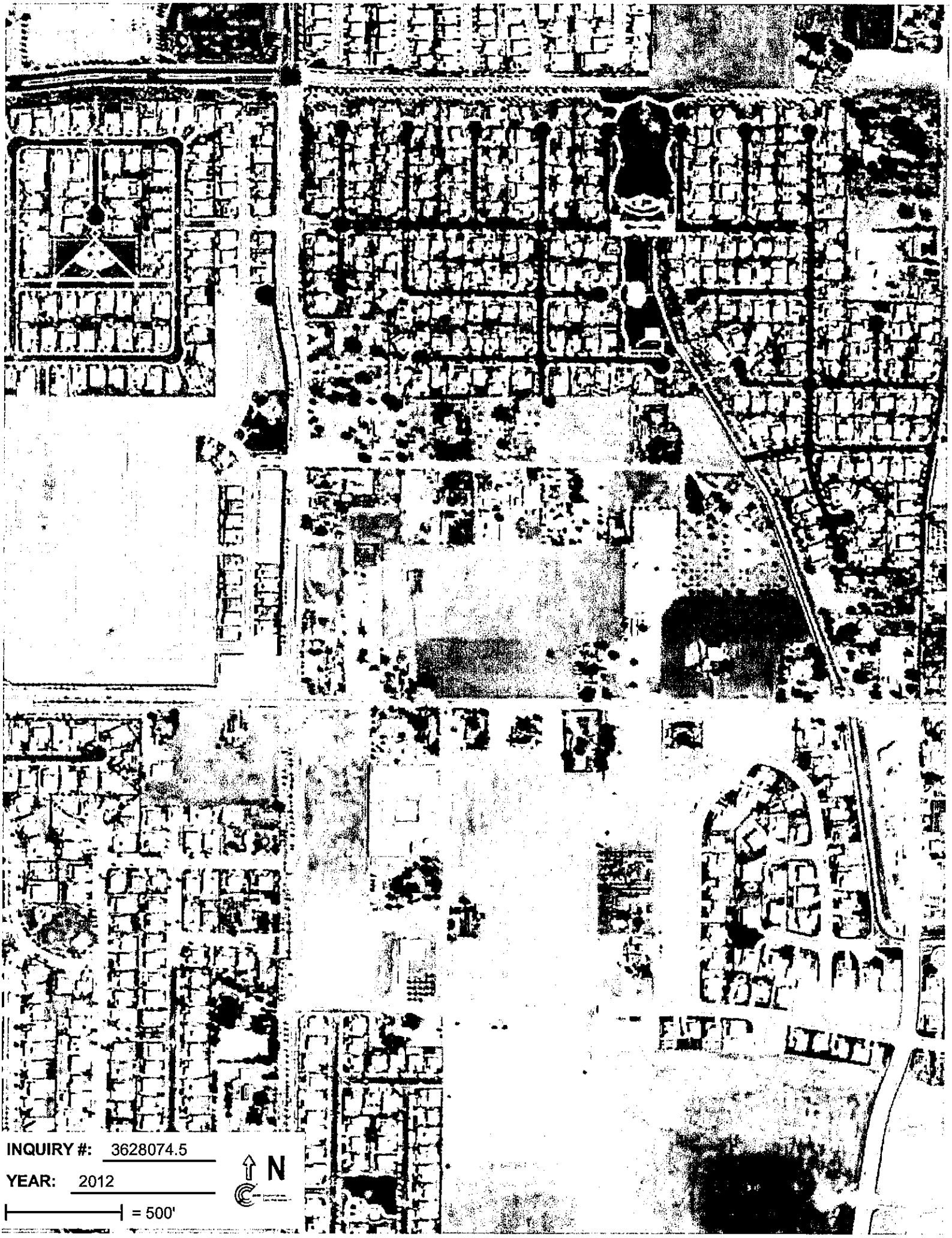
YEAR: 2009
= 500'
N

INQUIRY #: 3628074.5
YEAR: 2010
= 500'
N


INQUIRY #: 3628074.5
YEAR: 2012
= 500'
N

APPENDIX E

DATABASE REPORT

Agricultural Properties
7590 Lone Tree Way
Brentwood, CA 94513

Inquiry Number: 03628074.2r
June 06, 2013

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
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 (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

7590 LONE TREE WAY
BRENTWOOD, CA 94513

COORDINATES

Latitude (North):	37.9625000 - 37° 57' 45.00"
Longitude (West):	121.7115000 - 121° 42' 41.40"
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	613189.6
UTM Y (Meters):	4202231.5
Elevation:	78 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	37121-H6 BRENTWOOD, CA
Most Recent Revision:	1978

AERIAL PHOTOGRAPHY IN THIS REPORT

Photo Year:	2012
Source:	USDA

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

Federal NPL site list

NPL..... National Priority List

EXECUTIVE SUMMARY

Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls
LUCIS..... Land Use Control Information System

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

LUST..... Geotracker's Leaking Underground Fuel Tank Report
SLIC..... Statewide SLIC Cases
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

UST..... Active UST Facilities

AST..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST..... Underground Storage Tanks on Indian Land
FEMA UST..... Underground Storage Tank Listing

State and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Program Properties
INDIAN VCP..... Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

ODI..... Open Dump Inventory
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
WMUDS/SWAT..... Waste Management Unit Database
HAULERS..... Registered Waste Tire Haulers Listing
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL..... Clandestine Drug Labs
HIST Cal-Sites..... Historical Calsites Database
Toxic Pits..... Toxic Pits Cleanup Act Sites
CDL..... Clandestine Drug Labs
US HIST CDL..... National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

HIST UST..... Hazardous Substance Storage Container Database

Local Land Records

LIENS 2..... CERCLA Lien Information
LIENS..... Environmental Liens Listing
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

DOT OPS..... Incident and Accident Data
DOD..... Department of Defense Sites
FUDS..... Formerly Used Defense Sites

EXECUTIVE SUMMARY

CONSENT..... Superfund (CERCLA) Consent Decrees
ROD..... Records Of Decision
UMTRA..... Uranium Mill Tailings Sites
US MINES..... Mines Master Index File
TRIS..... Toxic Chemical Release Inventory System
TSCA..... Toxic Substances Control Act
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
SSTS..... Section 7 Tracking Systems
ICIS..... Integrated Compliance Information System
PADS..... PCB Activity Database System
MLTS..... Material Licensing Tracking System
RADINFO..... Radiation Information Database
FINDS..... Facility Index System/Facility Registry System
RAATS..... RCRA Administrative Action Tracking System
RMP..... Risk Management Plans
CA BOND EXP. PLAN..... Bond Expenditure Plan
UIC..... UIC Listing
NPDES..... NPDES Permits Listing
Cortese..... "Cortese" Hazardous Waste & Substances Sites List
HIST CORTESE..... Hazardous Waste & Substance Site List
CUPA Listings..... CUPA Resources List
Notify 65..... Proposition 65 Records
DRYCLEANERS..... Cleaner Facilities
WIP..... Well Investigation Program Case List
ENF..... Enforcement Action Listing
HAZNET..... Facility and Manifest Data
EMI..... Emissions Inventory Data
INDIAN RESERV..... Indian Reservations
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
MWMP..... Medical Waste Management Program Listing
COAL ASH DOE..... Steam-Electric Plant Operation Data
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List
HWT..... Registered Hazardous Waste Transporter Database
HWP..... EnviroStor Permitted Facilities Listing
Financial Assurance..... Financial Assurance Information Listing
LEAD SMELTERS..... Lead Smelter Sites
2020 COR ACTION..... 2020 Corrective Action Program List
US AIRS..... Aerometric Information Retrieval System Facility Subsystem
PRP..... Potentially Responsible Parties
WDS..... Waste Discharge System
EPA WATCH LIST..... EPA WATCH LIST
US FIN ASSUR..... Financial Assurance Information
PCB TRANSFORMER..... PCB Transformer Registration Database
PROC..... Certified Processors Database

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants
EDR US Hist Cleaners..... EDR Exclusive Historic Dry Cleaners

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

EXECUTIVE SUMMARY

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

State- and tribal - equivalent CERCLIS

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 03/13/2013 has revealed that there are 3 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DUTRA, LEROY Status: Inactive - Action Required	***SMITH LN***	***S 1/8 - 1/4 (0.226 mi.)***	***4***	***10***
LA PALOMA Status: No Further Action	***6651 LONE TREE WAY***	***W 1/2 - 1 (0.911 mi.)***	***7***	***20***

Lower Elevation	Address	Direction / Distance	Map ID	Page
ZOCCHI ELEMENTARY SCHOOL Status: No Further Action	***BROWNSTONE ROAD/ANDERSON***	***SSE 1/2 - 1 (0.610 mi.)***	***6***	***16***

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: A listing of recycling facilities in California.

A review of the SWRCY list, as provided by EDR, and dated 03/18/2013 has revealed that there is 1 SWRCY site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
THE SUN RECYCLING CENTER	7021 LONE TREE WAY	W 1/4 - 1/2 (0.476 mi.)	5	16

EXECUTIVE SUMMARY

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 03/13/2013 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
DUTRA, LEROY	*SMITH LN*	*S 1/8 - 1/4 (0.226 mi.)*	*4*	*10*

Local Lists of Registered Storage Tanks

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there is 1 CA FID UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DUTRA, LEROY	*SMITH LN*	*S 1/8 - 1/4 (0.226 mi.)*	*4*	*10*

SWEEPS UST: 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.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there is 1 SWEEPS UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DUTRA, LEROY	*SMITH LN*	*S 1/8 - 1/4 (0.226 mi.)*	*4*	*10*

Other Ascertainable Records

RCRA NonGen / NLR: 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.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 02/12/2013 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
GEORGE D DRAKE	*1091 BEAU AVE*	*WNW 0 - 1/8 (0.078 mi.)*	*2*	*8*

EXECUTIVE SUMMARY

CONTRA COSTA CO. SITE LIST: Lists includes sites from the Underground Tank Program, Hazardous Waste Generator Program & Business Plan 12185 Program

A review of the CONTRA COSTA CO. SITE LIST list, as provided by EDR, and dated 04/09/2013 has revealed that there are 2 CONTRA COSTA CO. SITE LIST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BLUMEN, BETTY J	2801 O'HARA AVE	NW 0 - 1/8 (0.075 mi.)	1	8
DUTRA, LEROY	***SMITH LN***	***S 1/8 - 1/4 (0.226 mi.)***	***4***	***10***

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR US Hist Auto Stat: 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.

A review of the EDR US Hist Auto Stat list, as provided by EDR, has revealed that there is 1 EDR US Hist Auto Stat site within approximately 0.25 miles of the target property.

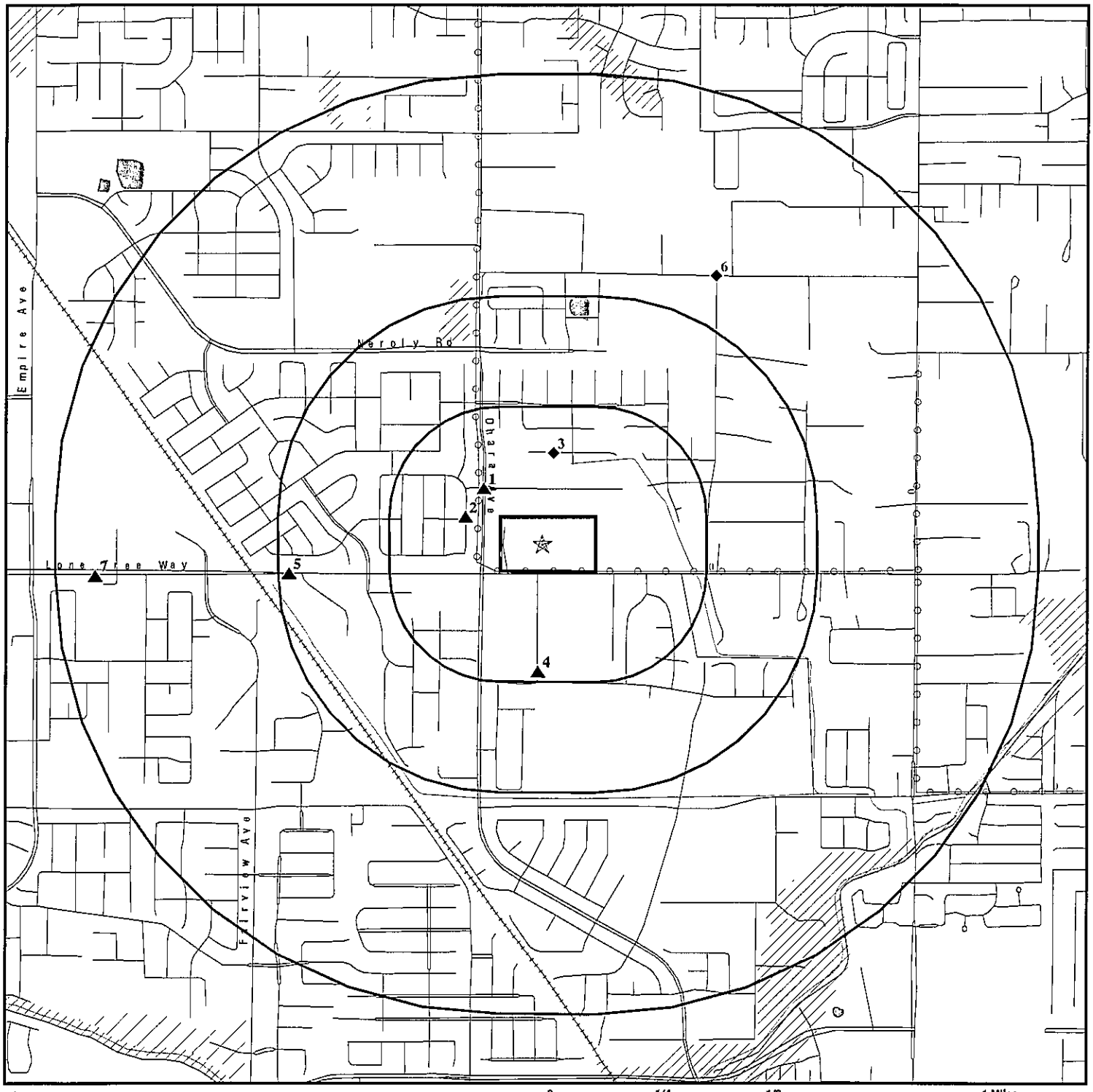
Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	742 BUCKEYE CT	N 1/8 - 1/4 (0.145 mi.)	3	9

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 40 records.

Site Name	Database(s)
BLUE GOOSE PROPERTIES	LUST,HIST CORTESE
NORMAN'S BRENTWOOD NURSERY	FID,SWEEPS UST,SL CONTRA COSTA
SAVERS GAS	FID,SWEEPS UST
BILL BRANDT FORD, INC.	FID,SL CONTRA COSTA,SWEEPS UST
DELTA FENCE CO., INC.	SWEEPS UST
MANGINI BROS	HIST UST,SWEEPS UST
LADD, L. JORDAN	SWEEPS UST
BLUE GOOSE PROPERTIES	SWEEPS UST
MELLO'S SHEET METAL	SWEEPS UST
OAKLEY BUILDERS SUPPLY	SWEEPS UST
VETERANS ADMINISTRATION DISPOSAL S	LF
FOOD & LIQUOR #86	LUST
MANGINI BROS	SL CONTRA COSTA,UST
LADD, L. JORDAN	SL CONTRA COSTA,UST
7-ELEVEN STORE #32787	UST
L. JORDAN LADD	HIST UST
LEROY DUTRA	HIST UST
CLEMONS, GEORGE EARL	FID,SL CONTRA COSTA
VENTURINI LEASE SITE (BRENTWOOD OI	SLIC
OXY USA INC. (BRENTWOOD OIL & GAS	SLIC
BETTENCOURT, EVELYN T	SL CONTRA COSTA
SOITE, CATARINA	SL CONTRA COSTA
KARAGLANIS, FRANK P	SL CONTRA COSTA
BRANSCUM, LUTHER W	SL CONTRA COSTA
HARDIN, CHARLES W	SL CONTRA COSTA
MAGGIORA, MELVIN	SL CONTRA COSTA
RIPPEE RANCH	SL CONTRA COSTA
VINTAGE PRODUCTION/CESA 1 NATURAL	SL CONTRA COSTA
AT&T MOBILITY/BRENTWOOD (45459)	SL CONTRA COSTA
MICHAELS STORE #5706	SL CONTRA COSTA
CARPENTER, CAROLYN	SL CONTRA COSTA
PREWETT RANCH	SL CONTRA COSTA
LUCCHESI, ROY & RAPLH	SL CONTRA COSTA
STONEBARGER RANCH	SL CONTRA COSTA
MCKINNEY, EMILE E	SL CONTRA COSTA
BALDOCCHI, EVO	SL CONTRA COSTA
WESTERN CONT'L HART #1	SL CONTRA COSTA
SHOSHONE OIL CORPORATION	SL CONTRA COSTA
COUNTRY INVESTORS	SL CONTRA COSTA
WESTERN CONT'L NGC-KYSH-1	SL CONTRA COSTA

OVERVIEW MAP - 03628074.2r



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

0 1/4 1/2 1 Miles

Indian Reservations BIA

Power transmission lines

Oil & Gas pipelines from USGS

100-year flood zone

500-year flood zone

National Wetland Inventory

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: Agricultural Properties ADDRESS: 7590 Lone Tree Way Brentwood CA 94513 LAT/LONG: 37.9625 / 121.7115	CLIENT: Bureau Veritas North America, Inc. CONTACT: Don Ashton INQUIRY #: 03628074.2r DATE: June 06, 2013 2:03 pm

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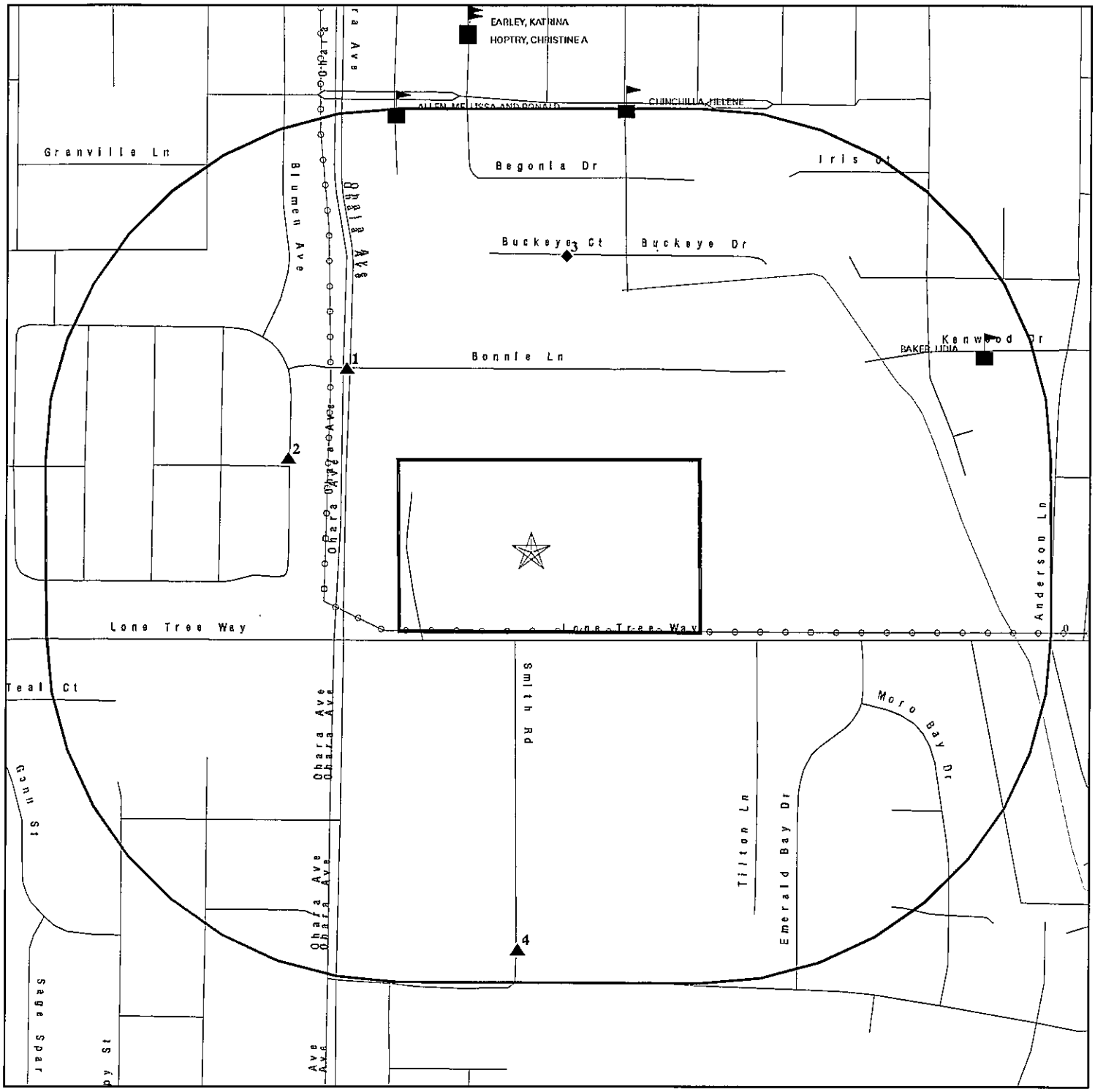
DETAIL MAP - 03628074.2r



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

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Power transmission lines

Oil & Gas pipelines from USGS

100-year flood zone

500-year flood zone

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: Agricultural Properties ADDRESS: 7590 Lone Tree Way Brentwood CA 94513 LAT/LONG: 37.9625 / 121.7115	CLIENT: Bureau Veritas North America, Inc. CONTACT: Don Ashton INQUIRY #: 03628074.2r DATE: June 06, 2013 2:05 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								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	1	0	2	NR	3
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	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
SLIC	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
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
FEMA UST	0.250		0	0	NR	NR	NR	0
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
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	1	NR	NR	1
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	1	NR	NR	NR	1
Toxic Pits	1.000		0	0	0	0	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST	0.250		0	1	NR	NR	NR	1
HIST UST	0.250		0	0	NR	NR	NR	0
SWEEPS UST	0.250		0	1	NR	NR	NR	1
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
LIENS	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	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
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		1	0	NR	NR	NR	1
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	0	0	NR	0
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	0	0	0	NR	0
ROD	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
Cortese	0.500		0	0	0	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
CONTRA COSTA CO. SITE LIST	0.250		1	1	NR	NR	NR	2
CUPA Listings	0.250		0	0	NR	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
HAZNET	TP		NR	NR	NR	NR	NR	0
EMI	TP		NR	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
HWT	0.250		0	0	NR	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	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
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250		0	1	NR	NR	NR	1
EDR US Hist Cleaners	0.250		0	0	NR	NR	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1 NW < 1/8 0.075 mi. 396 ft. | **BLUMEN, BETTY J**
2801 O'HARA AVE
OAKLEY, CA 94561 | **CONTRA COSTA CO. SITE LIST** | **S103172298**
N/A

Relative: Higher
Actual: 81 ft.

CONTRA COSTA CO. SITE LIST:

Facility ID:	7000747773
Billing Status:	INACTIVE, NON-BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	UNDERGROUND STORAGE TANK SITE
Region:	CONTRA COSTA

---

2 WNW < 1/8 0.078 mi. 411 ft. | **GEORGE D DRAKE**
1091 BEAU AVE
BRENTWOOD, CA 94513 | **RCRA NonGen / NLR**
FINDS | **1004677243**
CAR000094896

Relative: Higher
Actual: 81 ft.

RCRA NonGen / NLR:

Date form received by agency:	10/24/2011
Facility name:	GEORGE D DRAKE
Facility address:	1091 BEAU AVE BRENTWOOD, CA 94513
EPA ID:	CAR000094896
Contact:	GEORGE D DRAKE
Contact address:	1091 BEAU AVE BRENTWOOD, CA 94513
Contact country:	US
Contact telephone:	415-756-7636
Contact email:	ENDDUMPDOG@AOL.COM
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	RUBEN BOLIS
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1990
Owner/Op end date:	Not reported

Owner/operator name:	PIER 96
Owner/operator address:	PIER ONE EMBARCADERO SAN FRANCISCO PORT, CA 94111
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Other
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1990
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No

GEORGE D DRAKE (Continued) **1004677243**

Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency: 10/24/2011
Facility name: GEORGE D DRAKE
Classification: Not a generator, verified

Date form received by agency: 05/22/2006
Facility name: GEORGE D DRAKE
Site name: D AND W TRANSPORT LLC
Classification: Not a generator, verified

Date form received by agency: 10/10/2002
Facility name: GEORGE D DRAKE
Site name: D AND W TRUCKING
Classification: Not a generator, verified

Violation Status: No violations found

FINDS:

Registry ID: 110012228721

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

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3 **EDR US Hist Auto Stat** **1015622698**
North **742 BUCKEYE CT** **N/A**
1/8-1/4 **BRENTWOOD, CA 94513**
0.145 mi.
767 ft.

Relative:
Lower

Actual:
77 ft.

EDR Historical Auto Stations:

Name: AUTOMASTER OF ANTIOCH
Year: 2006
Address: 742 BUCKEYE CT

Name: AUTOMASTER OF ANTIOCH
Year: 2007
Address: 742 BUCKEYE CT

Name: AUTOMASTER OF ANTIOCH

(Continued) **1015622698**

Year: 2008
Address: 742 BUCKEYE CT

4
South
1/8-1/4
0.226 mi.
1195 ft.

DUTRA, LEROY
SMITH LN
BRENTWOOD, CA 94513

SCH **S101580840**
CA FID UST **N/A**
CONTRA COSTA CO. SITE LIST
SWEEPS UST
ENVIROSTOR

Relative:
Higher

Actual:
81 ft.

SCH:

Facility ID:	60000916
Site Type:	School Cleanup
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	18.93
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Jose Luevano
Supervisor:	Juan Koponen
Division Branch:	Northern California Schools & Santa Susana
Site Code:	204222
Assembly:	11
Senate:	07
Special Program Status:	EPA - Target Site Investigation
Status:	Inactive - Action Required
Status Date:	12/16/2011
Restricted Use:	NO
Funding:	School District
Latitude:	37.95865
Longitude:	-121.7105
APN:	018-100-033-2, 018-100-040-7, 018-100-041-5, 018100040
Past Use:	AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS, FUEL - VEHICLE STORAGE/ REFUELING
Potential COC:	31001, 30001, 30003, 30004, 30006, 30007, 30008, 30013, 30023, 30024, 30025
Confirmed COC:	31001,
Potential Description:	SOIL
Alias Name:	Proposed Fourth Middle School Site
Alias Type:	Alternate Name
Alias Name:	018-100-033-2
Alias Type:	APN
Alias Name:	018-100-040-7
Alias Type:	APN
Alias Name:	018-100-041-5
Alias Type:	APN
Alias Name:	018100040
Alias Type:	APN
Alias Name:	204222
Alias Type:	Project Code (Site Code)
Alias Name:	60000916
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported

DUTRA, LEROY (Continued) **S101580840**

Completed Document Type: School Cleanup Agreement
Completed Date: 04/06/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 06/16/2008
Comments: DTSC fully executed the EOA. One original mailed to the District and the other maintained in the project file. DA

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: State/Federal Funded Site Contract Fiscal Approval (CFA)
Completed Date: 10/18/2010
Comments: CFA fully executed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 01/10/2011
Comments: DTSC PM and consultant (Stuart StClair, URS) conducted site visit. Met on-site by District representative (Barbara Tittle)

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: State/Federal Funded Site Work Order
Completed Date: 01/07/2011
Comments: Work Order issued.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Inactive Status Letter
Completed Date: 12/14/2011
Comments: Inactive status notice mailed out 12/14/2011

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: State/Federal Funded Site Contract
Completed Date: 12/31/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 06/27/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/12/2008
Comments: Phase I ESA submitted as background information for a PEAR site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report

DUTRA, LEROY (Continued) **S101580840**

Completed Date: 02/10/2009
Comments: DTSC concurred and approved the PEA with a further action determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.14 Request
Completed Date: 04/01/2009
Comments: DTSC approved Form SFPD 4.14.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 02/23/2011
Comments: DTSC approved the SSI Workplan for implementation. Field work is scheduled for Feb 28 amd Mar 1, 2011.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 02/28/2011
Comments: DTSC provided SSI fieldwork oversight.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 05/16/2011
Comments: DTSC approved the SSI Report with a further action determination.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Removal Action Workplan
Schedule Due Date: 05/14/2013
Schedule Revised Date: Not reported

CA FID UST:
Facility ID: 07000800
Regulated By: UTNKI
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4156341795
Mail To: Not reported
Mailing Address: SMITH LN
Mailing Address 2: Not reported
Mailing City,St,Zip: BRENTWOOD 94513
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

DUTRA, LEROY (Continued) **S101580840**

CONTRA COSTA CO. SITE LIST:

Facility ID:	7000730096
Billing Status:	INACTIVE, NON-BILLABLE
Program Status:	CONTRA COSTA CO. SITE LIST
Program/Elements:	UNDERGROUND STORAGE TANK SITE
Region:	CONTRA COSTA

SWEEPS UST:

Status:	Not reported
Comp Number:	30096
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	07-000-030096-000001
Actv Date:	Not reported
Capacity:	300
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	1

ENVIROSTOR:

Site Type:	School Cleanup
Site Type Detailed:	School
Acres:	18.93
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Jose Luevano
Supervisor:	Juan Koponen
Division Branch:	Northern California Schools & Santa Susana
Facility ID:	60000916
Site Code:	204222
Assembly:	11
Senate:	07
Special Program:	EPA - Target Site Investigation
Status:	Inactive - Action Required
Status Date:	12/16/2011
Restricted Use:	NO
Site Mgmt. Req.:	NONE SPECIFIED
Funding:	School District
Latitude:	37.95865
Longitude:	-121.7105
APN:	018-100-033-2, 018-100-040-7, 018-100-041-5, 018100040
Past Use:	AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS, FUEL - VEHICLE STORAGE/ REFUELING
Potential COC:	31001, 30001, 30003, 30004, 30006, 30007, 30008, 30013, 30023, 30024, 30025
Confirmed COC:	31001,
Potential Description:	SOIL
Alias Name:	Proposed Fourth Middle School Site
Alias Type:	Alternate Name

DUTRA, LEROY (Continued) **S101580840**

Alias Name:	018-100-033-2
Alias Type:	APN
Alias Name:	018-100-040-7
Alias Type:	APN
Alias Name:	018-100-041-5
Alias Type:	APN
Alias Name:	018100040
Alias Type:	APN
Alias Name:	204222
Alias Type:	Project Code (Site Code)
Alias Name:	60000916
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	School Cleanup Agreement
Completed Date:	04/06/2009
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	06/16/2008
Comments:	DTSC fully executed the EOA. One original mailed to the District and the other maintained in the project file. DA

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Completed Sub Area Name:	Not reported
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Completed Date:	10/18/2010
Comments:	CFA fully executed.

Completed Area Name:	PROJECT WIDE
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Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	State/Federal Funded Site Work Order
Completed Date:	01/07/2011
Comments:	Work Order issued.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Inactive Status Letter
Completed Date:	12/14/2011
Comments:	Inactive status notice mailed out 12/14/2011

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	State/Federal Funded Site Contract
Completed Date:	12/31/2010
Comments:	Not reported

DUTRA, LEROY (Continued) **S101580840**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 06/27/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/12/2008
Comments: Phase I ESA submitted as background information for a PEAR site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 02/10/2009
Comments: DTSC concurred and approved the PEA with a further action determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.14 Request
Completed Date: 04/01/2009
Comments: DTSC approved Form SFPD 4.14.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 02/23/2011
Comments: DTSC approved the SSI Workplan for implementation. Field work is scheduled for Feb 28 amd Mar 1, 2011.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 02/28/2011
Comments: DTSC provided SSI fieldwork oversight.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 05/16/2011
Comments: DTSC approved the SSI Report with a further action determination.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Removal Action Workplan
Schedule Due Date: 05/14/2013
Schedule Revised Date: Not reported

5 West 1/4-1/2 0.476 mi. 2512 ft. — **THE SUN RECYCLING CENTER**, **7021 LONE TREE WAY**, **BRENTWOOD, CA 94513** — **SWRCY** — **S110499711**, **N/A**

Relative: Higher

Actual: 97 ft.

SWRCY:

Reg Id:	130568
Cert Id:	RC14905
Org Or Agency Reg Id:	64440
Organization Or Agency Name:	The Sun Recycling Center
Mailing Address:	1355 Quail Valley Run
Mailing City:	Oakley
Mailing State:	CA
Mailing Zip Code:	94561
Website:	Not reported
Email:	Not reported
Phone Number:	(415) 298-4570
Grand Father:	N
Rural:	N
Operation Begin Date:	07/31/2010
Aluminium:	Y
Glass:	Y
Plastic:	Y
Bimetal:	Y
Agency:	N/A
Monday Hours Of Operation:	9:00 am - 5:00 pm
Tuesday Hours Of Operation:	9:00 am - 5:00 pm
Wednesday Hours Of Operation:	9:00 am - 5:00 pm
Thursday Hours Of Operation:	9:00 am - 5:00 pm
Friday Hours Of Operation:	9:00 am - 5:00 pm
Saturday Hours Of Operation:	9:00 am - 3:00 pm
Sunday Hours Of Operation:	CLOSED

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6 NNE 1/2-1 0.610 mi. 3220 ft. — **ZOCCHI ELEMENTARY SCHOOL**, **BROWNSTONE ROAD/ANDERSON LANE**, **OAKLEY, CA 94561** — **SCH**, **ENVIROSTOR** — **S107737654**, **N/A**

Relative: Lower

Actual: 56 ft.

SCH:

Facility ID:	60000254
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	24.9
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Jose Luevano
Supervisor:	Mark Malinowski
Division Branch:	Northern California Schools & Santa Susana
Site Code:	204177
Assembly:	11
Senate:	07
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	09/11/2007

ZOCCHI ELEMENTARY SCHOOL (Continued) **S107737654**

Restricted Use:	NO
Funding:	School District
Latitude:	37.96996
Longitude:	-121.7014
APN:	034-190-002, 034-190-003, 034-190-004, 034-200-017, 034-200-025, 034190002, 034190003, 034190004, 034200017, 034200025
Past Use:	AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS
Potential COC:	, 30001, 30003, 30004, 30006, 30007, 30008, 30013, 30024, 30025, 3002502
Confirmed COC:	30001-NO,30003-NO,30004-NO,30006-NO,30007-NO,30008-NO,30013-NO,31000, 30024-NO,30025-NO,3002502-NO
Potential Description:	SOIL
Alias Name:	034-190-002
Alias Type:	APN
Alias Name:	034-190-003
Alias Type:	APN
Alias Name:	034-190-004
Alias Type:	APN
Alias Name:	034-200-017
Alias Type:	APN
Alias Name:	034-200-025
Alias Type:	APN
Alias Name:	034190002
Alias Type:	APN
Alias Name:	034190003
Alias Type:	APN
Alias Name:	034190004
Alias Type:	APN
Alias Name:	034200017
Alias Type:	APN
Alias Name:	034200025
Alias Type:	APN
Alias Name:	204177
Alias Type:	Project Code (Site Code)
Alias Name:	60000254
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	04/17/2006
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	School Cleanup Agreement
Completed Date:	04/16/2007
Comments:	Sent fully executed agreement to district.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	10/12/2007
Comments:	CRU Memo approved.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported

ZOCCHI ELEMENTARY SCHOOL (Continued) **S107737654**

Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 12/13/2006
Comments: DTSC approved the PEA WP.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 05/18/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 05/30/2007
Comments: DTSC approved the SSI Tech Memo Workplan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.15 Request
Completed Date: 05/18/2007
Comments: 4.15 approval was included in the PEA further action approval letter.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 09/11/2007
Comments: DTSC approved the SSI report with a no further action determination.

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

ENVIROSTOR:
Site Type: School Investigation
Site Type Detailed: School
Acres: 24.9
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Jose Luevano
Supervisor: Mark Malinowski
Division Branch: Northern California Schools & Santa Susana
Facility ID: 60000254
Site Code: 204177
Assembly: 11
Senate: 07
Special Program: Not reported
Status: No Further Action
Status Date: 09/11/2007
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED

ZOCCHI ELEMENTARY SCHOOL (Continued) **S107737654**

Funding: School District
Latitude: 37.96996
Longitude: -121.7014
APN: 034-190-002, 034-190-003, 034-190-004, 034-200-017, 034-200-025, 034190002, 034190003, 034190004, 034200017, 034200025
Past Use: AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS
Potential COC: , 30001, 30003, 30004, 30006, 30007, 30008, 30013, 30024, 30025, 3002502
Confirmed COC: 30001-NO,30003-NO,30004-NO,30006-NO,30007-NO,30008-NO,30013-NO,31000, 30024-NO,30025-NO,3002502-NO
Potential Description: SOIL
Alias Name: 034-190-002
Alias Type: APN
Alias Name: 034-190-003
Alias Type: APN
Alias Name: 034-190-004
Alias Type: APN
Alias Name: 034-200-017
Alias Type: APN
Alias Name: 034-200-025
Alias Type: APN
Alias Name: 034190002
Alias Type: APN
Alias Name: 034190003
Alias Type: APN
Alias Name: 034190004
Alias Type: APN
Alias Name: 034200017
Alias Type: APN
Alias Name: 034200025
Alias Type: APN
Alias Name: 204177
Alias Type: Project Code (Site Code)
Alias Name: 60000254
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 04/17/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 04/16/2007
Comments: Sent fully executed agreement to district.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 10/12/2007
Comments: CRU Memo approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan

ZOCCHI ELEMENTARY SCHOOL (Continued) **S107737654**

Completed Date:	12/13/2006
Comments:	DTSC approved the PEA WP.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	05/18/2007
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Supplemental Site Investigation Workplan
Completed Date:	05/30/2007
Comments:	DTSC approved the SSI Tech Memo Workplan.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	4.15 Request
Completed Date:	05/18/2007
Comments:	4.15 approval was included in the PEA further action approval letter.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Supplemental Site Investigation Report
Completed Date:	09/11/2007
Comments:	DTSC approved the SSI report with a no further action determination.
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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7 West 1/2-1 0.911 mi. 4809 ft.

LA PALOMA
6651 LONE TREE WAY
BRENTWOOD, CA 94513

SCH **S105628389**
ENVIROSTOR **N/A**

Relative: Higher

Actual: 104 ft.

SCH:

Facility ID:	07010008
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	5.65
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Kamili Siglowide
Supervisor:	Mark Malinowski
Division Branch:	Northern California Schools & Santa Susana
Site Code:	204056

LA PALOMA (Continued) **S105628389**

Assembly:	11
Senate:	07
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	09/09/2004
Restricted Use:	NO
Funding:	School District
Latitude:	37.96115
Longitude:	-121.7299
APN:	019050040
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	, 30023
Confirmed COC:	30023-NO,31000
Potential Description:	SOIL
Alias Name:	LA PALOMA
Alias Type:	Alternate Name
Alias Name:	LIBERTY UNION HIGH SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	LIBERTY UNION HSD-LA PALOMA EXPANSION
Alias Type:	Alternate Name
Alias Name:	019050040
Alias Type:	APN
Alias Name:	110021528373
Alias Type:	EPA (FRS #)
Alias Name:	204056
Alias Type:	Project Code (Site Code)
Alias Name:	07010008
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:	09/10/2004
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Public Participation
Completed Date:	07/20/2004
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	06/22/2001
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	11/29/2000
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	09/09/2004

LA PALOMA (Continued) **S105628389**

Comments: DTSC approved the PEA equivalent with a no further action determination

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 06/01/2001
Comments: Not reported

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

ENVIROSTOR:
Site Type: School Investigation
Site Type Detailed: School
Acres: 5.65
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Kamili Siglowide
Supervisor: Mark Malinowski
Division Branch: Northern California Schools & Santa Susana
Facility ID: 07010008
Site Code: 204056
Assembly: 11
Senate: 07
Special Program: Not reported
Status: No Further Action
Status Date: 09/09/2004
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: School District
Latitude: 37.96115
Longitude: -121.7299
APN: 019050040
Past Use: AGRICULTURAL - ROW CROPS
Potential COC: , 30023
Confirmed COC: 30023-NO,31000
Potential Description: SOIL
Alias Name: LA PALOMA
Alias Type: Alternate Name
Alias Name: LIBERTY UNION HIGH SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: LIBERTY UNION HSD-LA PALOMA EXPANSION
Alias Type: Alternate Name
Alias Name: 019050040
Alias Type: APN
Alias Name: 110021528373
Alias Type: EPA (FRS #)
Alias Name: 204056

LA PALOMA (Continued) **S105628389**

Alias Type: Project Code (Site Code)
Alias Name: 07010008
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: 09/10/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Public Participation
Completed Date: 07/20/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 06/22/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 11/29/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 09/09/2004
Comments: DTSC approved the PEA equivalent with a no further action determination

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 06/01/2001
Comments: Not reported

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

Count: 40 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BRENTWOOD	S101580795	SAVERS GAS	2323 HIGHWAY 4	94513	FID,SWEEPS UST
BRENTWOOD	S101580832	CLEMONS, GEORGE EARL	RR 3 BOX	94513	FID,SL CONTRA COSTA
BRENTWOOD	S101580870	NORMAN'S BRENTWOOD NURSERY	RR 3 BOX 526 HWY 4	94513	FID,SWEEPS UST,SL CONTRA COS
BRENTWOOD	S101623515	BILL BRANDT FORD, INC.	1245 HIGHWAY 4	94513	FID,SL CONTRA COSTA,SWEEPS US
BRENTWOOD	S102260121	BETTENCOURT, EVELYN T	RT 1, BOX 116	94513	SL CONTRA COSTA
BRENTWOOD	S102260124	HARDIN, CHARLES W	RT 1, BOX 55A	94513	SL CONTRA COSTA
BRENTWOOD	S102260125	BRANSCUM, LUTHER W	RT 1, BOX 55B	94513	SL CONTRA COSTA
BRENTWOOD	S102260126	SOITE, CATARINA	RT 1, BOX 7	94513	SL CONTRA COSTA
BRENTWOOD	S102260127	MAGGIORA, MELVIN	RT 2, BOX 197	94513	SL CONTRA COSTA
OAKLEY	S102261425	SHOSHONE OIL CORPORATION	OAKLEY GAS FIELD & HWY 4	94561	SL CONTRA COSTA
OAKLEY	S102261428	COUNTRY INVESTORS	O'HARA AVE	94561	SL CONTRA COSTA
OAKLEY	S102261431	MCKINNEY, EMILE E	RT 1, BOX 172	94561	SL CONTRA COSTA
OAKLEY	S102261432	LUCCHESI, ROY & RAPLH	RT 1, BOX 253	94561	SL CONTRA COSTA
OAKLEY	S102261435	STONEBARGER RANCH	RT 1, BOX 339	94561	SL CONTRA COSTA
OAKLEY	S102261448	WESTERN CONT'L NGC-KYSH-1	SUNSET & HWY 4	94561	SL CONTRA COSTA
BRENTWOOD	S103464216	KARAGLANIS, FRANK P	RT 1, BOX 42	94513	SL CONTRA COSTA
OAKLEY	S103894558	BALDOCCHI, EVO	RT 2, BOX 187	94561	SL CONTRA COSTA
BRENTWOOD	S104161982	RIPPEE RANCH	RT 2, BOX 241	94513	SL CONTRA COSTA
BRENTWOOD	S105022926	BLUE GOOSE PROPERTIES	380 HWY 4 S	94513	LUST,HIST CORTESE
BRENTWOOD	S106112407	OXY USA INC. (BRENTWOOD OIL & GAS	LONE TREE WAY & DEER VALLEY RD		SLIC
BRENTWOOD	S106230275	VENTURINI LEASE SITE (BRENTWOOD OI	DEER VALLEY RD & LONE TREE WAY		SLIC
BRENTWOOD	S106923430	BLUE GOOSE PROPERTIES	UNKNOWN	94513	SWEEPS UST
BRENTWOOD	S106925285	DELTA FENCE CO., INC.	HIGHWAY 4	94513	SWEEPS UST
BRENTWOOD	S106928458	LADD, L. JORDAN	BYRON HIGHWAY AT	94513	SWEEPS UST
OAKLEY	S106929309	MELLO'S SHEET METAL	HWY 4 AT BRIDGEHEAD	94561	SWEEPS UST
OAKLEY	S106930066	OAKLEY BUILDERS SUPPLY	800 MAIN ST HWY 4	94561	SWEEPS UST
BRENTWOOD	S109420875	AT&T MOBILITY/BRENTWOOD (45459)	BALFOUR RD & HWY 4 BYPASS	94513	SL CONTRA COSTA
OAKLEY	S110654016	FOOD & LIQUOR #86	HWY 4 & CYPRESS	94561	LUST
BRENTWOOD	S111076158	VETERANS ADMINISTRATION DISPOSAL S	330 SOUTH BARRINGTON AVENUE		LF
BRENTWOOD	S111859594	MICHAELS STORE #5706	5501 LONE TREE WY	94513	SL CONTRA COSTA
BRENTWOOD	S113407725	VINTAGE PRODUCTION/CESA 1 NATURAL	HWY 4/LONE TREE WAY	94561	SL CONTRA COSTA
BRENTWOOD	S113407730	PREWETT RANCH	LONE TREE WY	94513	SL CONTRA COSTA
BRENTWOOD	S113407735	CARPENTER, CAROLYN	LONE TREE WY	94513	SL CONTRA COSTA
OAKLEY	S113407742	WESTERN CONT'L HART #1	LONE TREE WY	94561	SL CONTRA COSTA
BRENTWOOD	U001596356	L. JORDAN LADD	BYRON HIGHWAY AT	94513	HIST UST
BRENTWOOD	U001596358	LEROY DUTRA	SMITH LANE	94513	HIST UST
BRENTWOOD	U001596363	MANGINI BROS	HIGHWAY 4	94513	HIST UST,SWEEPS UST
BRENTWOOD	U003784124	MANGINI BROS	HWY 4	94513	SL CONTRA COSTA,UST
BRENTWOOD	U003784169	LADD, L. JORDAN	BYRON HWY	94513	SL CONTRA COSTA,UST
OAKLEY	U003937357	7-ELEVEN STORE #32787	EMPIRE RD/HWY 4	94561	UST

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

Federal NPL site list

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: 02/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 12

Source: EPA
Telephone: N/A
Last EDR Contact: 05/09/2013
Next Scheduled EDR Contact: 07/22/2013
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: 02/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 12

Source: EPA
Telephone: N/A
Last EDR Contact: 05/09/2013
Next Scheduled EDR Contact: 07/22/2013
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

Federal Delisted NPL site list

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: 02/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 12

Source: EPA
Telephone: N/A
Last EDR Contact: 05/09/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
CERCLIS 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). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/04/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 12

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 05/29/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Quarterly

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: 07/31/2012
Date Data Arrived at EDR: 10/09/2012
Date Made Active in Reports: 12/20/2012
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/10/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned
Archived sites are sites that have been removed and archived from the inventory of CERCLIS 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 this 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. This 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 a potential NPL site.

Date of Government Version: 02/05/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 12

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 05/29/2013
Next Scheduled EDR Contact: 05/09/2013
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report
CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 02/12/2013
Date Data Arrived at EDR: 02/21/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 6

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

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: 02/12/2013
Date Data Arrived at EDR: 02/15/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Quarterly

Federal RCRA generators list

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: 02/12/2013
Date Data Arrived at EDR: 02/15/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/15/2013
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: 02/12/2013
Date Data Arrived at EDR: 02/15/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - 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). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/12/2013
Date Data Arrived at EDR: 02/15/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

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: 03/14/2013
Date Data Arrived at EDR: 03/29/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 03/11/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls
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: 03/14/2013
Date Data Arrived at EDR: 03/29/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 03/11/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Varies

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: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/20/2013
Next Scheduled EDR Contact: 09/02/2013
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: 12/31/2012
Date Data Arrived at EDR: 01/17/2013
Date Made Active in Reports: 02/15/2013
Number of Days to Update: 29

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 04/02/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Annually

State- and tribal - equivalent NPL

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: 03/13/2013
Date Data Arrived at EDR: 03/14/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 13

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/07/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

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: 03/13/2013
Date Data Arrived at EDR: 03/14/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 13

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/07/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

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: 02/18/2013
Date Data Arrived at EDR: 02/18/2013
Date Made Active in Reports: 03/20/2013
Number of Days to Update: 30

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/21/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

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: Varies

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 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 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 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 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 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 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: Quarterly

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: Geotracker's Leaking Underground Fuel Tank Report
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Quarterly

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

SLIC: Statewide SLIC Cases
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: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/01/2013
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: Quarterly

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: Semi-Annually

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: Varies

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: Semi-Annually

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: Semi-Annually

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: Semi-Annually

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: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 02/05/2013
Date Data Arrived at EDR: 02/06/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 65

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

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: 09/28/2012
Date Data Arrived at EDR: 11/01/2012
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 162

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/01/2013
Next Scheduled EDR Contact: 08/12/2013
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: 08/27/2012
Date Data Arrived at EDR: 08/28/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 49

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 59

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
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: 02/06/2013
Date Data Arrived at EDR: 02/08/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 63

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Semi-Annually

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 02/28/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 43

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
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: 03/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

State and tribal registered storage tank lists

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 04/18/2013
Number of Days to Update: 30

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 916-327-5092
Last EDR Contact: 04/08/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Quarterly

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: 02/05/2013
Date Data Arrived at EDR: 02/06/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 65

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

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: 02/21/2013
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 45

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

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: 08/27/2012
Date Data Arrived at EDR: 08/28/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 49

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

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: 12/31/2012
Date Data Arrived at EDR: 02/28/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 43

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
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: 05/10/2011
Date Data Arrived at EDR: 05/11/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 34

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Semi-Annually

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: 08/02/2012
Date Data Arrived at EDR: 08/03/2012
Date Made Active in Reports: 11/05/2012
Number of Days to Update: 94

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
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: 02/06/2013
Date Data Arrived at EDR: 02/08/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 63

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Semi-Annually

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: 09/28/2012
Date Data Arrived at EDR: 11/07/2012
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 156

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/18/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Varies

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: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
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: 03/13/2013
Date Data Arrived at EDR: 03/14/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 13

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/07/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Quarterly

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: 09/28/2012
Date Data Arrived at EDR: 10/02/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 14

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 04/05/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Varies

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: 12/10/2012
Date Data Arrived at EDR: 12/11/2012
Date Made Active in Reports: 12/20/2012
Number of Days to Update: 9

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/26/2013
Next Scheduled EDR Contact: 07/08/2013
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

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

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: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: No Update Planned

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: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/19/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 04/26/2013
Date Data Arrived at EDR: 04/26/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 20

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 05/20/2013
Next Scheduled EDR Contact: 09/02/2013
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: 05/03/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

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: 03/04/2013
Date Data Arrived at EDR: 03/12/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 59

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: Quarterly

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: 03/13/2013
Date Data Arrived at EDR: 03/14/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 13

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/07/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Quarterly

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

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: 12/31/2012
Date Data Arrived at EDR: 04/03/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 41

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 04/01/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

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: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

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

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: Annually

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

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

Local Land Records

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: 02/06/2013
Date Data Arrived at EDR: 04/25/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 03/15/2013
Date Data Arrived at EDR: 03/15/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 12

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/11/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Varies

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: 03/11/2013
Date Data Arrived at EDR: 03/12/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 13

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/12/2013
Next Scheduled EDR Contact: 06/24/2013
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: 12/31/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 55

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 04/02/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Annually

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: 12/06/2012
Date Data Arrived at EDR: 01/29/2013
Date Made Active in Reports: 03/19/2013
Number of Days to Update: 49

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 05/01/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/01/2013
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

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: 02/12/2013
Date Data Arrived at EDR: 02/15/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 05/07/2013
Next Scheduled EDR Contact: 08/19/2013
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: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Semi-Annually

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: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 15

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 03/11/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Varies

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: 12/31/2011
Date Data Arrived at EDR: 01/15/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 57

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/01/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Varies

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: 12/18/2012
Date Data Arrived at EDR: 03/13/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 30

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/13/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Annually

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: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

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: 02/05/2013
Date Data Arrived at EDR: 04/18/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 22

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/04/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: Semi-Annually

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: 12/31/2009
Date Data Arrived at EDR: 09/01/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 131

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/29/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Annually

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: 12/31/2006
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 64

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/28/2013
Next Scheduled EDR Contact: 07/08/2013
Data Release Frequency: Every 4 Years

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: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Quarterly

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: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
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

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: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
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: 07/20/2011
Date Data Arrived at EDR: 11/10/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 61

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 04/15/2013
Next Scheduled EDR Contact: 07/29/2013
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: 11/01/2012
Date Data Arrived at EDR: 01/16/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 114

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Annually

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: 06/21/2011
Date Data Arrived at EDR: 07/15/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 60

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 03/11/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Quarterly

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: 04/09/2013
Date Data Arrived at EDR: 04/11/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 29

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/11/2013
Next Scheduled EDR Contact: 07/22/2013
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: 10/23/2011
Date Data Arrived at EDR: 12/13/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 79

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 03/12/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Quarterly

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

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: 05/08/2012
Date Data Arrived at EDR: 05/25/2012
Date Made Active in Reports: 07/10/2012
Number of Days to Update: 46

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
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: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/19/2013
Number of Days to Update: 52

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 05/30/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Biennially

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

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 02/18/2013
Date Data Arrived at EDR: 02/18/2013
Date Made Active in Reports: 03/20/2013
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/21/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Quarterly

UIC: UIC Listing

A listing of underground control injection wells.

Date of Government Version: 03/05/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 03/19/2013
Next Scheduled EDR Contact: 12/31/2012
Data Release Frequency: Varies

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: 04/01/2013
Date Data Arrived at EDR: 04/02/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 42

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 04/02/2013
Next Scheduled EDR Contact: 07/15/2013
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

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: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/25/2013
Next Scheduled EDR Contact: 07/08/2013
Data Release Frequency: No Update Planned

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: 12/11/2012
Date Data Arrived at EDR: 12/12/2012
Date Made Active in Reports: 01/04/2013
Number of Days to Update: 23

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 03/11/2013
Next Scheduled EDR Contact: 12/24/2012
Data Release Frequency: Annually

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: 04/01/2013
Next Scheduled EDR Contact: 07/15/2013
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: 04/26/2013
Date Data Arrived at EDR: 04/29/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 17

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 04/26/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

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.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 06/22/2012
Date Made Active in Reports: 07/06/2012
Number of Days to Update: 14

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Annually

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 10/18/2010
Number of Days to Update: 19

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 03/29/2013
Next Scheduled EDR Contact: 07/08/2013
Data Release Frequency: Varies

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: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Semi-Annually

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: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/06/2013
Next Scheduled EDR Contact: 08/05/2013
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: 03/04/2013
Date Data Arrived at EDR: 03/15/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 56

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 05/20/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Quarterly

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/03/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/19/2013
Next Scheduled EDR Contact: 07/01/2013
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: 03/06/2013
Date Data Arrived at EDR: 03/12/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 13

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/11/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 04/18/2013
Next Scheduled EDR Contact: 07/29/2013
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: 08/17/2010
Date Data Arrived at EDR: 01/03/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/15/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Varies

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: 04/15/2013
Date Data Arrived at EDR: 04/16/2013
Date Made Active in Reports: 05/17/2013
Number of Days to Update: 31

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 04/16/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/25/2013
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 27

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/29/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Quarterly

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: 02/19/2013
Date Data Arrived at EDR: 02/20/2013
Date Made Active in Reports: 03/20/2013
Number of Days to Update: 28

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/20/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 03/01/2007
Date Data Arrived at EDR: 06/01/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 28

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 05/03/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites
A listing of former lead smelter site locations.

Date of Government Version: 01/29/2013
Date Data Arrived at EDR: 02/14/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 04/08/2013
Next Scheduled EDR Contact: 07/22/2013
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

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: 11/11/2011
Date Data Arrived at EDR: 05/18/2012
Date Made Active in Reports: 05/25/2012
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/17/2013
Next Scheduled EDR Contact: 08/26/2013
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: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: N/A

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 12/02/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 04/04/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Quarterly

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: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Quarterly

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: 01/23/2013
Date Data Arrived at EDR: 01/30/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-5962
Last EDR Contact: 04/01/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 01/23/2013
Date Data Arrived at EDR: 01/30/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-5962
Last EDR Contact: 04/01/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Annually

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: 12/31/2012
Date Data Arrived at EDR: 02/18/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Quarterly

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 US Hist Auto Stat: EDR Exclusive Historic Gas 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 US Hist Cleaners: EDR Exclusive Historic Dry 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 US Hist Cleaners: EDR Proprietary Historic Dry Cleaners - Cole

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: N/A
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Auto Stat: EDR Proprietary Historic Gas Stations - Cole

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: N/A
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COUNTY RECORDS

ALAMEDA COUNTY:

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: 04/15/2013
Date Data Arrived at EDR: 04/16/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 30

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/01/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Semi-Annually

Underground Tanks
Underground storage tank sites located in Alameda county.

Date of Government Version: 04/15/2013
Date Data Arrived at EDR: 04/16/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 30

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/01/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List
Cupa Facility List

Date of Government Version: 03/13/2013
Date Data Arrived at EDR: 03/14/2013
Date Made Active in Reports: 04/04/2013
Number of Days to Update: 21

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 03/11/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing
Cupa facility list.

Date of Government Version: 10/16/2012
Date Data Arrived at EDR: 10/17/2012
Date Made Active in Reports: 11/13/2012
Number of Days to Update: 27

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 04/26/2013
Next Scheduled EDR Contact: 04/29/2013
Data Release Frequency: Varies

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 04/16/2013
Date Data Arrived at EDR: 04/17/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 29

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 04/15/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 01/04/2013
Date Data Arrived at EDR: 01/14/2013
Date Made Active in Reports: 03/01/2013
Number of Days to Update: 46

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 04/09/2013
Date Data Arrived at EDR: 04/10/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 34

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 05/06/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 01/09/2013
Date Data Arrived at EDR: 01/10/2013
Date Made Active in Reports: 02/25/2013
Number of Days to Update: 46

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 05/06/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 02/27/2013
Date Data Arrived at EDR: 02/28/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 25

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 05/06/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Varies

FRESNO COUNTY:

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: 03/31/2013
Date Data Arrived at EDR: 04/16/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 30

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 04/15/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 03/15/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 05/01/2012
Date Data Arrived at EDR: 05/02/2012
Date Made Active in Reports: 06/11/2012
Number of Days to Update: 40

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/26/2012
Date Data Arrived at EDR: 06/27/2012
Date Made Active in Reports: 08/17/2012
Number of Days to Update: 51

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 08/31/2010
Date Data Arrived at EDR: 09/01/2010
Date Made Active in Reports: 09/30/2010
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Quarterly

KINGS COUNTY:

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: 02/12/2013
Date Data Arrived at EDR: 02/13/2013
Date Made Active in Reports: 03/21/2013
Number of Days to Update: 36

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/23/2013
Date Data Arrived at EDR: 01/25/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 33

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

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: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 10/31/2012
Date Data Arrived at EDR: 12/28/2012
Date Made Active in Reports: 01/25/2013
Number of Days to Update: 28

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/15/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/24/2013
Date Data Arrived at EDR: 04/24/2013
Date Made Active in Reports: 05/17/2013
Number of Days to Update: 23

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/24/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 05/20/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/30/2013
Date Data Arrived at EDR: 02/21/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 32

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 04/29/2013
Date Made Active in Reports: 05/17/2013
Number of Days to Update: 18

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 04/26/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 04/15/2013
Date Data Arrived at EDR: 04/16/2013
Date Made Active in Reports: 05/17/2013
Number of Days to Update: 31

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/15/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Semi-Annually

MADERA COUNTY:

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: 04/15/2013
Date Data Arrived at EDR: 04/16/2013
Date Made Active in Reports: 05/17/2013
Number of Days to Update: 31

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 11/26/2012
Date Data Arrived at EDR: 11/28/2012
Date Made Active in Reports: 01/21/2013
Number of Days to Update: 54

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 04/08/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 02/25/2013
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 27

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/25/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 03/04/2013
Date Data Arrived at EDR: 03/08/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 17

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 03/14/2013
Date Data Arrived at EDR: 03/15/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 12

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 03/08/2013
Date Data Arrived at EDR: 03/08/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 17

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 05/17/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 02/04/2013
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 03/20/2013
Number of Days to Update: 22

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 02/04/2013
Date Data Arrived at EDR: 02/19/2013
Date Made Active in Reports: 03/20/2013
Number of Days to Update: 29

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 02/04/2013
Date Data Arrived at EDR: 02/18/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 37

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 03/12/2013
Date Data Arrived at EDR: 03/13/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 14

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 03/11/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/23/2013
Date Data Arrived at EDR: 04/24/2013
Date Made Active in Reports: 05/17/2013
Number of Days to Update: 23

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/25/2013
Next Scheduled EDR Contact: 07/08/2013
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 04/23/2013
Date Data Arrived at EDR: 04/24/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 22

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/25/2013
Next Scheduled EDR Contact: 07/08/2013
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/04/2013
Date Data Arrived at EDR: 04/11/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 33

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/08/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Quarterly

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: 02/04/2013
Date Data Arrived at EDR: 04/12/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 34

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/08/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

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: 03/04/2013
Date Data Arrived at EDR: 03/05/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 20

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 05/13/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

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: 08/17/2012
Date Data Arrived at EDR: 08/20/2012
Date Made Active in Reports: 10/03/2012
Number of Days to Update: 44

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2012
Date Data Arrived at EDR: 11/06/2012
Date Made Active in Reports: 11/30/2012
Number of Days to Update: 24

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 04/26/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

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: 03/12/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

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: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 03/25/2013
Date Data Arrived at EDR: 03/25/2013
Date Made Active in Reports: 04/18/2013
Number of Days to Update: 24

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/25/2013
Next Scheduled EDR Contact: 07/08/2013
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 02/26/2013
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 27

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 04/09/2013
Date Data Arrived at EDR: 04/10/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 34

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/18/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Annually

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/18/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

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: 05/20/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List

Cupa facility list

Date of Government Version: 03/04/2013
Date Data Arrived at EDR: 03/05/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 20

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: Varies

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

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/04/2013
Date Data Arrived at EDR: 03/06/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 19

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: Annually

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 02/12/2013
Date Data Arrived at EDR: 02/14/2013
Date Made Active in Reports: 03/20/2013
Number of Days to Update: 34

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 05/13/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 02/26/2013
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 03/20/2013
Number of Days to Update: 22

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 03/15/2013
Date Data Arrived at EDR: 03/15/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 12

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 03/20/2013
Date Data Arrived at EDR: 03/28/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 47

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/18/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/20/2013
Date Data Arrived at EDR: 03/28/2013
Date Made Active in Reports: 05/13/2013
Number of Days to Update: 46

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/18/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 04/01/2013
Date Data Arrived at EDR: 04/03/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 41

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 04/01/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/02/2013
Date Data Arrived at EDR: 04/03/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 41

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 04/01/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 03/13/2013
Date Data Arrived at EDR: 03/14/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 13

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 03/11/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/14/2013
Date Data Arrived at EDR: 01/16/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 42

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 05/15/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Varies

VENTURA COUNTY:

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: 03/30/2012
Date Data Arrived at EDR: 05/25/2012
Date Made Active in Reports: 07/06/2012
Number of Days to Update: 42

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/20/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Quarterly

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: 04/08/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Annually

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: 02/18/2013
Next Scheduled EDR Contact: 06/03/2013
Data Release Frequency: Quarterly

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: 01/28/2013
Date Data Arrived at EDR: 02/01/2013
Date Made Active in Reports: 03/20/2013
Number of Days to Update: 47

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/29/2013
Next Scheduled EDR Contact: 05/13/2013
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 03/01/2013
Date Data Arrived at EDR: 03/28/2013
Date Made Active in Reports: 05/13/2013
Number of Days to Update: 46

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/18/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 03/25/2013
Date Data Arrived at EDR: 03/29/2013
Date Made Active in Reports: 05/13/2013
Number of Days to Update: 45

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/25/2013
Next Scheduled EDR Contact: 07/08/2013
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 03/05/2013
Date Data Arrived at EDR: 03/06/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 19

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 05/20/2013
Next Scheduled EDR Contact: 08/19/2013
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: 02/18/2013
Date Data Arrived at EDR: 02/18/2013
Date Made Active in Reports: 03/21/2013
Number of Days to Update: 31

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/21/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 08/28/2012
Number of Days to Update: 40

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
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: 02/01/2013
Date Data Arrived at EDR: 02/07/2013
Date Made Active in Reports: 03/15/2013
Number of Days to Update: 36

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/09/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/23/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 57

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/23/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 06/22/2012
Date Made Active in Reports: 07/31/2012
Number of Days to Update: 39

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 09/27/2012
Number of Days to Update: 70

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/18/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: Rextag Strategies Corp.
Telephone: (281) 769-2247
U.S. Electric Transmission and Power Plants Systems Digital GIS Data

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, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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GEOCHECK®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

AGRICULTURAL PROPERTIES
7590 LONE TREE WAY
BRENTWOOD, CA 94513

TARGET PROPERTY COORDINATES

Latitude (North):	37.9625 - 37° 57' 45.00"
Longitude (West):	121.7115 - 121° 42' 41.40"
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	613189.6
UTM Y (Meters):	4202231.5
Elevation:	78 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	37121-H6 BRENTWOOD, CA
Most Recent Revision:	1978

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 principal 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).

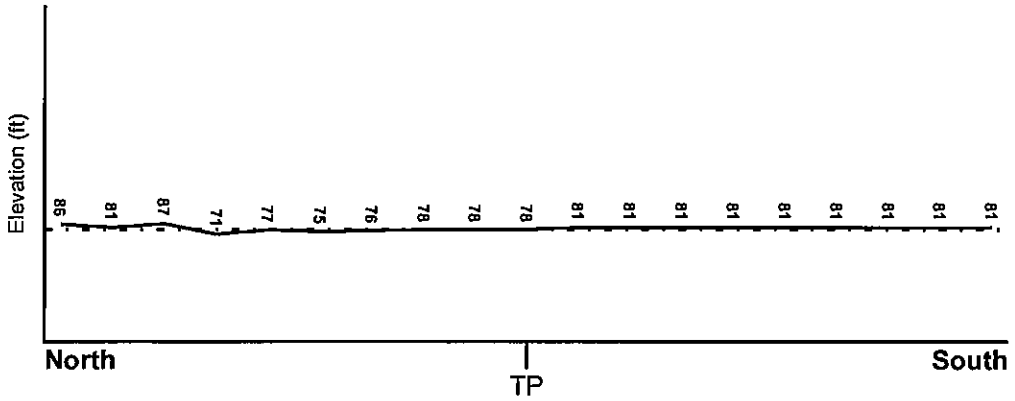
TOPOGRAPHIC INFORMATION

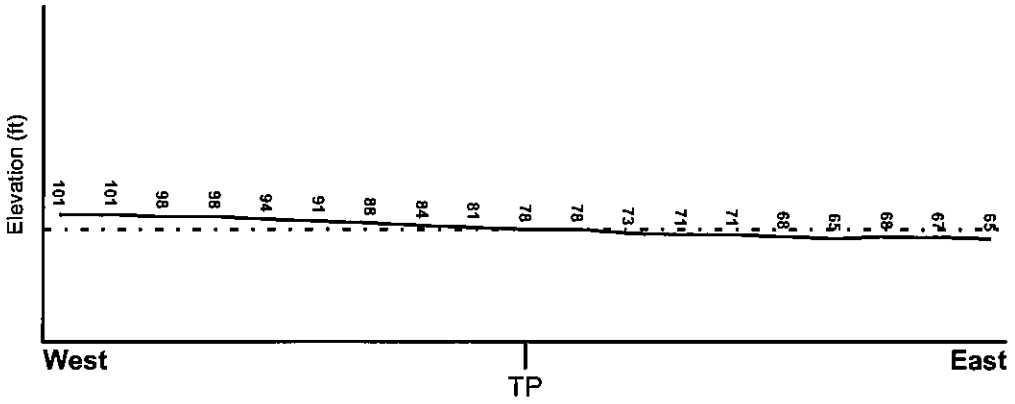
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General ENE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 78 ft.

0 1/2 1 Miles

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

Target Property County	FEMA Flood Electronic Data
CONTRA COSTA, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property:	06013C - FEMA DFIRM Flood data
Additional Panels in search area:	Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
BRENTWOOD	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

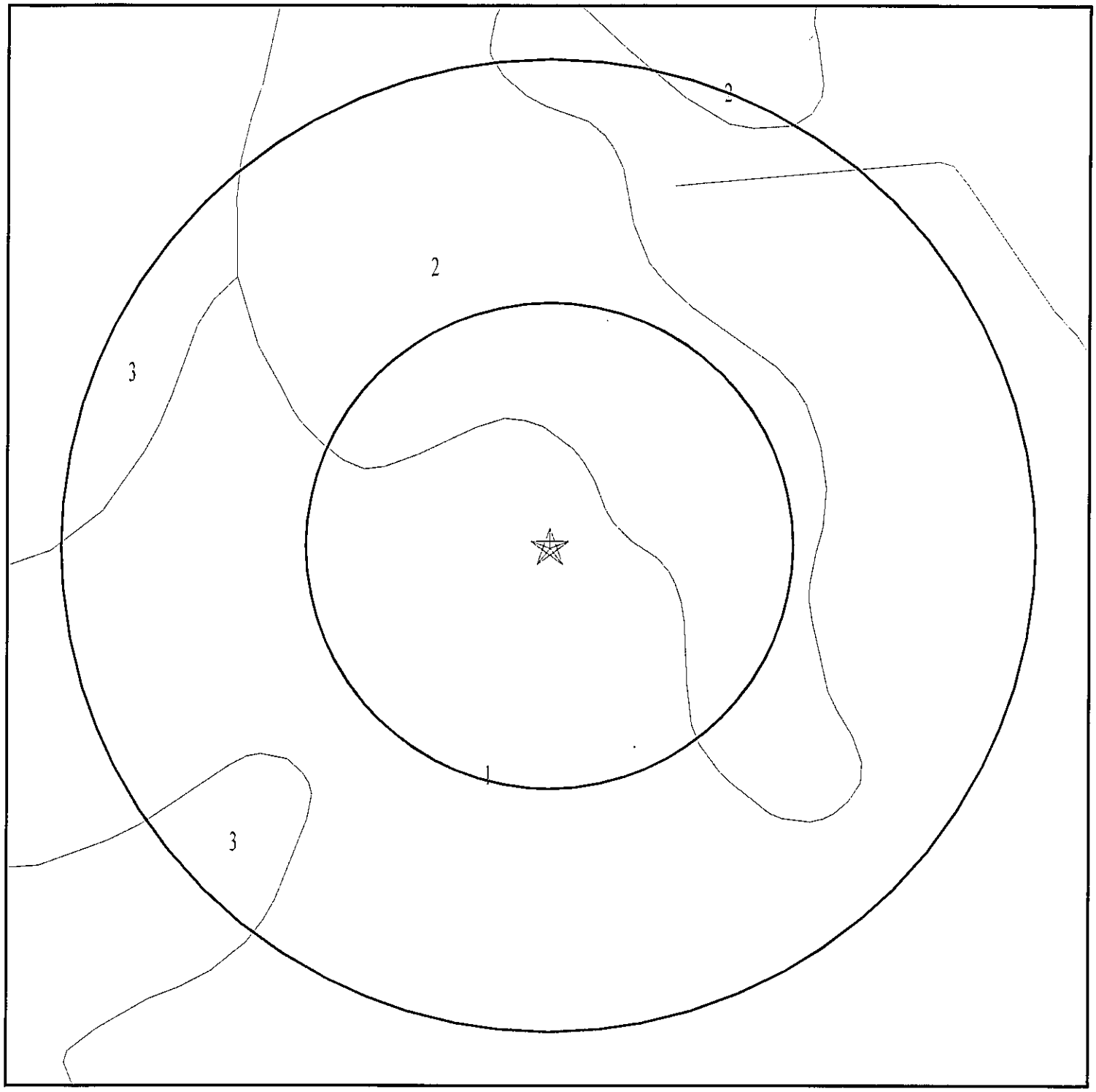
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

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 - 03628074.2r



★ Target Property

SSURGO Soil

Water

0 1/16 1/8 1/4 Miles

N

SITE NAME: Agricultural Properties ADDRESS: 7590 Lone Tree Way Brentwood CA 94513 LAT/LONG: 37.9625 / 121.7115	CLIENT: Bureau Veritas North America, Inc. CONTACT: Don Ashton INQUIRY #: 03628074.2r DATE: June 06, 2013 2:06 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: RINCON

Soil Surface Texture: clay 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: Partially 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	11 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
2	11 inches	29 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
3	29 inches	59 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9

Soil Map ID: 2

Soil Component Name: DELHI

Soil Surface Texture: sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

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	sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.6
2	5 inches	59 inches	sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.6

Soil Map ID: 3

Soil Component Name: CAPAY

Soil Surface Texture: clay

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: Moderately well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Partially 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	35 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
2	35 inches	51 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
3	51 inches	72 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6

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

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
3	USGS40000186305	1/8 - 1/4 Mile NE
5	USGS40000186318	1/4 - 1/2 Mile NNW
6	USGS40000186286	1/4 - 1/2 Mile WSW
7	USGS40000186270	1/2 - 1 Mile ESE
A11	USGS40000186272	1/2 - 1 Mile ESE
A12	USGS40000186275	1/2 - 1 Mile ESE
16	USGS40000186360	1/2 - 1 Mile North
17	USGS40000186246	1/2 - 1 Mile SSE
22	USGS40000186322	1/2 - 1 Mile ENE

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
1	60	0 - 1/8 Mile NW
2	61	0 - 1/8 Mile SW
4	80	1/4 - 1/2 Mile SSE
8	77	1/2 - 1 Mile East
9	64	1/2 - 1 Mile ESE
10	63	1/2 - 1 Mile East
B13	CADW50000030847	1/2 - 1 Mile East
B14	CADW50000030848	1/2 - 1 Mile East
B15	CADW50000030849	1/2 - 1 Mile East
18	62	1/2 - 1 Mile East
19	76	1/2 - 1 Mile ENE
20	1690	1/2 - 1 Mile NE
21	79	1/2 - 1 Mile SSE

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

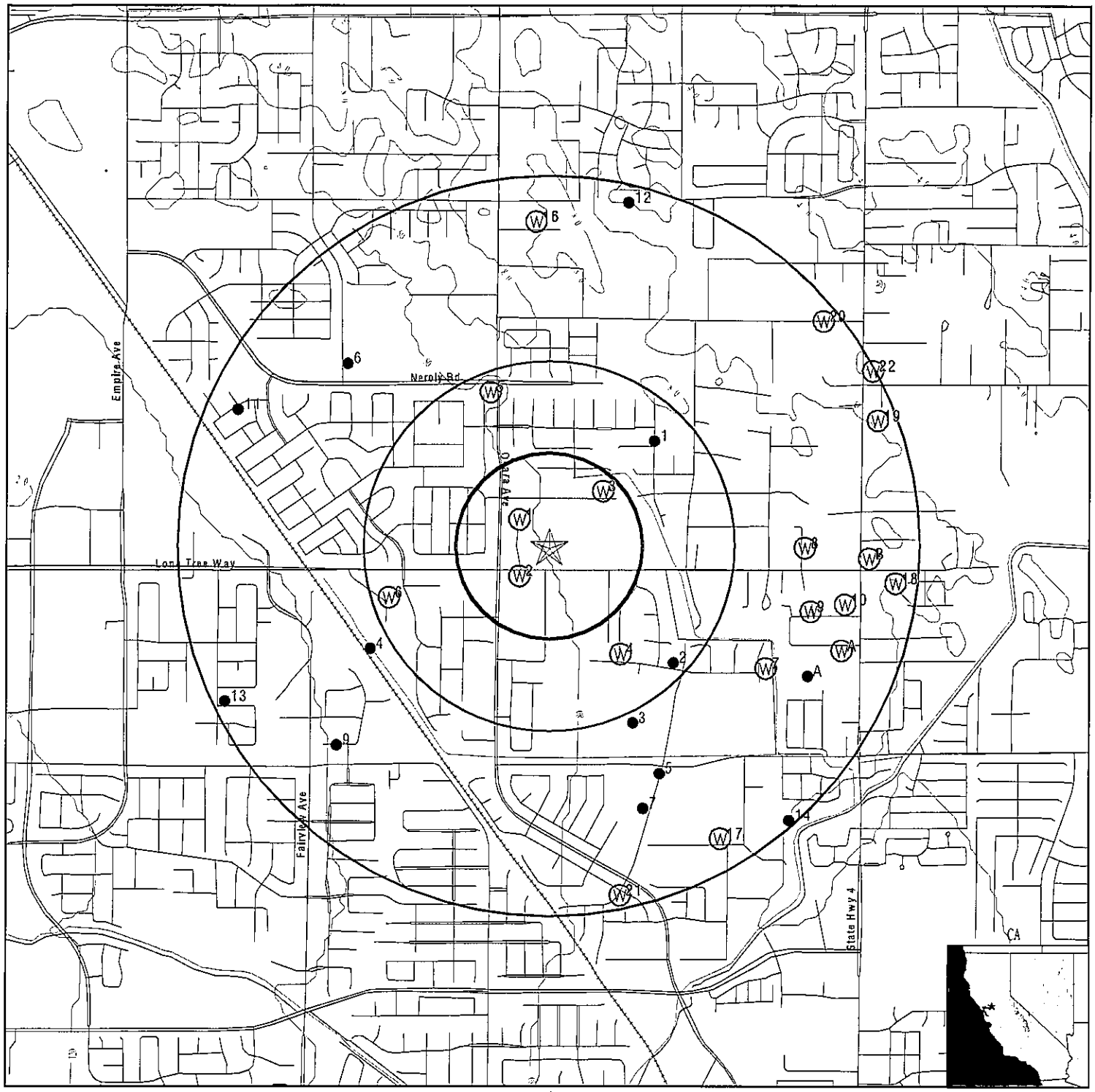
MAP ID	WELL ID	LOCATION FROM TP
1	CAOG9A000207936	1/4 - 1/2 Mile NE
2	CAOG9A000207866	1/4 - 1/2 Mile SE
3	CAOG9A000207842	1/2 - 1 Mile SSE
4	CAOG9A000207870	1/2 - 1 Mile WSW
5	CAOG9A000207821	1/2 - 1 Mile SSE
6	CAOG9A000207954	1/2 - 1 Mile NW
7	CAOG9A000207806	1/2 - 1 Mile SSE
A8	CAOG9A000207859	1/2 - 1 Mile ESE
9	CAOG9A000207834	1/2 - 1 Mile SW
A10	CAOG9A000207858	1/2 - 1 Mile ESE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
11	CAOG9A000207942	1/2 - 1 Mile WNW
12	CAOG9A000207984	1/2 - 1 Mile NNE
13	CAOG9A000207851	1/2 - 1 Mile WSW
14	CAOG9A000207798	1/2 - 1 Mile SE

PHYSICAL SETTING SOURCE MAP - 03628074.2r



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

0 1/4 1/2 1 Miles

Groundwater Flow Direction
GI Indeterminate Groundwater Flow at Location
GV Groundwater Flow Varies at Location
HD Closest Hydrogeological Data
Oil, gas or related wells

N

SITE NAME: Agricultural Properties ADDRESS: 7590 Lone Tree Way Brentwood CA 94513 LAT/LONG: 37.9625 / 121.7115	CLIENT: Bureau Veritas North America, Inc. CONTACT: Don Ashton INQUIRY #: 03628074.2r DATE: June 06, 2013 2:06 pm

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Map ID Direction Distance Elevation	Database	EDR ID Number
1 **NW** **0 - 1/8 Mile** **Higher**	**CA WELLS**	**60**

Water System Information:

Prime Station Code:	01N/02E-01E02 M	User ID:	07C
FRDS Number:	0707538001	County:	Contra Costa
District Number:	37	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	375749.0 1214243.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 01		
System Number:	0707538		
System Name:	KUTCH-RAGGEDY A & A PRESCHOOL		
Organization That Operates System:	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		

2 **SW** **0 - 1/8 Mile** **Higher**	**CA WELLS**	**61**

Water System Information:

Prime Station Code:	01N/02E-01E03 M	User ID:	07C
FRDS Number:	0706023001	County:	Contra Costa
District Number:	37	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	375741.0 1214243.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 01		
System Number:	0706023		
System Name:	MULLER UNITS		
Organization That Operates System:	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		

3 **NE** **1/8 - 1/4 Mile** **Lower**	**FED USGS**	**USGS40000186305**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-375753121422801		
Monloc name:	001N002E01F001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18040003	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.9646449
Longitude:	-121.7088422	Sourcemap scale:	24000

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	71.00
Vert measure units:	feet	Vertacc measure val:	2.5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Alluvium of the Coast Range, Younger (Pleistocene-Holocene)		
Aquifer type:	Not Reported		
Construction date:	19780418	Welldepth:	133
Welldepth units:	ft	Wellholedepth:	133
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

4
SSE **CA WELLS** **80**
1/4 - 1/2 Mile
Higher

Water System Information:

Prime Station Code:	01N/03E-06N03 M	User ID:	ENG
FRDS Number:	0710004008	County:	Contra Costa
District Number:	04	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	375730.0 1214225.0	Precision:	0.5 Mile (30 Seconds)
Source Name:	WELL 08		
System Number:	0710004		
System Name:	CITY OF BRENTWOOD		
Organization That Operates System:			
	708 THIRD STREET		
	BRENTWOOD 94513		
Pop Served:	8255	Connections:	2167
Area Served:	BRENTWOOD		
Sample Collected:	01/05/2011	Findings:	4. MG/L
Chemical:	NITRATE (AS NO3)		

5
NNW **FED USGS** **USGS40000186318**
1/4 - 1/2 Mile
Higher

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-375807121424801		
Monloc name:	001N002E02A001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18040003	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.9685337
Longitude:	-121.7143979	Sourcemap scale:	24000

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	81.00
Vert measure units:	feet	Vertacc measure val:	2.5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19750618	Welldepth:	125
Welldepth units:	ft	Wellholedepth:	165
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1975-06-18	62.00	

6
WSW
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000186286**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-375738121430601		
Monloc name:	001N002E02K001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18040003	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.9604784
Longitude:	-121.7193979	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	91.00
Vert measure units:	feet	Vertacc measure val:	2.5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19720519	Welldepth:	92
Welldepth units:	ft	Wellholedepth:	190
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1972-05-19	46.00	

7
ESE
1/2 - 1 Mile
Lower

FED USGS **USGS40000186270**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-375728121415901		
Monloc name:	001N002E01R002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18040003	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.9577007
Longitude:	-121.7007865	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	63.00
Vert measure units:	feet	Vertacc measure val:	2.5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19780528	Welldepth:	159
Welldepth units:	ft	Wellholedepth:	164
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

8
East
1/2 - 1 Mile
Lower

CA WELLS 77

Water System Information:

Prime Station Code:	01N/03E-06E02 M	User ID:	07C
FRDS Number:	0707510001	County:	Contra Costa
District Number:	37	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	375745.0 1214152.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 01		
System Number:	0707510		
System Name:	ALTES RESIDENTIAL HOME CARE		
Organization That Operates System:	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		

9
ESE
1/2 - 1 Mile
Lower

CA WELLS 64

Water System Information:

Prime Station Code:	01N/02E-01J05 M	User ID:	07C
FRDS Number:	0706001001	County:	Contra Costa
District Number:	37	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	375736.0 1214151.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 01		

System Number:	0706001		
System Name:	CHAKEDIS WATER SYSTEM		
Organization That Operates System:	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		

10
East
1/2 - 1 Mile
Lower

CA WELLS **63**

Water System Information:

Prime Station Code:	01N/02E-01J04 M	User ID:	07C
FRDS Number:	0707520001	County:	Contra Costa
District Number:	37	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	375737.0 1214145.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 01		
System Number:	0707520		
System Name:	DOMINGUEZ SMALL WATER SYSTEM		
Organization That Operates System:	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		

A11
ESE
1/2 - 1 Mile
Lower

FED USGS **USGS40000186272**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-375730121414601		
Monloc name:	001N002E01R001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18040003	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.9582563
Longitude:	-121.6971754	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	73.00
Vert measure units:	feet	Vertacc measure val:	2.5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19780528	Welldepth:	152
Welldepth units:	ft	Wellholedepth:	180
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

Map ID Direction Distance Elevation	Database	EDR ID Number
A12 **ESE** **1/2 - 1 Mile** **Lower**	**FED USGS**	**USGS40000186275**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-375731121414501		
Monloc name:	001N002E01J002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18040003	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.958534
Longitude:	-121.6968976	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	75.00
Vert measure units:	feet	Vertacc measure val:	2.5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19780528	Welldepth:	134
Welldepth units:	ft	Wellholedepth:	136
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

B13 **East** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADW50000030847**

Latitude :	37.962003		
Longitude :	121.695675		
Site code:	379620N1216957W001	Casgem sta:	01N03E06E999M
Local well:	#14 MW-324	Casgem s 1:	Observation
County id:	7		
Basin cd:	5-22.15	Basin desc:	Tracy
Org unit n:	North Central Region Office	Site id:	CADW50000030847

B14 **East** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADW50000030848**

Latitude :	37.962003		
Longitude :	121.695675		
Site code:	379620N1216957W002	Casgem sta:	01N03E06E998M
Local well:	#14 MW-240	Casgem s 1:	Observation
County id:	7		
Basin cd:	5-22.15	Basin desc:	Tracy
Org unit n:	North Central Region Office	Site id:	CADW50000030848

Map ID Direction Distance Elevation	Database	EDR ID Number
B15 **East** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADW50000030849**

Latitude :	37.962003		
Longitude :	121.695675		
Site code:	379620N1216957W003	Casgem sta:	01N03E06E997M
Local well:	#14 MW-154	Casgem s 1:	Observation
County id:	7		
Basin cd:	5-22.15	Basin desc:	Tracy
Org unit n:	North Central Region Office	Site id:	CADW50000030849

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16 **North** **1/2 - 1 Mile** **Higher**	**FED USGS**	**USGS40000186360**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-375831121424001		
Monloc name:	002N002E36M001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18040003	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.9752002
Longitude:	-121.7121757	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	74.00
Vert measure units:	feet	Vertacc measure val:	2.5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Dune Sand		
Aquifer type:	Not Reported		
Construction date:	19730305	Welldepth:	130
Welldepth units:	ft	Wellholedepth:	141
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

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17 **SSE** **1/2 - 1 Mile** **Lower**	**FED USGS**	**USGS40000186246**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-375704121420701		
Monloc name:	001N002E12G001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18040003	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.9510342
Longitude:	-121.7030087	Sourcemap scale:	24000

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	66.00
Vert measure units:	feet	Vertacc measure val:	2.5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19730716	Welldepth:	110
Welldepth units:	ft	Wellholedepth:	160
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1973-07-16	28.00	

18
East
1/2 - 1 Mile
Lower

CA WELLS 62

Water System Information:

Prime Station Code:	01N/02E-01J03 M	User ID:	07C
FRDS Number:	0707524001	County:	Contra Costa
District Number:	37	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	375740.0 1214136.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 01		
System Number:	0707524		
System Name:	SHORT STOP #151		
Organization That Operates System:	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		

19
ENE
1/2 - 1 Mile
Lower

CA WELLS 76

Water System Information:

Prime Station Code:	01N/03E-06D03 M	User ID:	07C
FRDS Number:	0707513001	County:	Contra Costa
District Number:	37	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	375803.0 1214139.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 01		
System Number:	0707513		
System Name:	MAEDA APTS.		
Organization That Operates System:	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		

Map ID Direction Distance Elevation	Database	EDR ID Number
20 **NE** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**1690**

Water System Information:

Prime Station Code:	02N/02E-36R01 M	User ID:	07C
FRDS Number:	0706003001	County:	Contra Costa
District Number:	37	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	375817.0 1214149.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 01		
System Number:	0706003		
System Name:	BROWN WATER SYSTEM		
Organization That Operates System:			
	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		

21 **SSE** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**79**

Water System Information:

Prime Station Code:	01N/03E-06N02 M	User ID:	ENG
FRDS Number:	0710004007	County:	Contra Costa
District Number:	04	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	375656.0 1214225.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 07		
System Number:	0710004		
System Name:	CITY OF BRENTWOOD		
Organization That Operates System:			
	708 THIRD STREET BRENTWOOD 94513		
Pop Served:	8255	Connections:	2167
Area Served:	BRENTWOOD		
Sample Collected:	02/16/2011	Findings:	1.47 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	02/16/2011	Findings:	0.915 PCI/L
Chemical:	GROSS BETA COUNTING ERROR		
Sample Collected:	02/16/2011	Findings:	1500. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	02/16/2011	Findings:	7.9
Chemical:	PH, LABORATORY		
Sample Collected:	02/16/2011	Findings:	200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	02/16/2011	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	02/16/2011	Findings:	350. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	02/16/2011	Findings:	79. MG/L
Chemical:	CALCIUM		
Sample Collected:	02/16/2011	Findings:	37. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	02/16/2011	Findings:	170. MG/L
Chemical:	SODIUM		
Sample Collected:	02/16/2011	Findings:	3.1 MG/L
Chemical:	POTASSIUM		
Sample Collected:	02/16/2011	Findings:	110. MG/L
Chemical:	CHLORIDE		
Sample Collected:	02/16/2011	Findings:	0.29 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	02/16/2011	Findings:	2.7 UG/L
Chemical:	ARSENIC		
Sample Collected:	02/16/2011	Findings:	1500. UG/L
Chemical:	BORON		
Sample Collected:	02/16/2011	Findings:	7.9 UG/L
Chemical:	VANADIUM		
Sample Collected:	02/16/2011	Findings:	11. UG/L
Chemical:	SELENIUM		
Sample Collected:	02/16/2011	Findings:	890. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	02/16/2011	Findings:	1.2
Chemical:	LANGELIER INDEX @ 60 C		
Sample Collected:	02/16/2011	Findings:	5.8 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	02/16/2011	Findings:	5500. UG/L
Chemical:	CARBON DIOXIDE		
Sample Collected:	02/16/2011	Findings:	0.12 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	02/16/2011	Findings:	13.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	02/16/2011	Findings:	1300. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	06/27/2012	Findings:	1700. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	06/27/2012	Findings:	8.
Chemical:	PH, LABORATORY		
Sample Collected:	06/27/2012	Findings:	180. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		

Sample Collected:	06/27/2012	Findings:	220. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	06/27/2012	Findings:	370. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	06/27/2012	Findings:	82. MG/L
Chemical:	CALCIUM		
Sample Collected:	06/27/2012	Findings:	39. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	06/27/2012	Findings:	220. MG/L
Chemical:	SODIUM		
Sample Collected:	06/27/2012	Findings:	3.2 MG/L
Chemical:	POTASSIUM		
Sample Collected:	06/27/2012	Findings:	290. MG/L
Chemical:	CHLORIDE		
Sample Collected:	06/27/2012	Findings:	0.38 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	06/27/2012	Findings:	2.5 UG/L
Chemical:	ARSENIC		
Sample Collected:	06/27/2012	Findings:	9.7 UG/L
Chemical:	SELENIUM		
Sample Collected:	06/27/2012	Findings:	1100. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	06/27/2012	Findings:	5.5 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06/27/2012	Findings:	0.13 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	06/27/2012	Findings:	13.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	06/27/2012	Findings:	1200. UG/L
Chemical:	NITRATE + NITRITE (AS N)		

22
ENE
1/2 - 1 Mile
Lower

FED USGS **USGS40000186322**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-375810121414001		
Monloc name:	002N003E31N001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18040003	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.9693671
Longitude:	-121.6955088	Sourcemap scale:	24000

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	57.00
Vert measure units:	feet	Vertacc measure val:	2.5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19780309	Welldepth:	93
Welldepth units:	ft	Wellholedepth:	132
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1978-03-09	42.00	

Map ID
Direction
Distance

Database | EDR ID Number

1
NE
1/4 - 1/2 Mile

OIL_GAS **CAOG9A000207936**

Districtnu:	6	Apinumber:	01300250
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	Y	Wellstatus:	P
Operatorna:	Shell Western Exploration & Production Inc.		
Countyname:	Contra Costa	Fieldname:	Any Field
Areaname:	Any Area		
Section:	1		
Township:	01N	Range:	02E
Basemeridi:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	37.966623		
Glong:	-121.706314		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Cunha	Wellnumber:	1-1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000207936

2
SE
1/4 - 1/2 Mile

OIL_GAS **CAOG9A000207866**

Districtnu:	6	Apinumber:	01320239
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Venada National		
Countyname:	Contra Costa	Fieldname:	Oakley, South, Gas
Areaname:	Any Area		
Section:	1		
Township:	01N	Range:	02E
Basemeridi:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	37.957923		
Glong:	-121.705354		
Gissourcec:	hud		
Comments:	Status Code 007		
Leasename:	Prewett-Lamport	Wellnumber:	1-1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000207866

3
SSE
1/2 - 1 Mile

OIL_GAS **CAOG9A000207842**

Districtnu:	6	Apinumber:	01300251
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	Y	Wellstatus:	P
Operatorna:	Shell Western Exploration & Production Inc.		
Countyname:	Contra Costa	Fieldname:	Any Field
Areaname:	Any Area		
Section:	1		
Township:	01N	Range:	02E
Basemeridi:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	37.955573		
Glong:	-121.707354		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Prewett	Wellnumber:	3-1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000207842

4
WSW **OIL_GAS** **CAOG9A000207870**
1/2 - 1 Mile

Districtnu:	6	Apinumber:	01320181
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Venada National		
Countyname:	Contra Costa	Fieldname:	Any Field
Areaname:	Any Area		
Section:	2		
Township:	01N	Range:	02E
Basemeridi:	MD	Elevation:	102
Locationde:	Not Reported		
Glat:	37.958483		
Glong:	-121.720315		
Gissourcec:	hud		
Comments:	Status Code 007		
Leasename:	Fairview	Wellnumber:	2-1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000207870

5
SSE **OIL_GAS** **CAOG9A000207821**
1/2 - 1 Mile

Districtnu:	6	Apinumber:	01320359
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	Y	Wellstatus:	P
Operatorna:	Production Specialties Company		
Countyname:	Contra Costa	Fieldname:	Any Field
Areaname:	Any Area		
Section:	12		
Township:	01N	Range:	02E
Basemeridi:	MD	Elevation:	83
Locationde:	Not Reported		
Glat:	37.953584		
Glong:	-121.706029		
Gissourcec:	hud		
Comments:	Status Code 007		
Leasename:	Disco Inferno	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000207821

6
NW
1/2 - 1 Mile

OIL_GAS **CAOG9A000207954**

Districtnu:	6	Apinumber:	01320183
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	Y	Wellstatus:	P
Operatorna:	Natural Gas Corp. of Calif.		
Countyname:	Contra Costa	Fieldname:	Any Field
Areaname:	Any Area		
Section:	35		
Township:	02N	Range:	02E
Basemeridi:	MD	Elevation:	99
Locationde:	Not Reported		
Glat:	37.969663		
Glong:	-121.721465		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Transamerica	Wellnumber:	58
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000207954

7
SSE
1/2 - 1 Mile

OIL_GAS **CAOG9A000207806**

Districtnu:	6	Apinumber:	01320230
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Reichhold Energy Corp.		
Countyname:	Contra Costa	Fieldname:	Any Field
Areaname:	Any Area		
Section:	12		
Township:	01N	Range:	02E
Basemeridi:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	37.952223		
Glong:	-121.706844		
Gissourcec:	hud		
Comments:	Status Code 007		
Leasename:	S & S Farms	Wellnumber:	12-1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000207806

A8
ESE
1/2 - 1 Mile

OIL_GAS **CAOG9A000207859**

Districtnu:	6	Apinumber:	01320092
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	Y	Wellstatus:	P
Operatorna:	Conoco Inc.		
Countyname:	Contra Costa	Fieldname:	Any Field
Areaname:	Any Area		
Section:	1		
Township:	01N	Range:	02E
Basemeridi:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	37.957473		
Glong:	-121.698974		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Marsh Creek Unit B	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000207859

9
SW
1/2 - 1 Mile

OIL_GAS **CAOG9A000207834**

Districtnu:	6	Apinumber:	01320288
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	TXO Production Corp.		
Countyname:	Contra Costa	Fieldname:	Any Field
Areaname:	Any Area		
Section:	2		
Township:	01N	Range:	02E
Basemeridi:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	37.954703		
Glong:	-121.721985		
Gissourcec:	hud		
Comments:	Status Code 007		
Leasename:	Shaffer	Wellnumber:	2-1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000207834

A10
ESE
1/2 - 1 Mile

OIL_GAS **CAOG9A000207858**

Districtnu:	6	Apinumber:	01320205
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	A
Operatorna:	Venoco, Inc.		
Countyname:	Contra Costa	Fieldname:	Oakley, South, Gas
Areaname:	Any Area		
Section:	1		
Township:	01N	Range:	02E
Basemeridi:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	37.957335		
Glong:	-121.698462		
Gissourcec:	gps		
Comments:	GPS Date 02/18/1999, Status Code 017		
Leasename:	NGC-Cesa	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	ADG	Site id:	CAOG9A000207858

11
WNW
1/2 - 1 Mile

OIL_GAS **CAOG9A000207942**

Districtnu:	6	Apinumber:	01300252
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	Y	Wellstatus:	P
Operatorna:	Shell Western Exploration & Production Inc.		
Countyname:	Contra Costa	Fieldname:	River Break Gas
Areaname:	South		
Section:	2		
Township:	01N	Range:	02E
Basemeridi:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	37.967863		
Glong:	-121.726855		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Carpenter	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000207942

12
NNE
1/2 - 1 Mile

OIL_GAS **CAOG9A000207984**

Districtnu:	6	Apinumber:	01320237
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Western Continental Operating Company		
Countyname:	Contra Costa	Fieldname:	Any Field
Areaname:	Any Area		
Section:	36		
Township:	02N	Range:	02E
Basemeridi:	MD	Elevation:	70
Locationde:	Not Reported		
Glat:	37.975952		
Glong:	-121.707625		
Gissourcec:	hud		
Comments:	Status Code 007		
Leasename:	Arkoma-Sherman	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000207984

13
WSW
1/2 - 1 Mile

OIL_GAS **CAOG9A000207851**

Districtnu:	6	Apinumber:	01320280
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Western Continental Operating Company		
Countyname:	Contra Costa	Fieldname:	River Break Gas
Areaname:	South		
Section:	2		
Township:	01N	Range:	02E
Basemeridi:	MD	Elevation:	120
Locationde:	Not Reported		
Glat:	37.956415		
Glong:	-121.72746		
Gissourcec:	gps		
Comments:	GPS Date 04/15/1997, Status Code 116		
Leasename:	Martin	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDG	Site id:	CAOG9A000207851

14
SE
1/2 - 1 Mile

OIL_GAS **CAOG9A000207798**

Districtnu:	6	Apinumber:	01320097
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Conoco Inc.		
Countyname:	Contra Costa	Fieldname:	Oakley, South, Gas
Areaname:	Any Area		
Section:	12		
Township:	01N	Range:	02E
Basemeridi:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	37.951763		
Glong:	-121.699624		
Gissourcec:	hud		
Comments:	Status Code 007		
Leasename:	Marsh Creek Unit	Wellnumber:	2
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	/ /	Completion:	/ /
Gissymbol:	PDH	Site id:	CAOG9A000207798

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94513	5	0

Federal EPA Radon Zone for CONTRA COSTA County: 2

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 CONTRA COSTA COUNTY, CA

Number of sites tested: 55

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.760 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.300 pCi/L	100%	0%	0%
Basement	0.525 pCi/L	100%	0%	0%

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.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

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 Services
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 Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, 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.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Health Services
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.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

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.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

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 D

Klaudia Barberi, P.G. has 10 years of progressive experience as an Environmental Consultant. She has worked in the United States, Central and Eastern Europe, and Canada on projects such as subsurface soil, groundwater and soil vapor investigations; site and land use assessments; and groundwater resources and environmental planning assessments. Ms. Barberi has conducted over 100 Environmental Site Assessments during her career. She has been a consultant with AllWest Environmental since 2013 and has completed and reviewed nearly 30 ASTM compliant Environmental Site Assessment reports. Ms. Barberi's fields of competence include project management, preparation of technical reports, research and data management, management of field staff and subcontractors, oversight of field work and permitting, preparation and monitoring of project budgets, and writing proposals, work plans and health and safety plans. Ms. Barberi holds a Master of Science degree in Hydrogeochemistry and a Bachelor of Science degree in Honors Geology from the University of Waterloo, Canada, and received her Professional Geologist designation in California in 2008.

APPENDIX E

APPLICATION FOR AUTHORIZATION TO USE

REPORT TITLE: **ENVIRONMENTAL SITE ASSESSMENT**

7590, 7600 & 7650 Lone Tree Way
Brentwood, CA 94513

PROJECT NUMBER: 202142.20

To: AllWest Environmental, Inc.
2141 Mission Street, Suite 100
San Francisco, CA 94110

From (Applicant): _____

_____

_____

(Please clearly identify name and address of person/entity applying for permission to use or copy this document)

Ladies and Gentlemen:

Applicant states they have thoroughly reviewed the report and had the opportunity to discuss with AllWest the report's methodology, findings and conclusion(s).

Applicant hereby applies for permission to rely upon AllWest's work product, as described above, for the purpose of (state here the purpose for which you wish to rely upon the work product):

Applicant only can accept and rely upon AllWest work product under the strict understanding that Applicant is bound by all provisions in the General Conditions to the Work Authorization Agreement provided below. Every report, recommendation, finding, or conclusion issued by AllWest shall be subject to the limitations stated in the Agreement and subject report(s). If this is agreeable, please sign below and return one copy of this letter to us along with the applicable fees. Upon receipt and if acceptable, our signed letter will be returned. AllWest may withhold permission at its sole discretion or require additional re-use fees or terms.

FEES: A $1,850 coordination and reliance fee, payable in advance, will apply. If desired, for an additional $150 report reproduction fee, we will reissue the report in the name of the Applicant; the report date, however, will remain the same. All checks will be returned if your request for reliance is not approved.

REQUESTED BY	**APPROVED BY**
_____	**AllWest Environmental, Inc.**
Applicant Company	
_____	_____
Print Name and Title	Print Name and Title
_____	_____
Signature and Date	Signature and Date

GENERAL CONDITIONS TO THE WORK AUTHORIZATION AGREEMENT

It is hereby agreed that the Client retains AllWest to provide services as set forth in the Work Authorization attached hereto (the "Work"). This contract shall be controlled by the following terms and conditions, and these terms and conditions shall also control any further assignments performed pursuant to this Work Authorization. Client's signature on this Work Authorization constitutes Client's agreement to the all terms to this contract, including these General Conditions.

FEES AND COSTS

1. AllWest shall charge for work performed by its personnel at the rates identified in the Work Authorization. These rates are subject to reasonable increases by AllWest upon giving Client 30 days advance notice. Reimbursable Costs will be charged to the Client in addition to the fees for the basic services under this Agreement and all Additional Services (defined below) under the Agreement. Reimbursable Costs include, but are not limited to, expenses for travel, including transportation, meals, lodging, long distance telephone and other related expenses, as well as the costs of reproduction of all drawings for the Client's use, costs for specifications and type-written reports, permit and approval fees, automobile travel reimbursement, costs and fees of subcontractors, and soil and other materials testing. No overtime is accrued for time spent in travel. All costs incurred which relate to the services or materials provided by a contractor or subcontractor to AllWest shall be invoiced by AllWest on the basis of cost plus twenty percent (20%). Automobile travel reimbursement shall be at the rate of fifty- eight cents ($0.58) per mile. All other reimbursable costs shall be invoiced and billed by AllWest at the rate of 1.1 times the direct cost to AllWest. Reimbursable costs will be charged to the client only as outlined in the Work Authorization if the scope of work is for Phase I Environmental Site Assessment, Property Condition Assessment, Seismic Assessment or ALTA survey. Invoices for work performed shall be submitted monthly. Payment will be due upon receipt of invoice. Client shall pay interest on the balance of unpaid invoices which are overdue by more than 30 days, at a rate of 18% per annum as well as all attorney fees and costs incurred by AllWest to secure payment of unpaid invoices. AllWest may waive such fees at its sole discretion.

STANDARD OF CARE

2. AllWest will perform its work in accordance with the standard of care of its industry, as it is at the time of the work being performed, and applicable in the locale of the work being performed. AllWest makes no other warranties, express or implied regarding its work.

LIMITATION OF REMEDIES

3. Client expressly agrees that to the fullest extent permitted by law, Client's remedies for any liability incurred by AllWest, and/or its employees or agents, for any and all claims arising from AllWest's services, shall be $50,000 or its fees, whichever is greater.

Client may request a higher limitation of remedies, but must do so in writing. Upon such written request, AllWest may agree to increase this limit in exchange for a mutually negotiated higher fee commensurate with the increased risk to AllWest. Any such agreed increase in fee and limitation of remedies amount must be memorialized by written agreement which expressly amends the terms of this clause.

As used in this section, the term "limitation of remedies" shall apply to claims of any kind, including, but not limited to, claims brought in contract, tort, strict liability, or otherwise, for any and all injuries, claims, losses, expenses, or damages whatsoever arising out of or in any way related to AllWest's services or the services of AllWest's subcontractors, consultants, agents, officers, directors, and employees from any cause(s). AllWest shall not be liable for any claims of loss of profits or any other indirect, incidental, or consequential damages of any nature whatsoever. Client & AllWest have specifically negotiated this limitation.

INDEMNIFICATION

4. Notwithstanding any other provision of this Agreement, Client agrees, to the fullest extent permitted by law, to waive any claim against, release from any liability or responsibility for, and , indemnify and hold harmless AllWest, its employees, agents and sub-consultants (collectively, Consultant) from and against any and all damages, liabilities, claims, actions or costs of any kind, including reasonable attorney's fees and defense costs, arising or alleged to arise out of or to be in any way connected with the Project or the performance or non-performance of Consultant of any services under this Agreement, excepting only any such liabilities determined by a court or other forum of competent jurisdiction to have been caused by the negligence or willful misconduct of Consultant. This provision shall be in addition to any rights of indemnity that Consultant may have under the law and shall survive and remain in effect following the termination of this Agreement for any reason. Should any part of this provision be determined to be unenforceable, AllWest and Client agree that the rest of the provision shall apply to the maximum extent permitted by law. The Client's duty to defend AllWest shall arise immediately upon tender of any matter potentially covered by the above obligations to indemnify and hold harmless.

MEDIATION & JUDICIAL REFERENCE

5. In an effort to resolve any conflicts or disputes that arise regarding the performance of this agreement, the Client & AllWest agree that all such disputes shall be submitted to non-binding mediation, using a mutually agreed upon mediation service experienced in the resolution of construction disputes. Unless the parties mutually agree otherwise, such mediation shall be a condition precedent to the initiation of any other adjudicative proceedings. It is further agreed that any dispute that is not settled pursuant to such mediation shall be adjudicated by a court appointed referee in accordance with the Judicial Reference procedures as set forth in California Code of Civil Procedure Section 638 et seq. The parties hereby mutually agree to waive any right to a trial by jury regarding any dispute arising out of this agreement.

The parties further agree to include a similar mediation, Judicial Reference & waiver of jury trial provision in their agreements with other independent contractors & consultants retained for the project and require them to similarly agree to these dispute resolution procedures. The cost of said Mediation shall be split equally between the parties. This agreement to mediate shall be specifically enforceable under the prevailing law of the jurisdiction in which this agreement was signed.

HAZARDOUS WASTE

6. Client acknowledges that AllWest and its sub-contractors have played no part in the creation of any hazardous waste, pollution sources, nuisance, or chemical or industrial disposal problem, which may exist, and that AllWest has been retained for the sole purpose of performing the services set out in the scope of work within this Agreement, which may include, but is not necessarily limited to such services as assisting the Client in assessing any problem which may exist and in assisting the

Client in formulating a remedial program. Client acknowledges that while necessary for investigations, commonly used exploration methods employed by AllWest may penetrate through contaminated materials and serve as a connecting passageway between the contaminated material and an uncontaminated aquifer or groundwater, possibly inducing cross contamination. While back-filling with grout or other means, according to a state of practice design is intended to provide a seal against such passageway, it is recognized that such a seal may be imperfect and that there is an inherent risk in drilling borings of performing other exploration methods in a hazardous waste site.

AllWest will not sign or execute hazardous waste manifests or other waste tracking documents on behalf of Client unless Client specifically establishes AllWest as an express agent of Client under a written agency agreement approved by AllWest. In addition, Client agrees that AllWest shall not be required to sign any documents, no matter requested by whom, that would have the effect of AllWest providing any form of certification, guarantee, or warranty as to any matter or to opine on conditions for which the existence AllWest cannot ascertain. Client also agrees that it shall never seek or otherwise attempt to have AllWest provide any form of such certification, guarantee or warranty in exchange for resolution of any disputes between Client and AllWest, or as a condition precedent to making payment to AllWest for fees and costs owing under this Agreement.

Client understands and agrees that AllWest is not, and has no responsibility as, a generator, operator, treater, storer, transporter , arranger or disposer of hazardous or toxic substances found or identified at the site, including investigation-derived waste. The Client shall undertake and arrange for the removal, treatment, storage, disposal and/or treatment of hazardous material and investigation derived waste (such as drill cuttings) and further, assumes full responsibility for such wastes to the complete exclusion of any responsibility, duty or obligation upon AllWest. AllWest's responsibilities shall be limited to recommendations regarding such matters and assistance with appropriate arrangements if authorized by Client.

FORCE MAJUERE

7. Neither party shall be responsible for damages or delays in performance under this Agreement caused by acts of God, strikes, lockouts, accidents or other events or condition (other than financial inability) beyond the other Party's reasonable control.

TERMINATION

8. This Agreement may be terminated by either party upon ten (10) days' written notice should the other party substantially fail to perform in accordance with its duties and responsibilities as set forth in this Agreement and such failure to perform is through no fault of the party initiating the termination. Client agrees that if it chooses to terminate AllWest for convenience, and AllWest has otherwise satisfactorily performed its obligations under this Agreement to that point, AllWest shall be paid no less than eighty percent (80%) of the contract price, provided, however, that if AllWest shall have completed more than eighty percent of the Work at the time of said termination, AllWest shall be compensated as provided in the Work Authorization for all services performed prior to the termination date which fall within the scope of work described in the Work Authorization and may as well, at its sole discretion and in accordance with said Schedule of Fees, charge Client, and Client agrees to pay AllWest's reasonable costs and labor in winding up its files and removing equipment and other materials from the Project.

Upon notice of termination by Client to AllWest, AllWest may issue notice of such termination to other consultants, contractors, subcontractors and to governing agencies having jurisdiction over the Project, and take such other actions as are reasonably necessary in order to give notice that AllWest is no longer associated with the Project and to protect AllWest from claims of liability from the work of others.

DOCUMENTS

9. Any documents prepared by AllWest, including, but not limited to proposals, project specifications, drawings, calculations, plans and maps, and any ideas and designs incorporated therein, as well as any reproduction of the above are instruments of service and shall remain the property of AllWest and AllWest retains copyrights to these instruments of service. AllWest grants to Client a non-exclusive license to use these instruments of service for the purpose of completing and maintaining the Project. The Client shall be permitted to retain a copy of any instruments of service, but Client expressly agrees and acknowledges that the instruments of service may not be used by the Client on other projects, or for any other purpose, except the project for which they were prepared, unless Client first obtains a written agreement expanding the license to such use from AllWest, and with appropriate compensation to AllWest. Client further agrees that such instruments of service shall not be provided to any third parties without the express written permission of AllWest.

Client shall furnish, or cause to be furnished to AllWest all documents and information known to Client that relate to the identity, location, quantity, nature, or characteristics of any asbestos, PCBs, or any other hazardous materials or waste at, on or under the site. In addition, Client will furnish or cause to be furnished such reports, data, studies, plans, specifications, documents and other information on surface or subsurface site conditions, e.g., underground tanks, pipelines and buried utilities, required by AllWest for proper performance of its services. IF Client fails to provide AllWest with all hazardous material subject matter reports including geotechnical assessments in its possession during the period that AllWest is actively providing its services (including up to 30 days after its final invoice), Client shall release AllWest from any and all liability for risks and damages the Client incurs resulting from its reliance on AllWest's professional opinion. AllWest shall be entitled to rely upon Client - provided documents and information in performing the services required in this Agreement; however, AllWest assumes no responsibility or liability for the accuracy or completeness of Client-provided documents. Client-provided documents will remain the property of the Client.

ACCESS TO PROJECT

10. Client grants to AllWest the right of access and entry to the Project at all times necessary for AllWest to perform the Work. If Client is not the owner of the Project, then Client represents that Client has full authority to grant access and right of entry to AllWest for the purpose of AllWest's performance of the Work. This right of access and entry extends fully to any agents, employees, contractors or subcontractors of AllWest upon reasonable proof of association with AllWest. Client's failure to provide such timely access and permission shall constitute a material breach of this Agreement excusing AllWest from performance of its duties under this Agreement.

CONFIDENTIAL INFORMATION

11. Both Client and AllWest understand that in conjunction with AllWest's performance of the Work on the project, both Client and AllWest may receive or be exposed to Proprietary Information of the other. As used herein, the term "Proprietary Information" refers to any and all information of a confidential, proprietary or secret nature which may be either applicable to, or relate in any way to: (a) the personal, financial or other affairs of the business of each of the Parties, or (b) the

research and development or investigations of each of the Parties. Proprietary Information includes, for example and without limitation, trade secrets, processes, formulas, data, know-how, improvements, inventions, techniques, software technical data, developments, research projects, plans for future development, marketing plans and strategies. Each of the Parties agrees that all Proprietary Information of the other party is and shall remain exclusively the property of that other party. The parties further acknowledge that the Proprietary Information of the other party is a special, valuable and unique asset of that party, and each of the Parties agrees that at all times during the terms of this Agreement and thereafter to keep in confidence and trust all Proprietary Information of the other party, whether such Proprietary Information was obtained or developed by the other party before, during or after the term of this Agreement. Each of the Parties agrees not to sell, distribute, disclose or use in any other unauthorized manner the Proprietary Information of the other party. AllWest further agrees that it will not sell, distribute or disclose information or the results of any testing obtained by AllWest during the performance of the Work without the prior written approval of Client unless required to do so by federal, state or local statute, ordinance or regulation.

INDEPENDENT CONTRACTOR

12. Both Client and AllWest agree that AllWest is an independent contractor in the performance of the Work under this Agreement. All persons or parties employed by AllWest in connection with the Work are the agents, employees or subcontractors of AllWest and not of Client. Accordingly, AllWest shall be responsible for payment of all taxes arising out of AllWest's activities in performing the Work under this Agreement.

ENTIRE AGREEMENT

13. This Agreement contains the entire agreement between the Parties pertaining to the subject matter contained in it and supersedes and replaces in its entirety all prior and contemporaneous proposals, agreements, representations and understandings of the Parties. The Parties have carefully read and understand the contents of this Agreement and sign their names to the same as their own free act.

INTEGRATION

14. This is a fully integrated Agreement. The terms of this Agreement may be modified only by a writing signed by both Parties. The terms of this Agreement were fully negotiated by the Parties and shall not be construed for or against the Client or AllWest but shall be interpreted in accordance with the general meaning of the language in an effort to reach the intended result.

MODIFICATION / WAIVER / PARTIAL INVALIDITY

15. Failure on the part of either party to complain of any act or omission of the other, or to declare the other party in default, shall not constitute a waiver by such party of its rights hereunder. If any provision of this Agreement or its application be unenforceable to any extent, the Parties agree that the remainder of this Agreement shall not be affected and shall be enforced to the greatest extent permitted by law.

INUREMENT / TITLES

16. Subject to any restrictions on transfers, assignments and encumbrances set forth herein, this Agreement shall inure to the benefit of and be binding upon the undersigned Parties and their respective heirs, executors, legal representatives, successors and assigns. Paragraph titles or captions contained in this Agreement are inserted only as a matter of convenience, and for reference only, and in no way limit, define or extend the provisions of any paragraph. , et al., incurred in that action or proceeding, in addition to any other relief to which it or they may be entitled.

AUTHORITY

17. Each of the persons executing this Agreement on behalf of a corporation does hereby covenant and warrant that the corporation is duly authorized and existing under the laws of its respective state of incorporation, that the corporation has and is qualified to do business in its respective state of incorporation, that the corporation has the full right and authority to enter into this Agreement, and that each person signing on behalf of the corporation is authorized to do so. If the Client is a joint venture, limited liability company or a partnership, the signatories below warrant that said entity is properly and duly organized and existing under the laws of the state of its formation and pursuant to the organizational and operating document of the entity, and the laws of the state of its formation, said signatory has authority act on behalf of and commit the entity to this Agreement.

COUNTERPARTS

18. This Agreement may be signed in counterparts by each of the Parties hereto and, taken together, the signed counterparts shall constitute a single document.

THIRD PARTY BENEFICIARIES / CONTROLLING LAW

19. There are no intended third party beneficiaries of this Agreement. The services, data & opinions expressed by AllWest are for the sole use of the client, are for a particular project and may not be relied upon by anyone other than the client. This Agreement shall be controlled by the laws of the State of California and any action by either party to enforce this Agreement shall be brought in San Francisco County, California.

TIME BAR TO LEGAL ACTION

20. Any legal actions by either party against the other related to this Agreement, shall be barred after one year has passed from the time the claimant knew or should have known of its claim, and under no circumstances shall be initiated after two years have passed from the date by which AllWest completes its services.

Appendix F: Noise Report

Environmental Noise Assessment

7590 & 7650 Lone Tree Way Subdivision

City of Brentwood, California

July 26, 2022

Project #220702

Prepared for:

DE NOVO PLANNING GROUP

De Novo Planning Group
1020 Suncast Lane, Suite 106
El Dorado Hills, CA 95762

Prepared by:

Saxelby Acoustics LLC

Luke Saxelby, INCE Bd. Cert.
Principal Consultant
Board Certified, Institute of Noise Control Engineering (INCE)

(916) 760-8821
www.SaxNoise.com | Luke@SaxNoise.com
915 Highland Pointe Drive, Suite 250
Roseville, CA 95678

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INTRODUCTION

The 7590 & 7650 Lone Tree Way Subdivision project consists of the development of a 38-lot single-family subdivision on two parcels. The project is located along Lone Tree Way, east of O'Hara Avenue and west of Anderson Lane in the City of Brentwood, California.

Figure 1 shows the project site plan. **Figure 2** shows an aerial photo of the project site and noise measurement locations.

ENVIRONMENTAL SETTING

BACKGROUND INFORMATION ON NOISE

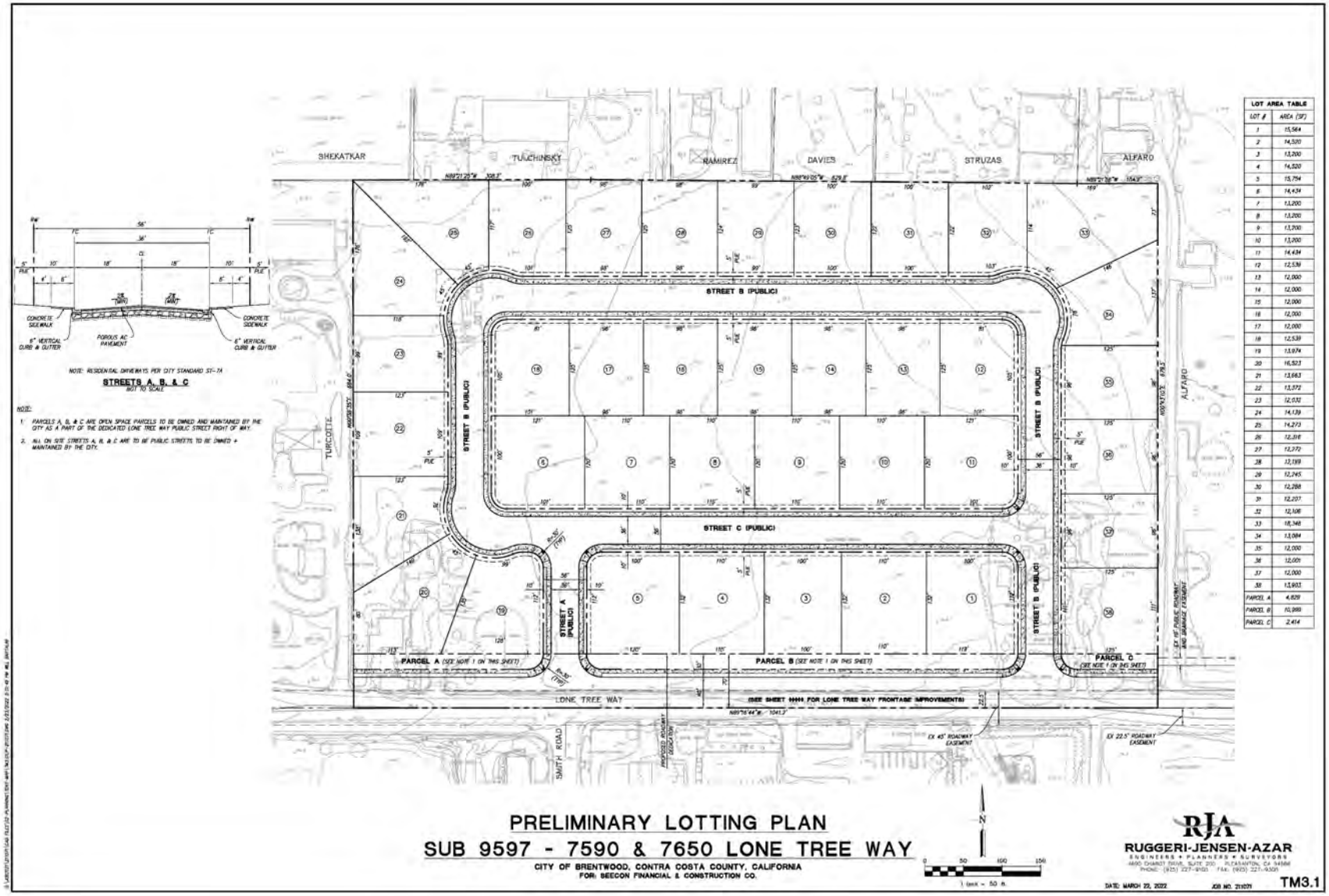
Fundamentals of Acoustics

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment.

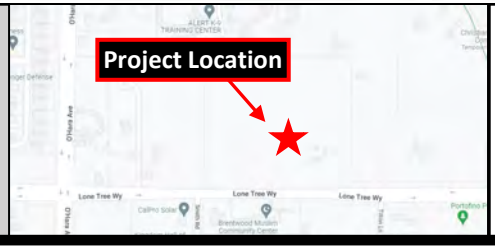


7590 & 7650 Lone Tree Way Subdivision

City of Brentwood, California

Figure 1

Project Site Plan



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City of Brentwood, California

Figure 2

Noise Measurement Sites

Legend

- Project Site
- Noise Measurement Site - Long Term
- Noise Measurement Site - Short Term

0 ft 100 ft 200 ft 300 ft

Projection: UTM Zone 10 / WGS84 / meters
Rev. Date: 07/20/2022

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The decibel scale is logarithmic, not linear. In other words, two sound levels 10-dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, 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.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The day/night average level (DNL or L_{dn}) is based upon the average noise level over a 24-hour day, with a +10-decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Table 1 lists several examples of the noise levels associated with common situations. **Appendix A** provides a summary of acoustical terms used in this report.

TABLE 1: TYPICAL NOISE LEVELS

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft.)	--100--	
Gas Lawn Mower at 1 m (3 ft.)	--90--	
Diesel Truck at 15 m (50 ft.), at 80 km/hr. (50 mph)	--80--	Food Blender at 1 m (3 ft.) Garbage Disposal at 1 m (3 ft.)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft.)	--70--	Vacuum Cleaner at 3 m (10 ft.)
Commercial Area Heavy Traffic at 90 m (300 ft.)	--60--	Normal Speech at 1 m (3 ft.)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

Source: Caltrans, Technical Noise Supplement, Traffic Noise Analysis Protocol. September, 2013.

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1-dBA cannot be perceived;
- 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 human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6-dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

EXISTING AND FUTURE NOISE AND VIBRATION ENVIRONMENTS

EXISTING NOISE RECEPTORS

Some land uses are considered more sensitive to noise than others. Land uses often associated with sensitive receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Sensitive noise receptors may also include threatened or endangered noise sensitive biological species, although many jurisdictions have not adopted noise standards for wildlife areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise.

Sensitivity is a function of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities involved. In the vicinity of the project site, sensitive land uses include existing single-family residential uses located west, north, east, and south of the project site.

EXISTING GENERAL AMBIENT NOISE LEVELS

The existing noise environment in the project area is primarily defined traffic on Lone Tree Way directly south of the project site.

To quantify the existing ambient noise environment in the project vicinity, Saxelby Acoustics conducted continuous (24-hr.) noise level measurements at two locations on the project site and short-term noise level measurements at one location. Noise measurement locations are shown on **Figure 2**. A summary of the noise level measurement survey results is provided in **Table 2**. **Appendix B** contains the complete results of the noise monitoring.

The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value, denoted L_{max}, represents the highest noise level measured. The average value, denoted L_{eq}, represents the energy average of all of the noise received by the sound level meter microphone during the monitoring period. The median value, denoted L_{50}, represents the sound level exceeded 50 percent of the time during the monitoring period.

Larson Davis Laboratories (LDL) model 820 and 831 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with a CAL 200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

TABLE 2: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA

Location	Date	L_{dn}	Daytime L_{eq}	Daytime L_{50}	Daytime L_{max}	Nighttime L_{eq}	Nighttime L_{50}	Nighttime L_{max}
LT-1: 120 ft. to CL of Lone Tree Way	7/12/22 to 7/13/22	70	68	65	80	62	57	75
LT-2: 660 ft. to CL of Lone Tree Way	7/12/22 to 7/13/22	53	51	47	70	46	42	60
ST-1: 65 ft. to CL of Lone Tree Way	7/12/22	N/A	61	57	71	N/A	N/A	N/A

Notes:

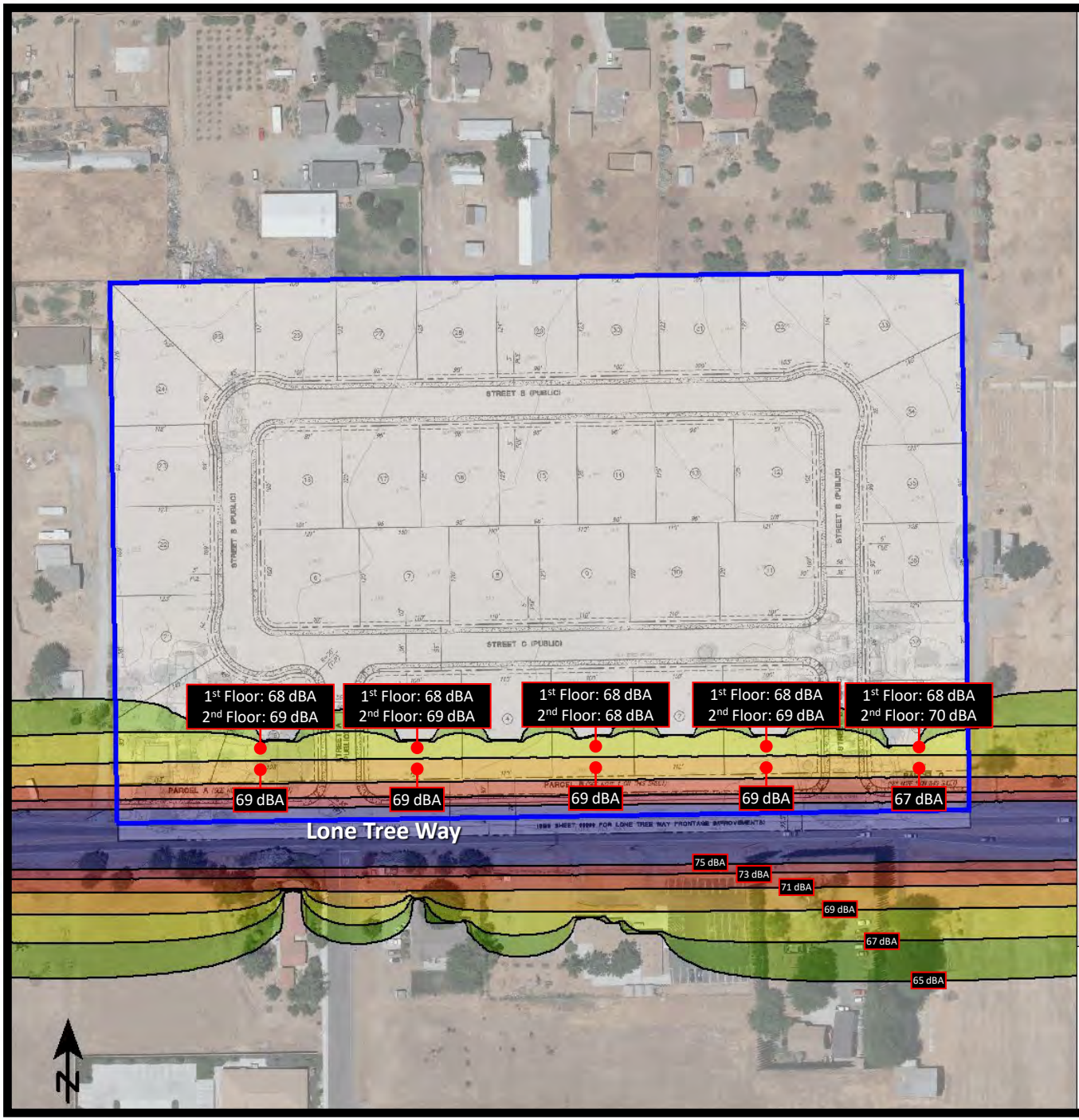
- *All values shown in dBA*
- *Daytime hours: 7:00 a.m. to 10:00 p.m.*
- *Nighttime Hours: 10:00 p.m. to 7:00 a.m.*
- *Source: Saxelby Acoustics 2022*

EVALUATION OF FUTURE TRANSPORTATION NOISE ON PROJECT SITE

Saxelby Acoustics used the SoundPLAN noise model to calculate traffic noise levels at the proposed residential uses due to traffic on Lone Tree Way. Inputs to the SoundPLAN noise model include topography, existing structures, roadway elevations, and the proposed building pad elevations. It was estimated that existing noise levels would increase by +1 dBA based upon an assumed 1% per year increase in traffic volumes on Lone Tree Way. The results of this analysis are shown graphically on **Figure 3**.

EVALUATION OF STATIONARY NOISE ON PROJECT SITE

The stationary noise environment at the project site primarily consists of noise emanating from the Alert K-9 Training Center located at the boundaries of proposed Lots 25-28. Saxelby Acoustics determined through ambient noise measurements that a peak hour of activity produced noise levels of 56 dBA L_{eq} and 79 dBA L_{max} at the property boundary of the proposed residential uses.



7590 & 7650 Lone Tree Way Subdivision

City of Brentwood, California

Figure 3

Future Transportation Noise Contours (dBA L_{dn})

Signs and symbols

Project Boundary

Levels in dB(A)

- <= 65
- 65 - 67
- 67 - 69
- 69 - 71
- 71 - 73
- 73 - 75
- > 75

1 : 175

0 45 90 180 270 360 feet

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CONSTRUCTION NOISE ENVIRONMENT

During the construction of the proposed project, including roads, water and sewer lines, and related infrastructure, noise from construction activities would temporarily add to the noise environment in the project vicinity. As shown in **Table 3**, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet.

TABLE 3: CONSTRUCTION EQUIPMENT NOISE

Type of Equipment	Maximum Level, dBA at 50 feet
Auger Drill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

Source: *Roadway Construction Noise Model User's Guide*. Federal Highway Administration. FHWA-HEP-05-054. January 2006.

CONSTRUCTION VIBRATION ENVIRONMENT

The primary vibration-generating activities associated with the proposed project would occur during construction when activities such as grading, utilities placement, and parking lot construction occur. **Table 4** shows the typical vibration levels produced by construction equipment.

TABLE 4: VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT

Type of Equipment	Peak Particle Velocity at 25 feet (inches/second)	Peak Particle Velocity at 50 feet (inches/second)	Peak Particle Velocity at 100 feet (inches/second)
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210 (Less than 0.20 at 26 feet)	0.074	0.026

Source: *Transit Noise and Vibration Impact Assessment Guidelines.* Federal Transit Administration. May 2006.

REGULATORY CONTEXT

FEDERAL

There are no federal regulations related to noise that apply to the Proposed Project.

STATE

There are no state regulations related to noise that apply to the Proposed Project.

LOCAL

City of Brentwood General Plan

Policies

Policy N 1-1: Ensure the noise compatibility of existing and future development when making land use planning decisions.

Policy N 1-2: Require development and infrastructure projects to be consistent with the Land Use Compatibility for Community Noise Environments standards indicated in **Table N-1** to ensure acceptable noise levels for existing and future development.

Policy N 1-3: Require new development to mitigate excessive noise through best practices, including building location and orientation, building design features, placement of noise-generating equipment away from sensitive receptors, shielding of noise-generating equipment, placement of noise-tolerant features between noise sources and sensitive receptors, and use of noise-minimizing materials such as rubberized asphalt.

Policy N 1-7: For projects that are required by the California Environmental Quality Act (CEQA) to analyze noise impacts, the following criteria shall be used to determine the significance of those impacts:

Stationary and Non-Transportation Noise Sources

- A significant impact will occur if the project results in an exceedance of the noise level standards contained in this element, or the project will result in an increase in ambient noise levels by more than 3 dB, whichever is greater.

Transportation Noise Sources

- Where existing traffic noise levels are less than 60 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +5 dB L_{dn} increase in roadway noise levels will be considered significant; and

- Where existing traffic noise levels range between 60 and 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +3 dB L_{dn} increase in roadway noise levels will be considered significant; and

- Where existing traffic noise levels are greater than 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a + 1.5 dB L_{dn} increase in roadway noise levels will be considered significant.

Policy N 1-14: Ensure that new development does not result in indoor noise levels exceeding 45 dBA Ldn for residential uses.

Policy N 1-15: Require construction activities to comply with standard best practices (see Action N 1e).

Policy N 2-1: Recognizing that existing and future traffic noise along the State Route 4 corridor, major arterials within Brentwood, and noise from the UPRR are areas of potential land use conflict for existing and future development, reasonable use of this land will be allowed with an exterior noise exposure level not exceeding 65 dB Ldn. New development that includes noise-sensitive uses (i.e., residential) along the State Route 4 corridor, major arterials, and the UPRR should incorporate appropriate noise attenuation measures in order to maintain interior noise levels of 45 dB Ldn or less. Application of this noise standard is intended to provide for reasonable exterior noise levels while discouraging the use of excessively high and/or unattractive sound walls.

Action N 1e: *During the environmental review process, determine if proposed construction will constitute a significant impact on nearby residents and, if necessary, require mitigation measures in addition to the standard best practice controls. Suggested best practices for control of construction noise include:*

1. Construction period shall be less than 12 months.

2. Noise-generating construction activities, including truck traffic coming to and from the construction site for any purpose, shall be limited to between the hours of 7:00 am and 6:00 pm on weekdays, and between 8:00 am and 5:00 pm on Saturdays. No construction shall occur on Sundays or City holidays.

3. All equipment driven by internal combustion engines shall be equipped with mufflers, which are in good condition and appropriate for the equipment.

4. The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists.

5. At all times during project grading and construction, stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from residences.

6. Unnecessary idling of internal combustion engines shall be prohibited.

7. Construction staging areas shall be established at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction activities, to the extent feasible.

8. The required construction-related noise mitigation plan shall also specify that haul truck deliveries are subject to the same hours specified for construction equipment.

9. Neighbors located adjacent to the construction site shall be notified of the construction schedule in writing.

10. The construction contractor shall designate a "noise disturbance coordinator" who will be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall be responsible for determining the cause of the noise complaint (e.g., starting too early, poor muffler, etc.) and instituting reasonable measures as warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.

TABLE N-1 LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENT							
Land Use Category	Exterior Noise Exposure (Ldn)						
		55	60	65	70	75	80
Single-Family Residential							
Multi-Family Residential, Hotels, and Motels							
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds							
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches							
Office Buildings, Business Commercial, and Professional							
Industrial							

NORMALLY ACCEPTABLE

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special insulation requirements

CONDITIONALLY ACCEPTABLE

Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design

UNACCEPTABLE

New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies

Based upon **Table N-1** of the City of Brentwood General Plan, residential uses are considered normally acceptable in ambient noise environments up to 60 dBA L_{dn}, and conditionally acceptable in noise environments up to 75 dBA L_{dn}. However, policy N-1 limits exterior noise levels to 65 dBA L_{dn} for new residential uses adjacent to State Route 4 corridor, major arterials within Brentwood, and noise from the UPRR. The City of Brentwood also establishes an interior noise level criterion of 45 dBA L_{dn} for residential uses.

Table N-2 provides the noise level performance criteria for residential uses affected by non-transportation noise sources, such as Canine Training Facilities. These criteria are applied at the property lines of noise-sensitive land uses or a designated outdoor activity area at the discretion of the Community Development Director.

TABLE N-2: STATIONARY (NON-TRANSPORTATION NOISE SOURCE STANDARDS)

Land Use Receiving the Noise	Hourly Noise Level Descriptor	Exterior Noise-Level Standard (dBA)	
		Daytime Maximum (7 am - 10 pm)	Nighttime Maximum (10 pm - 7 am)
Residential	L_{eq}	55	45
	L_{max}	70	65

Notes:
a) The residential standards apply to all properties that are zoned for residential use. The exterior noise level standard is to be applied at the property line of the receiving land use or at a designated outdoor activity area (at the discretion of the Community Development Director) of the new development. For mixed-use projects, the exterior noise level standard may be waived (at the discretion of the Community Development Director) if the project does not include a designated activity area and mitigation of property line noise is not practical. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings). The City can impose standards that are more restrictive than specified above based upon determination of existing low ambient noise levels.
b) Each of the noise levels specified above shall be lowered by 5 dBA for tonal noises characterized by a whine, screech, or hum, noises consisting primarily of speech or music, or recurring impulsive noises. In no case shall mitigation be required to a level that is less than existing ambient noise levels, as determined through measurements conducted during the same operational period as the subject noise source.
c) In situations where the existing noise level exceeds the noise levels indicated in the above table, any new noise source must include mitigation that reduces the noise level of the noise source to the existing level plus 3 dB.
d) Exterior noise exposure level not exceeding 65 dB Ldn is allowed along the State Route 4 corridor, the Union Pacific Railroad corridor, and arterial roadways.

Based upon the footnote in **Table N-2**, the City of Brentwood provides a 5 dB penalty to noise consisting primarily of speech or recurring impusive noises. For example, the consistant barking of dogs will induce a 5 dB penalty to the Non-Transportation Noise Source Standard. Project-related noise levels would be required to not exceed 50 dBA L_{eq} at the nearest existing residential uses in the project vicinity during daytime (7:00 a.m. to 10:00 p.m.) operations.

Criteria for Acceptable Vibration

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. **Table 5**, which was developed by Caltrans, shows the vibration levels which would normally be required to result in damage to structures. The vibration levels are presented in terms of peak particle velocity in inches per second.

Table 5 indicates that the threshold for architectural damage to structures is 0.20 in/sec p.p.v. A threshold of 0.2 in/sec p.p.v. is considered to be a reasonable threshold for short-term construction projects.

TABLE 5: EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS

Peak Particle Velocity		Human Reaction	Effect on Buildings
mm/second	in/second		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: *Transportation Related Earthborne Vibrations.* Caltrans. TAV-02-01-R9601. February 20, 2002.

IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Appendix G of the CEQA Guidelines states that a project would normally be considered to result in significant noise impacts if noise levels conflict with adopted environmental standards or plans or if noise generated by the project would substantially increase existing noise levels at sensitive receivers on a permanent or temporary basis. Significance criteria for noise impacts are drawn from CEQA Guidelines Appendix G (Items XI [a-f]).

Would the project:

a. Generate 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?

b. Generate excessive groundborne vibration or groundborne noise levels?

c. 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?

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

Impact 1: ***Would the project generate 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?***

Traffic Noise Increases at Existing Sensitive Receptors

The proposed project is consistent with the City's General Plan and no traffic study was required for the project. Therefore, no substantial increases in traffic noise are predicted.

Operational Noise Increases at Existing Sensitive Receptors

The proposed project would include typical residential noise which would be compatible with the adjacent existing residential uses.

Construction Noise

During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. As indicated in **Table 3**, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dBA L_{max} at a distance of 50 feet. Most of the building construction would occur at distances of 50 feet or greater from the nearest residences. Construction noise associated with streets would be similar to noise that would be associated with public works projects, such as a roadway widening or paving projects.

Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

Noise would also be generated during the construction phase by increased truck traffic on area roadways. A project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from the construction site. This noise increase would be of short duration, and would likely occur primarily during daytime hours.

Construction activities are conditionally exempt from the Noise Ordinance during certain hours. Construction activities are exempt from the noise standard from 6 AM to 8 PM Monday through Friday, and from 7 AM to 8 PM on Saturdays and Sundays.

Although construction activities are temporary in nature and would likely occur during normal daytime working hours, construction-related noise could result in sleep interference at existing noise-sensitive land uses in the vicinity of the construction if construction activities were to occur outside the normal daytime hours. Therefore, impacts resulting from noise levels temporarily exceeding the threshold of significance due to construction would be considered ***potentially significant***.

Transportation and Stationary Noise on Project Site (Non-CEQA Issue)

Transportation Noise at New Sensitive Receptors – Exterior Areas

Compliance with City's standards on new noise-sensitive receptors is not a CEQA consideration. However, this information is provided here so that a determination can be made regarding the ability of the proposed project to meet the requirements of the City of Brentwood for exterior and interior noise levels at new sensitive uses proposed under the project.

As shown on **Figure 3**, the project site is predicted to be exposed to exterior noise levels up to approximately 69 dBA L_{dn}. This would exceed the City of Brentwood 65 dB L_{dn} Community Noise Exposure standards for new developments in the vicinity of major arterial roadways. Therefore, exterior noise control measures would be required to ensure that future residents are not exposed to exterior noise levels exceeding City standards. Specifically, 8-foot-tall sound walls were analyzed at the location shown on **Figure 4.** Based upon the noise predictions shown on **Figure 4**, exterior noise levels would be reduced to 65 dBA L_{dn}, or less with use of these barriers.

Transportation Noise at New Sensitive Receptors – Interior Areas

Based upon **Figure 4**, the proposed project would be exposed to exterior noise levels of up to 64 dBA L_{dn} at the ground floor building facades closest to Lone Tree Way. Second floor locations would not receive substantial shielding from the 8-foot-tall sound wall and would be expected to be exposed to exterior noise levels of up to 69 dBA L_{dn}.

Modern building construction typically yields an exterior-to-interior noise level reduction of 25 dBA. Therefore, where exterior noise levels are 70 dBA L_{dn}, or less, no additional interior noise control measures are typically required. For this project, exterior noise levels are predicted to be up to 69 dBA L_{dn}, resulting in an interior noise level of 44 dBA L_{dn} based on typical building construction. This would meet the City's 45 dBA L_{dn} interior noise level standard.

Impacts resulting from exterior noise levels exceeding the threshold of significance due to interior traffic noise would be considered ***potentially significant***.

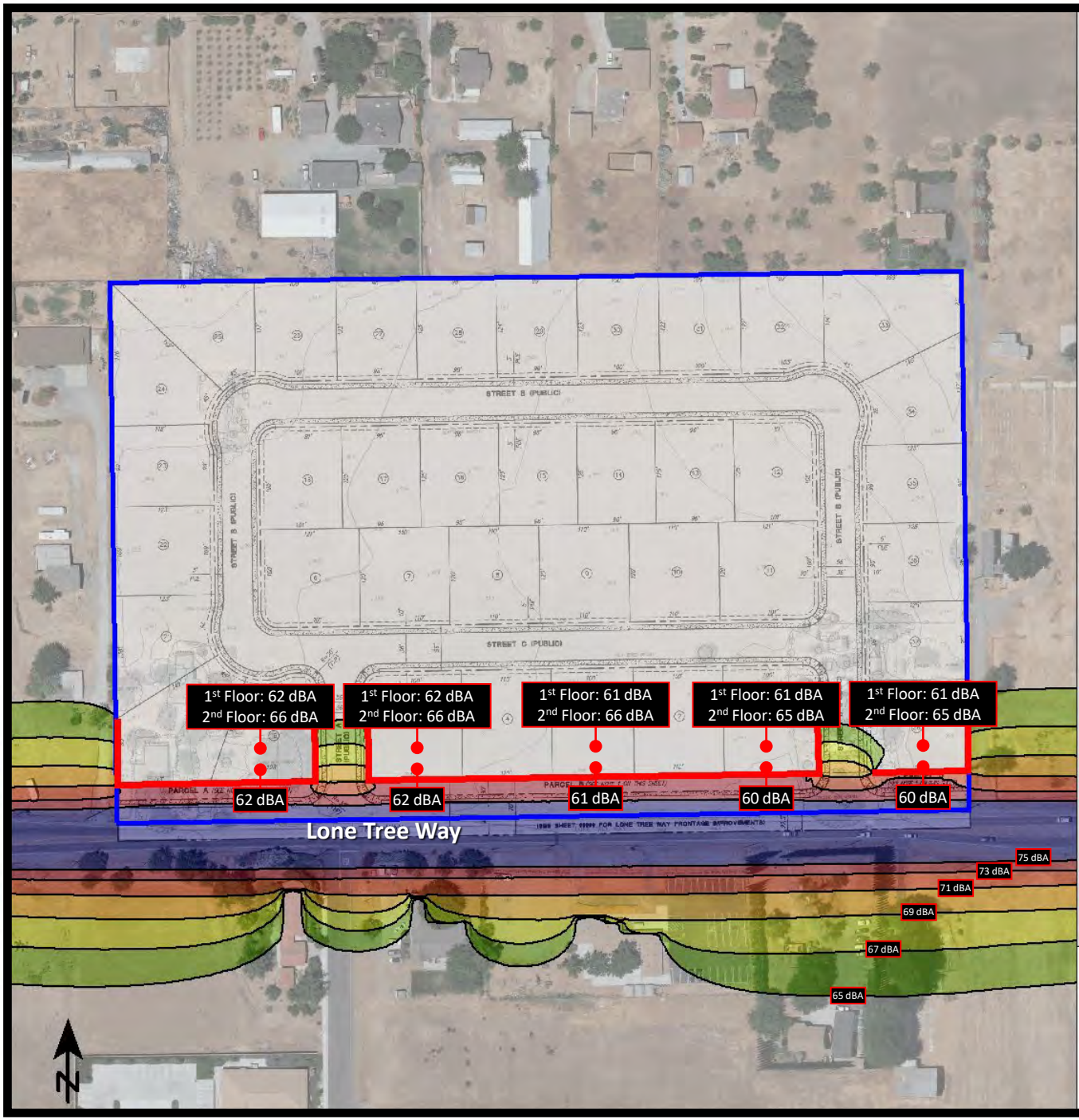
Stationary Noise at New Sensitive Receptors

Saxelby Acoustics determined that the Alert K-9 Training Center located north of Lots 25-28 could produce peak hour noise levels of 56 dBA L_{eq} and 79 dBA L_{max} during daytime (7:00 a.m. to 10:00 p.m.) hours. This exceeds the City of Brentwood daytime noise level standards of 50 dBA L_{eq} and 65 dBA L_{max} for impulsive noise sources. Therefore, additional noise control measures would be required to achieve compliance with the City's stationary noise level standards.

The City of Brentwood stationary noise level criteria states that "In no case shall mitigation be required to a level that is less than existing ambient noise levels, as determined through measurements conducted during the same operational period as the subject noise source." Based upon ambient noise level measurements at LT-2 summarized in **Table 2**, the average daytime noise levels at the project boundary are 51 dBA L_{eq} and 70 dBA L_{max}. It was assumed that operation of this business would not occur during

nighttime (10:00 p.m. to 7:00 a.m.) hours. Therefore, the project must comply with stationary noise level limits of 51 dBA L_{eq} and 70 dBA L_{max}.

To achieve compliance with the adjusted noise level standards, Saxelby Acoustics analyzed the effect of including a sound wall along the northern project boundary shielding lots 25-28 from the stationary noise source. It was determined that an 8-foot-tall sound wall would reduce stationary noise levels in the outdoor activity areas of the proposed residences to 47 dBA L_{eq} and 70 dBA L_{max}. **Appendix C** contains the full inputs and results of the barrier calculation. **Figure 5** shows the location of the recommended sound wall.



7590 & 7650 Lone Tree Way Subdivision

City of Brentwood, California

Figure 4

Future Transportation Noise Contours (dBA L_{dn}) -Noise Protection

Signs and symbols

Project Boundary

8-Foot Sound Wall

Levels in dB(A)

<= 65
65 - 67
67 - 69
69 - 71
71 - 73
73 - 75
> 75

1 : 175

0 45 90 180 270 360 feet

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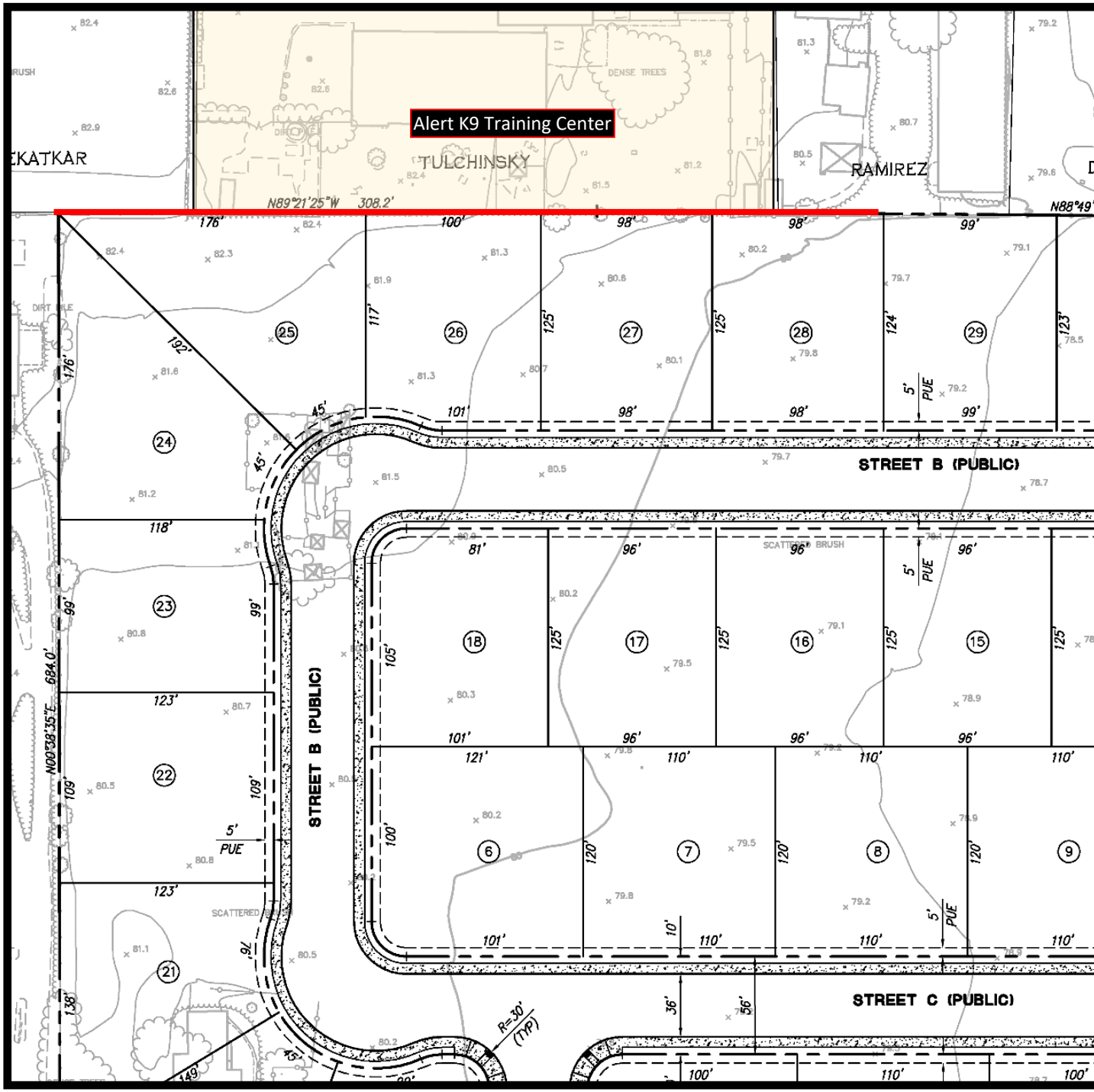

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City of Brentwood, California

Figure 5

Stationary Noise Control Measures

Legend

- 8-foot Wall
- Alert K9 Training Center

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Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

1(a) *Construction activities shall be limited to the hours set forth below:*

Monday-Friday 7:00 AM to 6:00 PM
Saturday 8:00 AM to 5:00 PM

Construction shall be prohibited on Sundays and City holidays. These criteria shall be included in the grading plan submitted by the applicant/developer for review and approval of the Community Development Director prior to issuance of grading permits. Exceptions to allow expanded construction activities shall be reviewed on a case-by-case basis as determined by the Chief Building Official and/or City Engineer.

1(b) *The project contractor shall ensure that the following construction noise BMPs are met on-site during all phases of construction:*

- *All equipment driven by internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specifications. Mobile or fixed "package" equipment (e.g., arc welders, air compressors) shall be equipped with shrouds and noise- control features that are readily available for that type of equipment.*
- *All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.*
- *The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists.*
- *At all times during project grading and construction, stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from residences.*
- *Unnecessary idling of internal combustion engines shall be prohibited.*
- *Construction staging areas shall be established at locations that would create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction activities, to the extent feasible.*
- *Construction site and access road speed limits shall be established and enforced during the construction period.*
- *The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.*

- *Project-related public address or music systems shall not be audible at any adjacent receptor.*
- *Neighbors located adjacent to the construction site shall be notified of the construction schedule in writing.*
- *The construction contractor shall designate a "noise disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall be responsible for determining the cause of the noise complaint (e.g., starting too early, poor muffler, etc.) and instituting reasonable measures as warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.*

Construction noise BMPs shall be included in the grading plan submitted by the developer for review and approval by the Community Development Director prior to grading permit issuance.

Recommended Condition of Approval

Prior to approval of project improvement plans, the improvement plans for the proposed project shall show that the first row lots shall be shielded from the Lone Tree Way through the use of eight-foot-tall masonry sound walls per the approval of the City Engineer. The approximate locations of these barriers are shown on **Figure 4**. Additionally, the project shall include an eight-foot-tall masonry sound wall at the location shown on **Figure 5** to shield proposed residences from stationary noise. Other types of barriers may be employed but shall be reviewed by an acoustical engineer prior to being constructed.

Impact 2: ***Would the project generate excessive groundborne vibration or groundborne noise levels?***

Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural.

The **Table 4** data indicate that construction vibration levels anticipated for the project are less than the 0.2 in/sec threshold at distances of 26 feet. Sensitive receptors which could be impacted by construction related vibrations, especially vibratory compactors/rollers, are located approximately 26 feet, or further, from typical construction activities. At these distances construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours.

This is a **less-than-significant** impact, and no mitigation is required.

Impact 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?***

There are no airports in the project vicinity. Therefore, this impact is not applicable to the proposed project.

REFERENCES

American National Standards Institute. (1998). *[Standard] ANSI S1.43-1997 (R2007): Specifications for integrating-averaging sound level meters*. New York: Acoustical Society of America.

American Standard Testing Methods, *Standard Guide for Measurement of Outdoor A-Weighted Sound Levels, American Standard Testing Methods (ASTM) E1014-08*, 2008.

ASTM E1014-12. *Standard Guide for Measurement of Outdoor A-Weighted Sound Levels*. ASTM International. West Conshohocken, PA. 2012.

ASTM E1780-12. *Standard Guide for Measuring Outdoor Sound Received from a Nearby Fixed Source.* ASTM International. West Conshohocken, PA. 2012.

Barry, T M. (1978). *FHWA highway traffic noise prediction model* (FHWA-RD-77-108). Washington, DC: U.S. Department of transportation, Federal highway administration, Office of research, Office of environmental policy.

California Department of Transportation (Caltrans), *Technical Noise Supplement, Traffic Noise Analysis Protocol*, September 2013.

Egan, M. D. (1988). Architectural acoustics. United States of America: McGraw-Hill Book Company.

Federal Highway Administration. *FHWA Roadway Construction Noise Model User's Guide.* FHWA-HEP-05-054 DOT-VNTSC-FHWA-05-01. January 2006.

Hanson, Carl E. (Carl Elmer). (2006). *Transit noise and vibration impact assessment*. Washington, DC: U.S. Department of Transportation, Federal Transit Administration, Office of Planning and Environment.

International Electrotechnical Commission. Technical committee 29: Electroacoustics. International Organization of Legal Metrology. (2013). *Electroacoustics: Sound level meters*.

International Organization for Standardization. (1996). *Acoustic - ISO 9613-2: Attenuation of sound during propagation outdoors. Part 2: General methods of calculation*. Ginevra: I.S.O.

Miller, L. N., Bolt, Beranek, & and Newman, Inc. (1981). *Noise control for buildings and manufacturing plants*. Cambridge, MA: Bolt, Beranek and Newman, Inc.

SoundPLAN. SoundPLAN GmbH. Backnang, Germany. http://www.soundplan.eu/english/

Appendix A: Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
ASTC	Apparent Sound Transmission Class. Similar to STC but includes sound from flanking paths and correct for room reverberation. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by +5 dBA and nighttime hours weighted by +10 dBA.
DNL	See definition of Ldn.
IIC	Impact Insulation Class. An integer-number rating of how well a building floor attenuates impact sounds, such as footsteps. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
Ldn	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
Leq	Equivalent or energy-averaged sound level.
Lmax	The highest root-mean-square (RMS) sound level measured over a given period of time.
L(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50% of the time during the one-hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
NIC	Noise Isolation Class. A rating of the noise reduction between two spaces. Similar to STC but includes sound from flanking paths and no correction for room reverberation.
NNIC	Normalized Noise Isolation Class. Similar to NIC but includes a correction for room reverberation.
Noise	Unwanted sound.
NRC	Noise Reduction Coefficient. NRC is a single-number rating of the sound-absorption of a material equal to the arithmetic mean of the sound-absorption coefficients in the 250, 500, 1000, and 2,000 Hz octave frequency bands rounded to the nearest multiple of 0.05. It is a representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.
RT60	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 Sabin.
SEL	Sound Exposure Level. SEL is a rating, in decibels, of a discrete event, such as an aircraft flyover or train pass by, that compresses the total sound energy into a one-second event.
SPC	Speech Privacy Class. SPC is a method of rating speech privacy in buildings. It is designed to measure the degree of speech privacy provided by a closed room, indicating the degree to which conversations occurring within are kept private from listeners outside the room.
STC	Sound Transmission Class. STC is an integer rating of how well a building partition attenuates airborne sound. It is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations. The STC rating is typically used to rate the sound transmission of a specific building element when tested in laboratory conditions where flanking paths around the assembly don't exist. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
Simple Tone	Any sound which can be judged as audible as a single pitch or set of single pitches.

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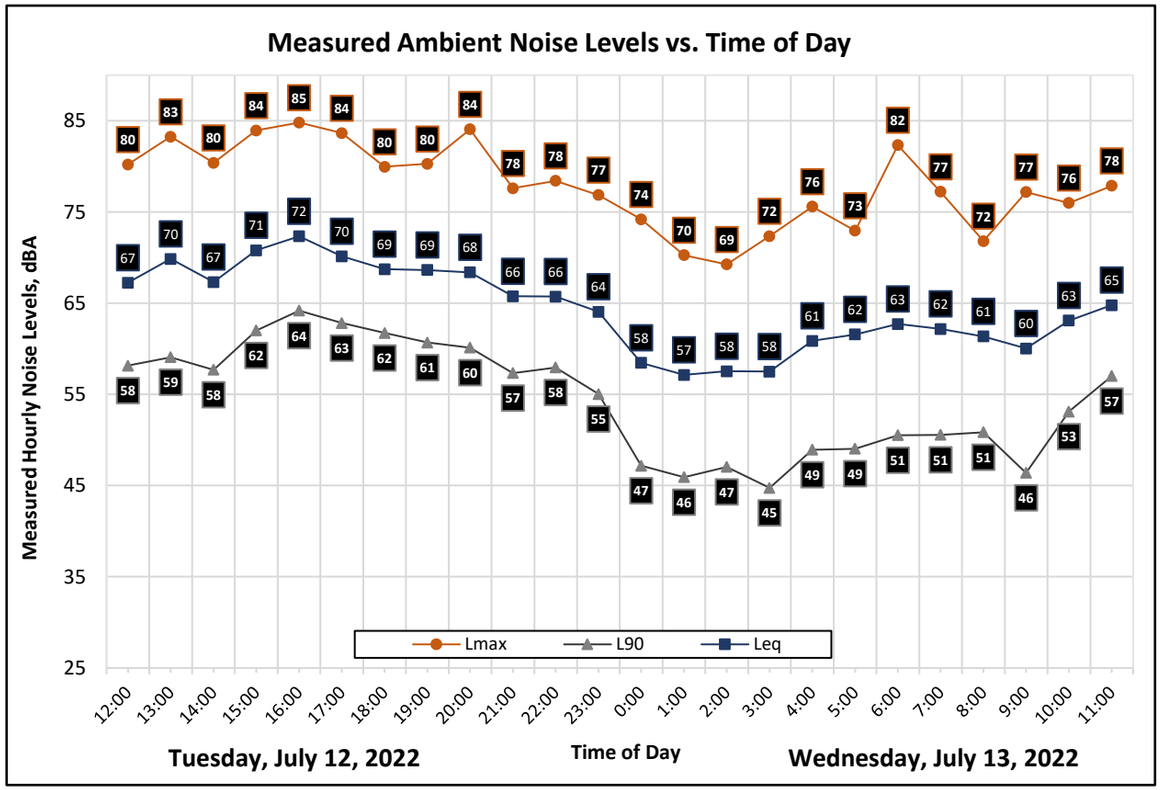
Appendix B: Continuous and Short-Term Ambient Noise Measurement Results

Appendix B1: Continuous Noise Monitoring Results

Site: LT-1
Project: 7590 & 7650 Lone Tree Way Subdivision
Meter: LDL 820-1
Location: Southern Project Boundary
Calibrator: CAL200
Coordinates: 37.9618942°, -121.7107785°

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Tuesday, July 12, 2022	12:00	67	80	65	58
Tuesday, July 12, 2022	13:00	70	83	67	59
Tuesday, July 12, 2022	14:00	67	80	65	58
Tuesday, July 12, 2022	15:00	71	84	68	62
Tuesday, July 12, 2022	16:00	72	85	70	64
Tuesday, July 12, 2022	17:00	70	84	68	63
Tuesday, July 12, 2022	18:00	69	80	67	62
Tuesday, July 12, 2022	19:00	69	80	67	61
Tuesday, July 12, 2022	20:00	68	84	66	60
Tuesday, July 12, 2022	21:00	66	78	64	57
Tuesday, July 12, 2022	22:00	66	78	64	58
Tuesday, July 12, 2022	23:00	64	77	62	55
Wednesday, July 13, 2022	0:00	58	74	54	47
Wednesday, July 13, 2022	1:00	57	70	54	46
Wednesday, July 13, 2022	2:00	58	69	54	47
Wednesday, July 13, 2022	3:00	58	72	52	45
Wednesday, July 13, 2022	4:00	61	76	56	49
Wednesday, July 13, 2022	5:00	62	73	58	49
Wednesday, July 13, 2022	6:00	63	82	60	51
Wednesday, July 13, 2022	7:00	62	77	60	51
Wednesday, July 13, 2022	8:00	61	72	60	51
Wednesday, July 13, 2022	9:00	60	77	58	46
Wednesday, July 13, 2022	10:00	63	76	60	53
Wednesday, July 13, 2022	11:00	65	78	62	57

Statistics	Leq	Lmax	L50	L90
Day Average	68	80	65	57
Night Average	62	75	57	50
Day Low	60	72	58	46
Day High	72	85	70	64
Night Low	57	69	52	45
Night High	66	82	64	58
Ldn	70	Day %		88
CNEL	70	Night %		12

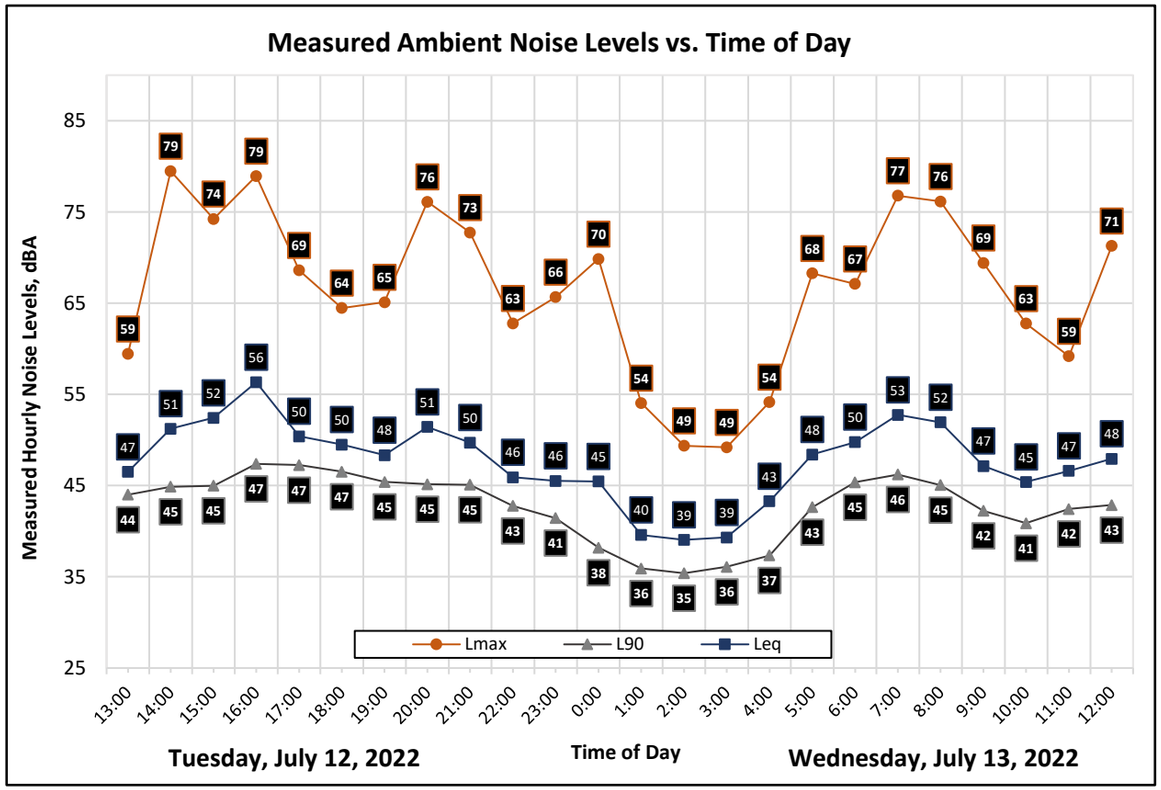


Appendix B2: Continuous Noise Monitoring Results

Site: LT-2
Project: 7590 & 7650 Lone Tree Way Subdivision
Meter: LDL 820-2
Location: Northern Project Boundary
Calibrator: CAL200
Coordinates: 37.9634284°, -121.71154435°

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Tuesday, July 12, 2022	13:00	47	59	46	44
Tuesday, July 12, 2022	14:00	51	79	47	45
Tuesday, July 12, 2022	15:00	52	74	47	45
Tuesday, July 12, 2022	16:00	56	79	52	47
Tuesday, July 12, 2022	17:00	50	69	49	47
Tuesday, July 12, 2022	18:00	50	64	49	47
Tuesday, July 12, 2022	19:00	48	65	48	45
Tuesday, July 12, 2022	20:00	51	76	48	45
Tuesday, July 12, 2022	21:00	50	73	47	45
Tuesday, July 12, 2022	22:00	46	63	45	43
Tuesday, July 12, 2022	23:00	46	66	44	41
Wednesday, July 13, 2022	0:00	45	70	41	38
Wednesday, July 13, 2022	1:00	40	54	38	36
Wednesday, July 13, 2022	2:00	39	49	38	35
Wednesday, July 13, 2022	3:00	39	49	38	36
Wednesday, July 13, 2022	4:00	43	54	42	37
Wednesday, July 13, 2022	5:00	48	68	46	43
Wednesday, July 13, 2022	6:00	50	67	48	45
Wednesday, July 13, 2022	7:00	53	77	49	46
Wednesday, July 13, 2022	8:00	52	76	47	45
Wednesday, July 13, 2022	9:00	47	69	45	42
Wednesday, July 13, 2022	10:00	45	63	43	41
Wednesday, July 13, 2022	11:00	47	59	45	42
Wednesday, July 13, 2022	12:00	48	71	45	43

Statistics	Leq	Lmax	L50	L90
Day Average	51	70	47	45
Night Average	46	60	42	39
Day Low	45	59	43	41
Day High	56	79	52	47
Night Low	39	49	38	35
Night High	50	70	48	45
Ldn	53	Day %		85
CNEL	54	Night %		15



Appendix B3 : Short Term Noise Monitoring Results

Site: ST-1
Project: 7590 & 7650 Lone Tree Way Subdivision
Location: Southern Project Boundary
Coordinates: 37.9617353°, -121.7113401°

Meter: LDL 831-1
Calibrator: CAL200

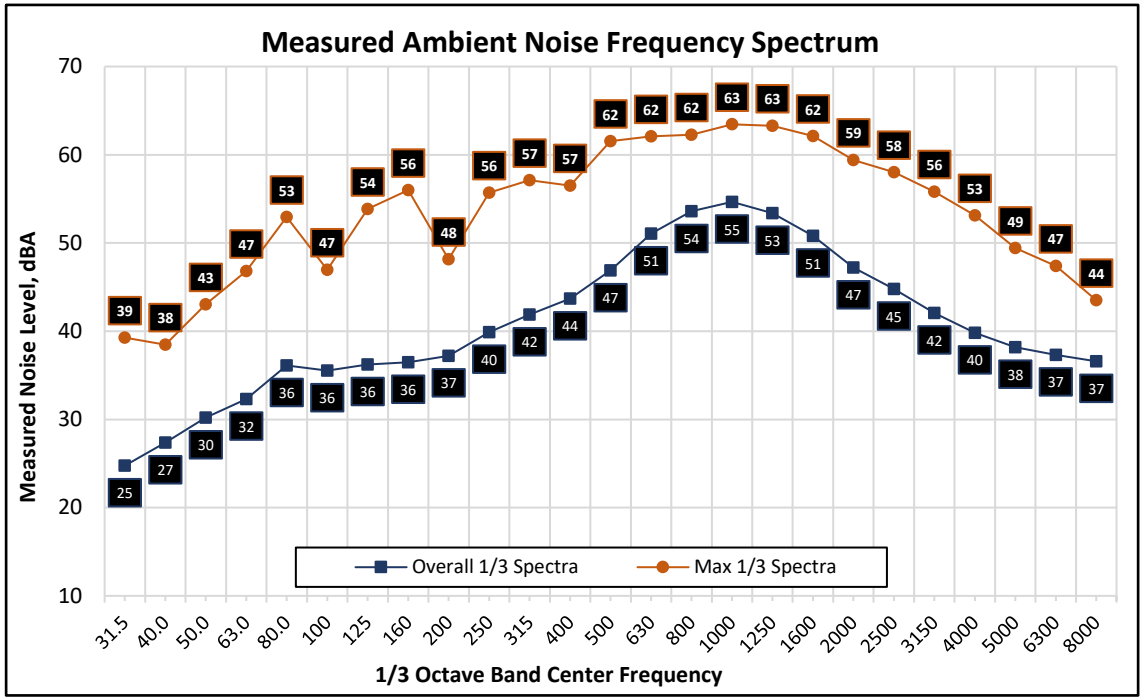
Start: 2022-07-12 12:38:09
Stop: 2022-07-12 12:48:09
SLM: Model 831
Serial: 1329

Measurement Results, dBA

Duration:	0:10
L_{eq}:	61
L_{max}:	71
L_{min}:	46
L_{50}:	57
L_{90}:	48

Notes

Primary noise source was traffic on the local roadway network



Appendix C: Barrier Insertion Loss Calculations

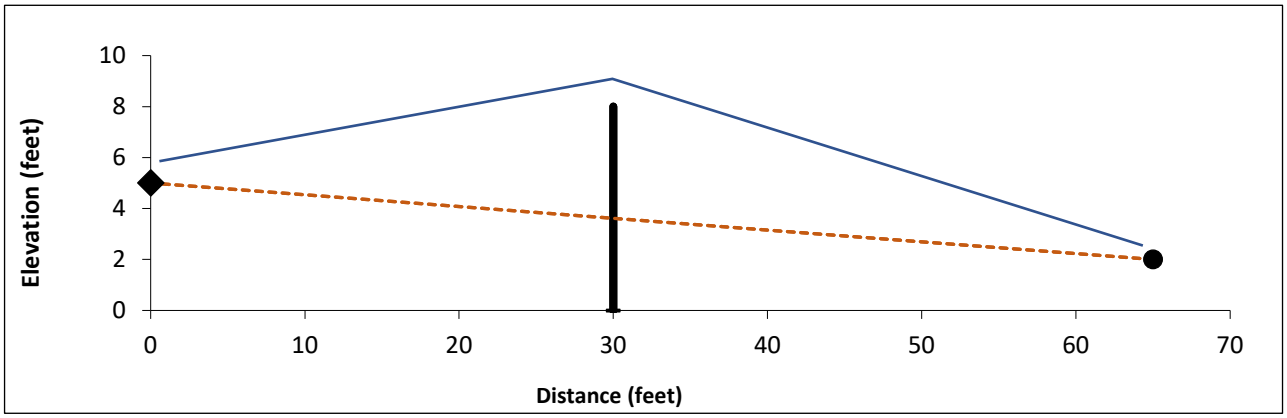
Appendix C1 : Barrier Insertion Loss Calculation

Project Information:	Project Name: 7590 & 7650 Lone Tree Way Subdivision Location(s): Lots 25-28
Noise Level Data:	Source Description: Dog Training Facility Source Noise Level, dBA Leq: 56.0 Source Frequency (Hz): 500 Source Height (ft): 2
Site Geometry:	Receiver Description: Lots 25-28 Outdoor Activity Area Source to Barrier Distance (C_1): 35 Barrier to Receiver Distance (C_2): 30 Pad/Ground Elevation at Receiver: 0 Receiver Elevation[1]: 5 Base of Barrier Elevation: 0 Starting Barrier Height 6

Barrier Effectiveness

Top of Barrier Elevation (ft)	Barrier Height (ft)	Insertion Loss, dB	Noise Level, dB	Barrier Breaks Line of Site to Source?
6	6	-6	50	Yes
7	7	-8	49	Yes
8	8	-9	47	Yes
9	9	-10	46	Yes
10	10	-11	46	Yes
11	11	-11	45	Yes
12	12	-12	44	Yes
13	13	-13	43	Yes
14	14	-13	43	Yes
15	15	-14	42	Yes
16	16	-15	41	Yes

Notes: [1] Standard receiver elevation is five feet above grade/pad elevations at the receiver location(s)



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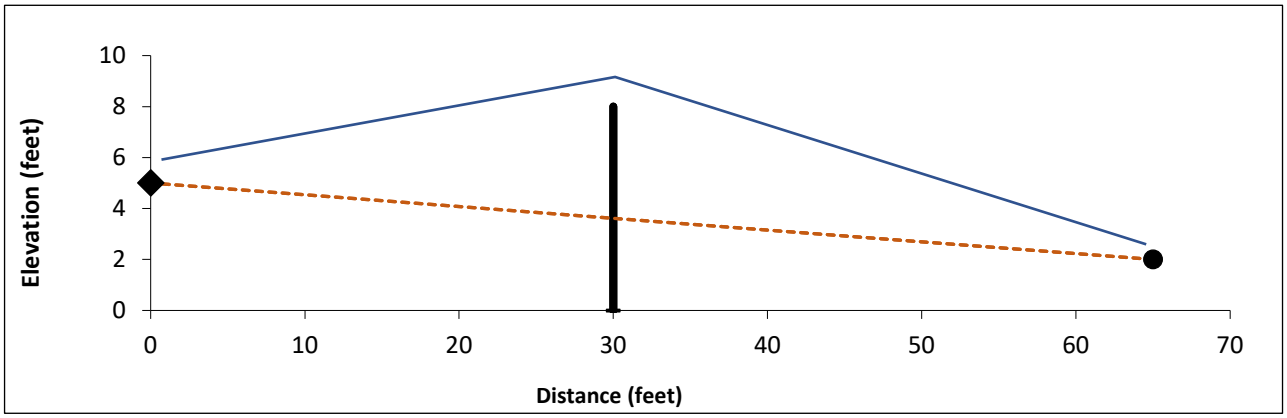
Appendix C2 : Barrier Insertion Loss Calculation

Project Information:	Project Name: 7590 & 7650 Lone Tree Way Subdivision Location(s): Lots 25-28
Noise Level Data:	Source Description: Dog Training Facility Source Noise Level, dBA Lmax: 79.0 Source Frequency (Hz): 500 Source Height (ft): 2
Site Geometry:	Receiver Description: Lots 25-28 Outdoor Activity Area Source to Barrier Distance (C_1): 35 Barrier to Receiver Distance (C_2): 30 Pad/Ground Elevation at Receiver: 0 Receiver Elevation[1]: 5 Base of Barrier Elevation: 0 Starting Barrier Height 6

Barrier Effectiveness

Top of Barrier Elevation (ft)	Barrier Height (ft)	Insertion Loss, dB	Noise Level, dB	Barrier Breaks Line of Site to Source?
6	6	-6	73	Yes
7	7	-8	72	Yes
8	8	-9	70	Yes
9	9	-10	69	Yes
10	10	-11	69	Yes
11	11	-11	68	Yes
12	12	-12	67	Yes
13	13	-13	66	Yes
14	14	-13	66	Yes
15	15	-14	65	Yes
16	16	-15	64	Yes

Notes: [1] Standard receiver elevation is five feet above grade/pad elevations at the receiver location(s)



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Appendix G: Traffic Report

TJKM VISION THAT MOVES YOUR COMMUNITY

TECHNICAL MEMORANDUM

Date:	April 01, 2021		
To:	Doug Chen, Discovery Builders	*Project No.:*	239-044 Lone Tree Way VMT Analysis
From:	Arthur Chen, TJKM	*Jurisdiction:*	Brentwood
Subject:	**7590 & 7650 Lone Tree Way VMT Analysis Memo**		

TJKM conducted a VMT (Vehicle Miles Traveled) analysis for the proposed 7590 & 7650 Lone Tree Way residential project. The project is located in northern Brentwood and consists of 38 single family housing units on a site in the northeast corner of O'hara Avenue and Lone Tree Way. The project is not proposing to change the existing General Plan land use designation of Residential Very Low Density or existing Zoning of R-1-12. SB743 requires all land use projects subject to CEQA analyze VMT impacts and determine whether the project has a significant or insignificant impact.

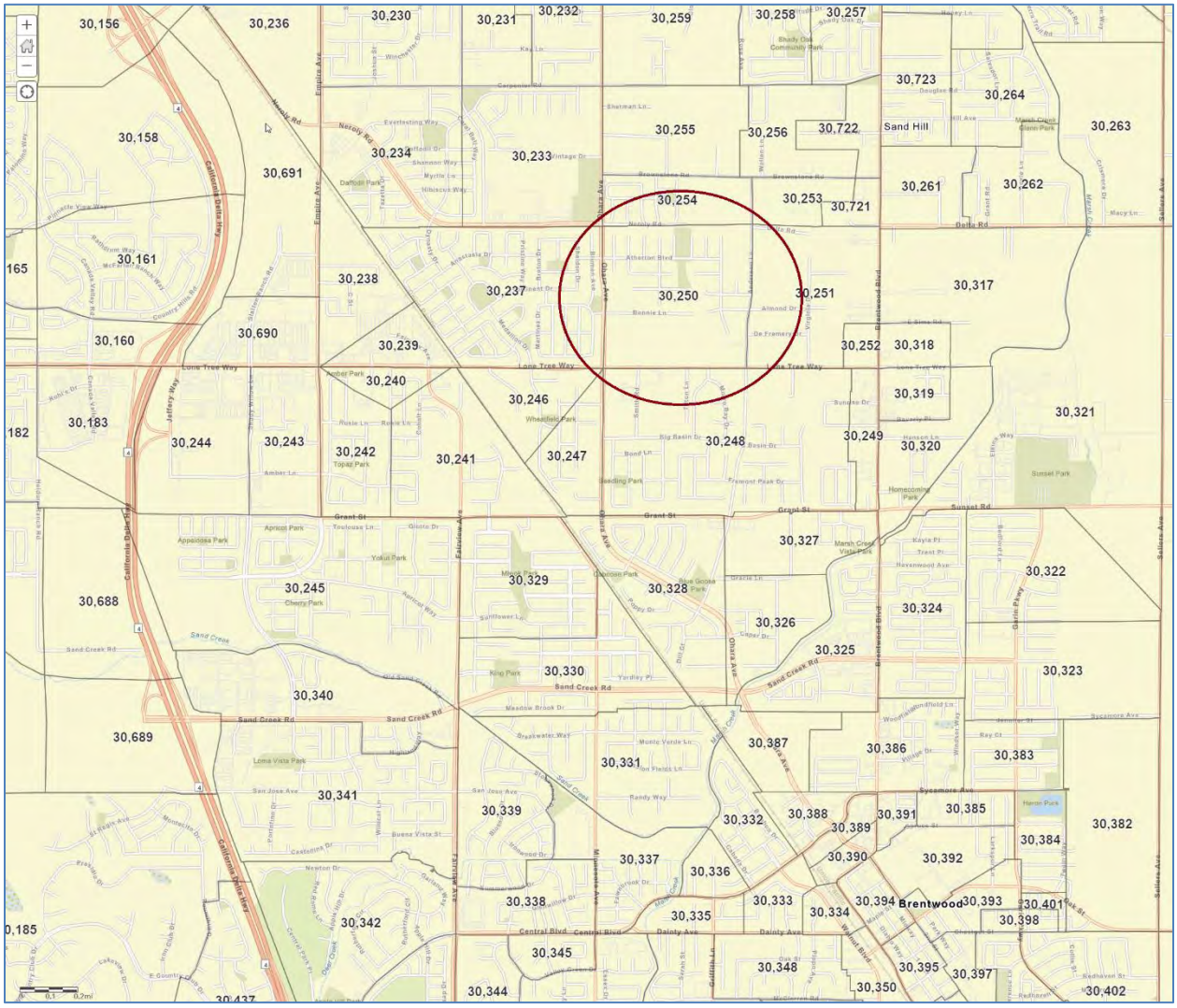
For VMT forecasting, Contra Costa Transportation Authority Growth Management Program Guidelines Appendix F (02/17/2021, page 103) recommends that the estimated VMT for a proposed project be obtained by either:

- Utilizing existing average trip length data of similar TAZ that contains similar mixes of land uses (in the case of the proposed single-land use Lone Tree Way project, CCTA Model output data are already available for TAZ #30250, which the Project occupies).

- Inserting the proposed project into the CCTA Model. Using the CCTA Model to determine both trip generation and trip lengths allows consistent analysis methodology (basically insert the Bayview Project into the CCTA Model and let the Model determine trips).

For the proposed Lone Tree Way Project, the first of the above approaches is used. The project is located in TAZ #30250 of the CCTA travel demand model. Figure 1 shows the location of TAZ #30250 within the city of Brentwood.

Figure 1 – CCTA Model TAZ Map of Project Vicinity



The project is located in the city of Brentwood, which has a citywide VMT per capita of **27.8.** The VMT threshold for the city would be 85% of 27.8 (15% threshold), which is **23.63**. TAZ #30250 currently has 265 housing units. Adding an additional 38 housing units will not have a significant effect on the VMT per capita value for the TAZ. Currently, TAZ #30250 has a VMT per capita value of **23.60** for the year 2021. Since this value is under the threshold of 23.63, the project is found to have a Less-than-Significant impact in the base year scenario threshold.

In conclusion, the project is located in a low VMT area within the city of Brentwood and can be presumed to have a Less-than-Significant VMT impact. Per the Guidelines, a cumulative VMT analysis is not required because the project VMT analysis results in a Less-than-Significant impact.

Traffic Impact Study

7590 & 7650 Lone Tree Way

City of Brentwood

Prepared by:
Abrams Associates
1875 Olympic Boulevard, Suite 210
Walnut Creek CA 94596

Abrams Associates
TRAFFIC ENGINEERING, INC.

April 5, 2022

7590 & 7650 Lone Tree Way Residential Project
in the
City of Brentwood

TRAFFIC IMPACT STUDY

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1) INTRODUCTION

This traffic impact study describes the existing and future conditions for transportation and circulation both with and without the proposed project. The study presents information on the regional and local roadway networks, pedestrian and transit conditions, and provides an analysis of the effects on transportation facilities associated with the project. This study also describes the regulatory setting; the criterion used for determining the significance of environmental impacts; and summarizes potential environmental impacts and appropriate mitigation measures when necessary. In addition, this analysis provides an assessment of the site access and internal circulation. This study has been conducted in accordance with the requirements and methodologies set forth by the City of Brentwood, the Contra Costa Transportation Authority (CCTA), Caltrans, and the applicable provisions of CEQA.

2) PROJECT DESCRIPTION

The proposed project would include construction of 38 single family homes on property currently occupied by three single family homes. The project is located north of Lone Tree Way and east of O'Hara Avenue in the City of Brentwood. All access to the site will be from two driveways onto Lone Tree Way east of O'Hara Avenue. **Figure 1** shows the location of the project and the surrounding roadway network. **Figure 2** shows the proposed site plan for the project.

3) ENVIRONMENTAL SETTING

This section of the report describes the roadways, traffic conditions and other existing transportation characteristics in the vicinity of the project. The primary basis of the analysis is the peak hour level of service for the key intersections. The hours identified as the "peak" hours are generally between 7:15 a.m. and 8:15 a.m. and 5:00 p.m. and 6:00 p.m. for all of the transportation facilities described. Throughout this report, these peak hours will be identified as the AM and PM peak hours, respectively.

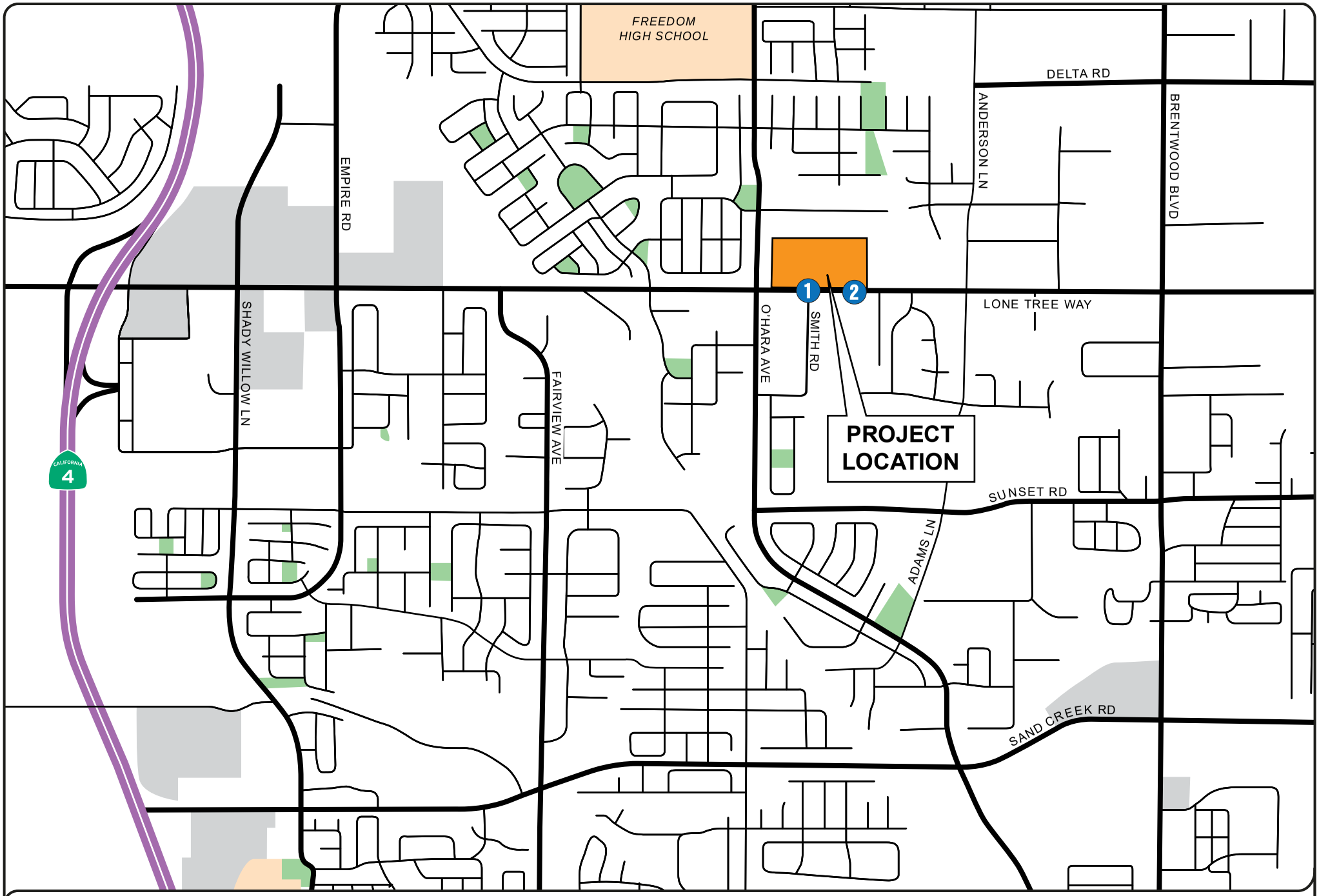

FIGURE 1 | PROJECT LOCATION
TRAFFIC IMPACT STUDY
7590 & 7650 Lone Tree Way
City of Brentwood

Abrams Associates
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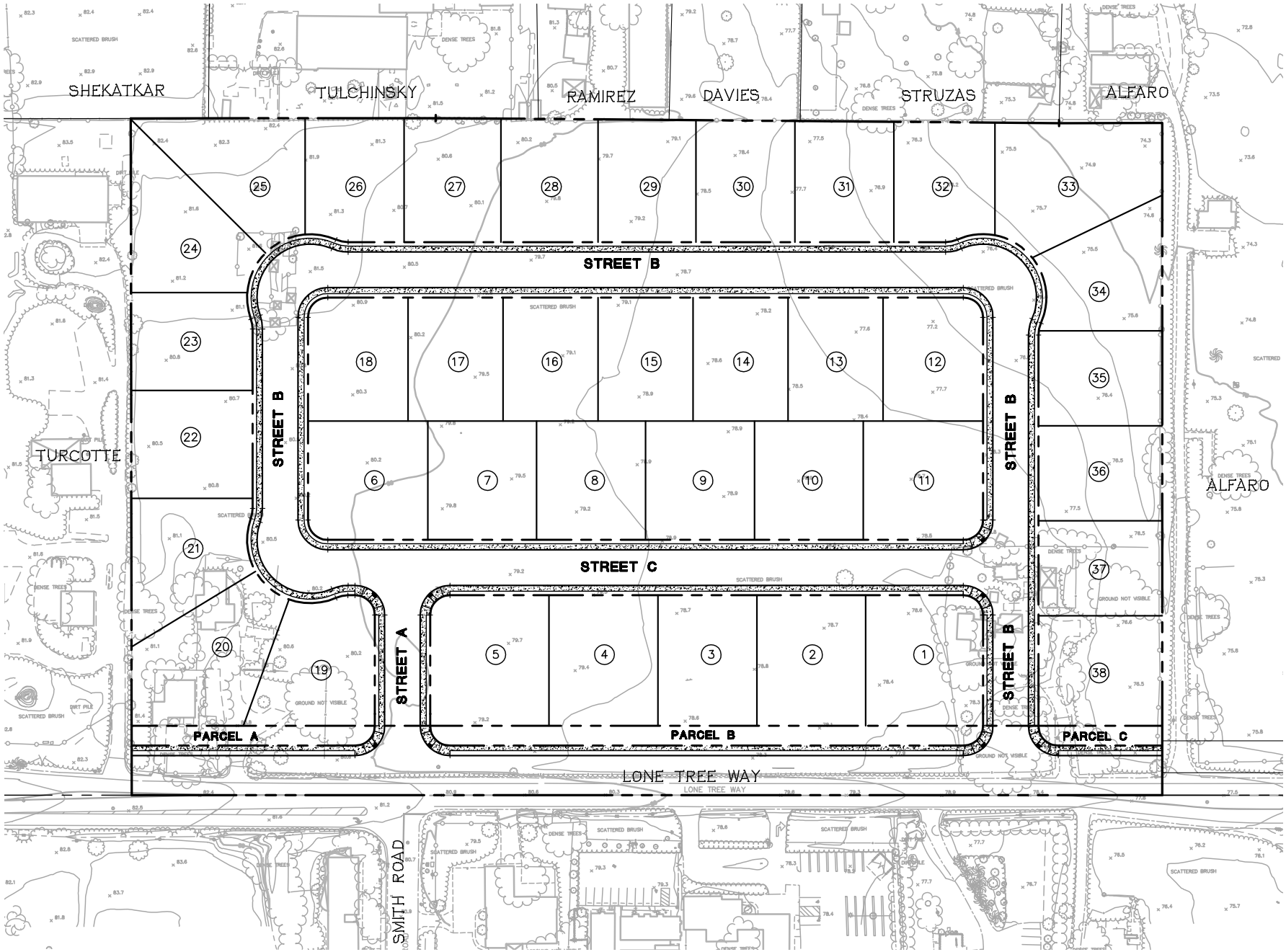

FIGURE 2 | SITE PLAN
TRAFFIC IMPACT STUDY
7590 & 7650 Lone Tree Way
City of Brentwood

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3.1 Project Study Intersections

Based on the project's trip generation and the potential for traffic impacts a list of project study intersections was prepared in coordination with the City of Brentwood. **Figure 1** shows the location of the project study intersections. As mentioned above, all access to the site will be from Lone Tree Way.

There are two (2) study intersections that have been included in the analysis. These include the intersections of Lone Tree Way with the two proposed project driveway intersections The one existing intersection of Smith Road and Lone Tree Way is controlled by a stop sign on the side street (Smith Road) approach.

3.2 Traffic Analysis Scenarios

The study intersections were evaluated for the following six scenarios:

- Scenario 1: *Existing Conditions* – Level of Service (LOS) based on existing peak hour volumes and existing intersection configurations.
- Scenario 2: *Existing Plus Project* – Existing traffic volumes plus trips from the proposed project.
- Scenario 3: *Baseline (No Project) Conditions* – The Baseline scenario is based on the existing volumes plus growth in background traffic (for two years) plus the traffic from all reasonably foreseeable developments that could substantially affect the volumes at the project study intersections.
- Scenario 4: *Baseline Plus Project Conditions* – This scenario is based on the Baseline traffic volumes plus the trips from the proposed project.
- Scenario 5: *Cumulative Conditions* – This scenario includes cumulative (Year 2040) volumes based on buildout of the City's General Plan and the most recent release of the Countywide Travel Demand Model.
- Scenario 6: *Cumulative Plus Project Conditions* – This scenario includes cumulative (Year 2040) volumes based plus the trips from the proposed project.

3.3 Existing Roadway Network

Routes of Regional Significance - Routes of Regional Significance (RRS) are major roadway and freeway corridors that serve regional traffic. These are identified in Action Plans adopted by the Contra Costa Transportation Authority (CCTA) under the Countywide Measure C

program. State Route 4 and Lone Tree Way are both identified as RRS in the East County Action Plan for Routes of Regional Significance.

The following is a more detailed description of the Routes of Regional Significance that could be affected by the project:

- **State Route 4 (SR 4) –** SR 4 is the primary east-west corridor in Contra Costa County. It connects Interstate 80 in the city of Hercules to the west with SR 160 and the cities of Oakley and Brentwood to the east. The nearest interchanges on SR 4 within the study area is at Lone Tree Way.

- **Lone Tree Way –** is an east-west arterial street that provides access to the project site as well as access to a variety of residential and commercial retail uses in this area of Brentwood. The roadway provides access to State Route 4 and is a 2-lane facility to the east of Fairway Avenue and adjacent to the project site. The roadway widens just west of the Medallion Drive intersection to a 6-lane facility. The posted speed limit on Lone Tree Way within the study area is 45 mph.

Local Roadways – There are also two local roadways in the area that could be affected by the proposed project:

- **O'Hara Avenue –** O'Hara is a north-south roadway that runs from Central Boulevard north to Main Street in the City of Oakley. Within the study area, O'Hara Avenue has two travel lanes with left turn pockets. The posted speed limit is 35 mph.

- **Smith Road. –** Smith Road is a two lane north-south local roadway that serves commercial and residential traffic. Smith Road would form the southern leg of the intersection with the westernmost driveway of the proposed project.

3.4 Intersection Analysis Methodology

Existing operational conditions at the two (2) study intersections have been evaluated using the methodology set forth in the 6th Edition of the *Highway Capacity Manual* (*HCM*) Level of Service (LOS) methodology with Synchro software.[1] Level of service is an expression, in the form of a scale, of the relationship between the capacity of an intersection (or roadway segment) to accommodate the volume of traffic moving through it at any given time. The level of service scale describes traffic flow with six ratings ranging from A to F, with "A" indicating relatively free flow of traffic and "F" indicating stop-and-go traffic characterized by traffic jams.

As the amount of traffic moving through a given intersection or roadway segment increases, the traffic flow conditions that motorists experience rapidly deteriorate as the capacity of the intersection or roadway segment is reached. Under such conditions, there is general instability

[1] *Highway Capacity Manual – Sixth Edition*, Transportation Research Board, Washington D.C., 2016

in the traffic flow, which means that relatively small incidents (e.g., momentary engine stall) can cause considerable fluctuations in speeds and delays that lead to traffic congestion. This near-capacity situation is labeled level of service (LOS) E. Beyond LOS E, the intersection or roadway segment capacity has been exceeded, and arriving traffic will exceed the ability of the intersection to accommodate it.

For signalized intersections, The CCTA standards are based on LOS and the volume to capacity ratio (V/C) for the entire intersection. The *HCM* methodology determines the capacity of each lane group approaching the intersection. The LOS is then based on average control delay (in seconds per vehicle) for the various movements within the intersection. A combined weighted average control delay and LOS are presented for the intersection. A summary of the HCM results and copies of the detailed HCM LOS calculations are included in the appendix to this report. **Table 1** summarizes the relationship between LOS, average control delay, and the volume to capacity ratio at signalized intersections.

For unsignalized (all-way stop controlled and two-way stop controlled) intersections, the average control delay and LOS operating conditions are calculated by approach (e.g., northbound) and movement (e.g., northbound left-turn) for those movements that are subject to delay. In general, the operating conditions for unsignalized intersections are presented for the worst approach. **Table 2** summarizes the relationship between LOS and average control delay at unsignalized intersections.

3.5 Existing Intersection Capacity Conditions

The existing intersection geometry at each of the project study intersections can be seen in **Figure 3.** The traffic volumes at the study intersections for weekday AM and PM peak hours are presented in **Figure 4**. Existing traffic data for the study intersections was obtained from traffic counts conducted on May 31, 2022. **Table 3** summarizes the associated LOS computation results for the existing weekday AM and PM peak hour conditions. Please note that the corresponding LOS analysis calculation sheets are presented in the *Traffic Analysis Appendix*. As shown in **Table 3**, both of the study intersections currently have acceptable conditions (LOS D or better) during the weekday AM and PM peak hours.

3.6 Planned Roadway Improvements

The most significant roadway improvement planned for the study area is the proposed widening of Lone Tree Way from Brentwood Blvd to O'Hara Avenue and its associated intersection improvements. This widening of this roadway to four lanes is assumed to be completed as specified in the City's Capital Improvement Program and the City of Brentwood General Plan.

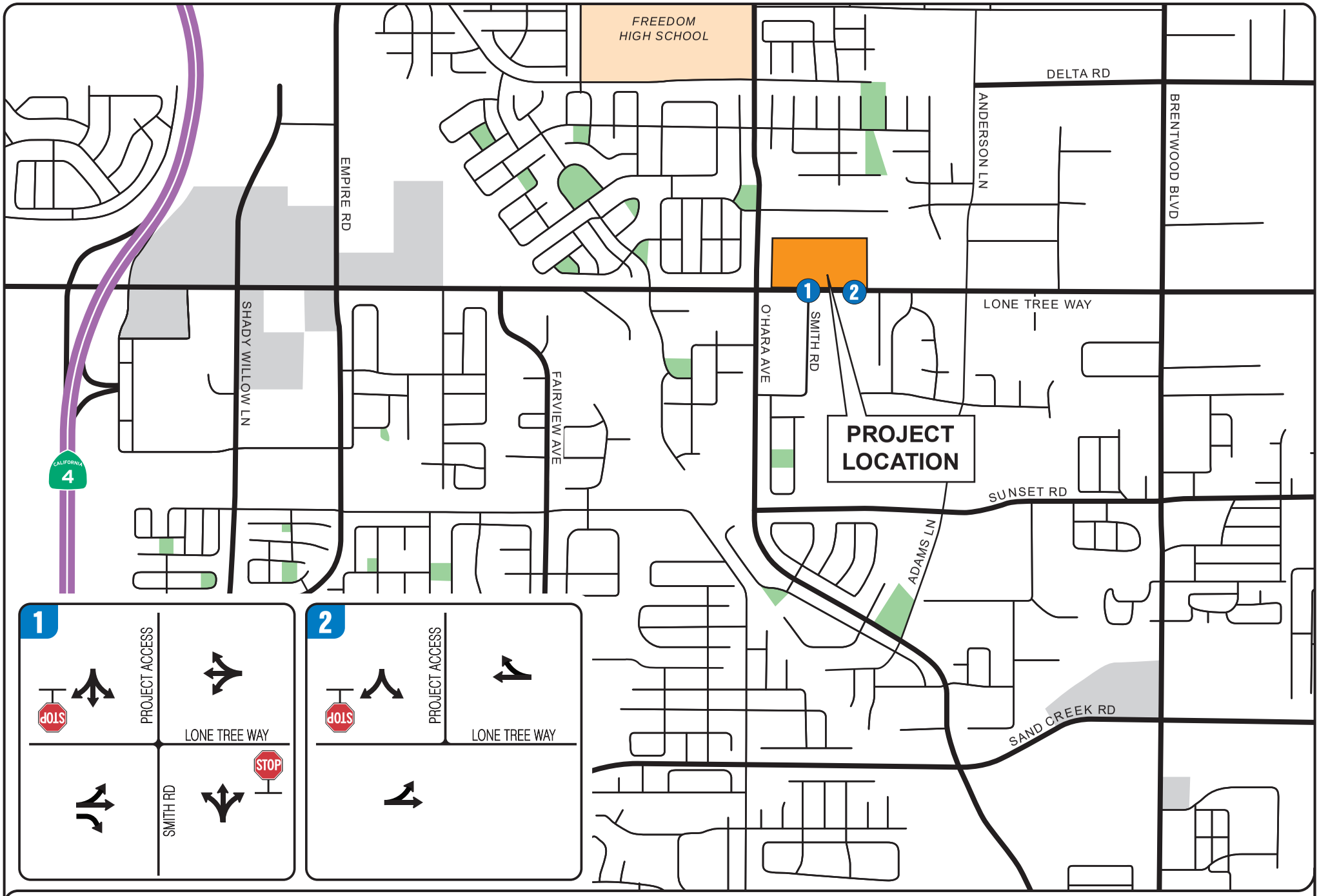

FIGURE 3 | EXISTING LANE CONFIGURATION
TRAFFIC IMPACT STUDY
7590 & 7650 Lone Tree Way
City of Brentwood

Abrams Associates
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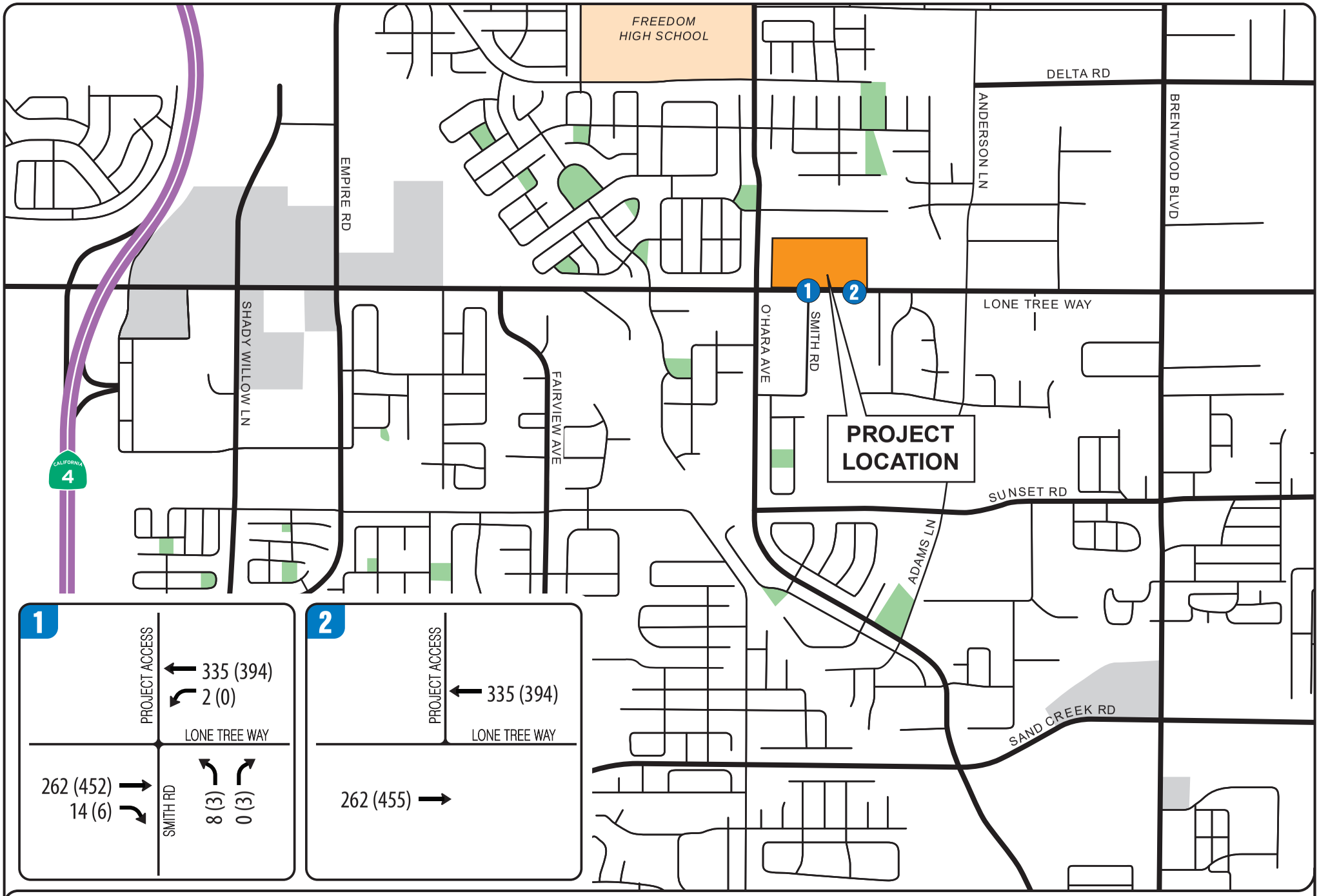

FIGURE 4 | EXISTING AM (PM) PEAK HOUR TRAFFIC VOLUMES

TRAFFIC IMPACT STUDY

7590 & 7650 Lone Tree Way

City of Brentwood

Abrams Associates
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TABLE 1
SIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service	Description of Operations	Average Delay (sec/veh)	Volume to Capacity Ratio
A	Insignificant Delays: No approach phase is fully used and no vehicle waits longer than one red indication.	≤ 10	< 0.60
B	Minimal Delays: An occasional approach phase is fully used. Drivers begin to feel restricted.	> 10 to 20	> 0.61 to 0.70
C	Acceptable Delays: Major approach phase may become fully used. Most drivers feel restricted.	> 20 to 35	> 0.71 to 0.80
D	Tolerable Delays: Drivers may wait through no more than one red indication. Queues may develop but dissipate without excessive delays.	> 35 to 55	> 0.81 to 0.90
E	Significant Delays: Volumes approaching capacity. Vehicles may wait through several signal cycles and long vehicle queues from upstream.	> 55 to 80	> 0.91 to 1.00
F	Excessive Delays: Represents conditions at capacity, with extremely long delays. Queues may block upstream intersections.	> 80	> 1.00

SOURCES: *Highway Capacity Manual – Sixth Edition*, Transportation Research Board, 2016.

TABLE 2
UNSIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service	Description of Operations	Average Delay (seconds/vehicle)
A	No delay for stop-controlled approaches.	0 to 10
B	Operations with minor delays.	> 10 to 15
C	Operations with moderate delays.	> 15 to 25
D	Operations with some delays.	> 25 to 35
E	Operations with high delays and long queues.	> 35 to 50
F	Operation with extreme congestion, with very high delays and long queues unacceptable to most drivers.	> 50

SOURCE: *Highway Capacity Manual – Sixth Edition*, Transportation Research Board, 2016.

3.7 Pedestrian and Bicycle Facilities

Bicycle paths, lanes and routes are typical examples of bicycle transportation facilities, which are defined by Caltrans as being in one of the following three classes:

Class I – Provides a completely separated facility designed for the exclusive use of bicyclists and pedestrians with crossing points minimized.
Class II – Provides a restricted right-of-way designated lane for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and cross-flows by pedestrians and motorists permitted.
Class III – Provides a right-of-way designated by signs or permanent markings and shared with pedestrians and motorists.

There are no bicycle facilities immediately adjacent to the proposed project but the General Plan anticipates Class I and Class II bicycle facilities on most of the major roadways in the project study area. There are two major multi-use trails (i.e. Class I bicycle trails) in the project area that include the Marsh Creek Regional Trail and the Mokelumne Coast to Crest Trail. Pedestrian facilities are generally limited with discontinuous sidewalks in some areas and none on the segment of Lone Tree Way adjacent to the site. Crosswalks with push-button pedestrian activation are provided at each of the four signalized study intersections.

TABLE 3
EXISTING INTERSECTION LEVEL OF SERVICE CONDITIONS

INTERSECTION		CONTROL	PEAK HOUR	EXISTING	
				Delay	LOS
1	LONE TREE WAY & SMITH RD / WEST PROJECT ACCESS	Side Street Stop	AM	13.8	B
			PM	17.3	C
2	LONE TREE WAY & EAST PROJECT ACCESS	Side Street Stop	AM	N/A	N/A
			PM	N/A	N/A

SOURCE: Abrams Associates, 2022

NOTES: HCM LOS results are presented in terms of average intersection delay in seconds per vehicle. For stop controlled intersections the results for the worst side street approach are presented.

3.8 Transit Service

Three major public mass transit operators provide service within or adjacent to the study area. These include BART and the Eastern Contra Costa Transit Authority (or Tri Delta Transit). These operators are described below.

Bay Area Rapid Transit (BART) – BART is a rapid mass transit system which provides regional transportation connections to much of the Bay Area. It runs from the North Bay Area in Richmond to the South Bay Area in Fremont. In the east-west direction it runs from Brentwood

to the San Francisco Airport and Milbrae with several connections in Oakland. The Antioch E-BART station, which is closest to the proposed project, serves all of Brentwood, Bay Point, Antioch, and all other surrounding cities and runs from 4:00 am to 12:00 am daily, with a weekday frequency of 15 minutes.

Tri Delta Transit - Tri Delta Transit serves the East County including Brentwood, Oakley, Brentwood, Antioch, Bay Point and unincorporated areas of East County. Transit service in the City of Brentwood is provided by Tri Delta Transit (TDT by three Tri Delta Transit fixed routes (300, 391, and 393). All Tri Delta Transit buses are equipped with bicycle racks to serve bicyclists accessing bus service. Route 300 is an express service for transit riders traveling between the Brentwood Park and Ride facility (located at 4000 Walnut Boulevard), Oakley, Antioch, and the Pittsburg/Bay Point BART station.

Route 383 operates from downtown Oakley down O'Hara Avenue to Lone Tree Way ending at the Antioch (Hillcrest) Park and Ride. Route 391 is a non-express service for transit riders traveling between Downtown Brentwood, Oakley, Antioch, Pittsburg, and the Pittsburg/Bay Point BART station. Route 393 is a non-express weekend service for transit riders traveling between Downtown Brentwood, Oakley, Antioch, Pittsburg, and Bay Point.
.

4) REGULATORY CONTEXT

Existing policies, laws and regulations that apply to the proposed project are summarized below.

4.1 State

The California Department of Transportation (Caltrans) has jurisdiction over State highways. Therefore, Caltrans controls all construction, modification, and maintenance of State highways, such as SR 4. Any improvements to these roadways would require Caltrans' approval. The Guide for the Preparation of Traffic Impact Studies provides consistent guidance for Caltrans staff who review local development and land use change proposals. The Guide also informs local agencies about the information needed for Caltrans to analyze the traffic impacts to state highway facilities which include freeway segments, on- or off-ramps, and signalized intersections.

4.2 Local

Contra Costa Countywide Comprehensive Transportation Plan Update (2009) - The transportation policies that are currently applicable within Contra Costa County are based on the Contra Costa County Comprehensive Transportation Plan. This document identifies the criteria for analyzing transportation impacts and sets forth plans for future roadway improvements in the county.

City of Brentwood General Plan - The Transportation and Circulation Element included in the City of Brentwood General Plan was prepared pursuant to Section 65302(b) of the California Government Code. The Transportation and Circulation Element addresses the location and extent of existing and planned transportation routes, terminals, and other local public utilities and facilities. The General Plan identifies roadway and transit goals and policies that have been adopted to ensure that the transportation system of the City will have adequate capacity to serve planned growth. These goals and policies are intended to provide a plan and implementation measures for an integrated, multi-modal transportation system that will safely and efficiently meet the transportation needs of all economic and social segments of the City.

4.3 Significance Criteria

The goal of the City of Brentwood is to maintain a Level of Service (LOS) D during the peak hours. *Signalized Intersections* - Project-related operational impacts on the City of Brentwood's signalized study intersections are considered significant if project-related traffic causes the Level of Service (LOS) rating to deteriorate from LOS D or better to LOS E or F, or from LOS E to LOS F. *Unsignalized Intersections* - Project-related operational impacts on unsignalized intersections are considered significant if project generated traffic causes the LOS at an unsignalized intersection to degrade to worse than LOS D and causes an unsignalized intersection to meet traffic signal warrants based on Warrant 3B (peak hour volume warrant) as presented in the California Manual of Uniform Traffic Control Devices (CAMUTCD).

According to CEQA guidelines, a project would have a significant impact if it would:

- Conflict with a plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, including transit, roadway, bicycle and pedestrian facilities?
- Would the project conflict with or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b)? (*Note: This pertains to analysis of vehicle miles traveled, which is being provided separately from this Traffic Impact Study*)
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment).
- Result in inadequate emergency vehicle access.

5) IMPACTS AND MITIGATION MEASURES

5.1 Project Trip Generation

The proposed project would include construction of 38 single family homes on property currently occupied by three single family homes. The trip generation calculations are shown in **Table 4**.

TABLE 4
TRIP GENERATION CALCULATIONS

Land Use	*Size*	*ADT*	*AM Peak Hour*			*PM Peak Hour*		
			In	*Out*	*Total*	*In*	*Out*	*Total*
Single Family Dwellings – ITE Fitted Curve Trip Rates		10.90	0.23	0.68	0.91	0.60	0.35	0.95
Proposed Single Family Homes Trip Generation	38 units	414	9	26	35	23	13	36

The calculations are based on the data from the Institute of Transportation Engineer's (ITE) Trip Generation Manual, 11th Edition. The total trip generation reflects all vehicle trips that would be counted at the project driveways, both inbound and outbound. No adjustments applied to account for pass-by or internal trips. The project is forecast to generate a total of 35 vehicle trips during the AM peak hour and 36 trips during the PM peak hour.

For purposes of determining the reasonable worst-case impacts of traffic on the surrounding street network from a proposed project, the trips generated by this proposed development are estimated for the peak commute hours which represent the peak of "*adjacent street traffic*". This is the time period when the project traffic would generally contribute to the greatest amount of congestion.

5.2 Project Trip Distribution

The trip distribution assumptions have been based on the project's proximity to freeway interchanges, the existing directional split at other nearby intersections, and the overall land use patterns in the area. The resulting distribution then assumed that 60 percent of the project traffic would be to and from the west on Lone Tree Way. **Figure 5** shows the project traffic that would be added at each of the study intersections.

5.3 Existing Plus Project Intersection Capacity Conditions

This scenario evaluates the existing conditions with the addition of traffic from the proposed project. The capacity calculations for the Existing Plus Project scenario were shown previously in **Table 3**. **Figure 6** shows the project traffic that would be added at each of the study intersections. As shown in **Table 5**, both of the project study intersections would continue to have acceptable conditions (LOS D or better) during the weekday AM and PM peak hours.

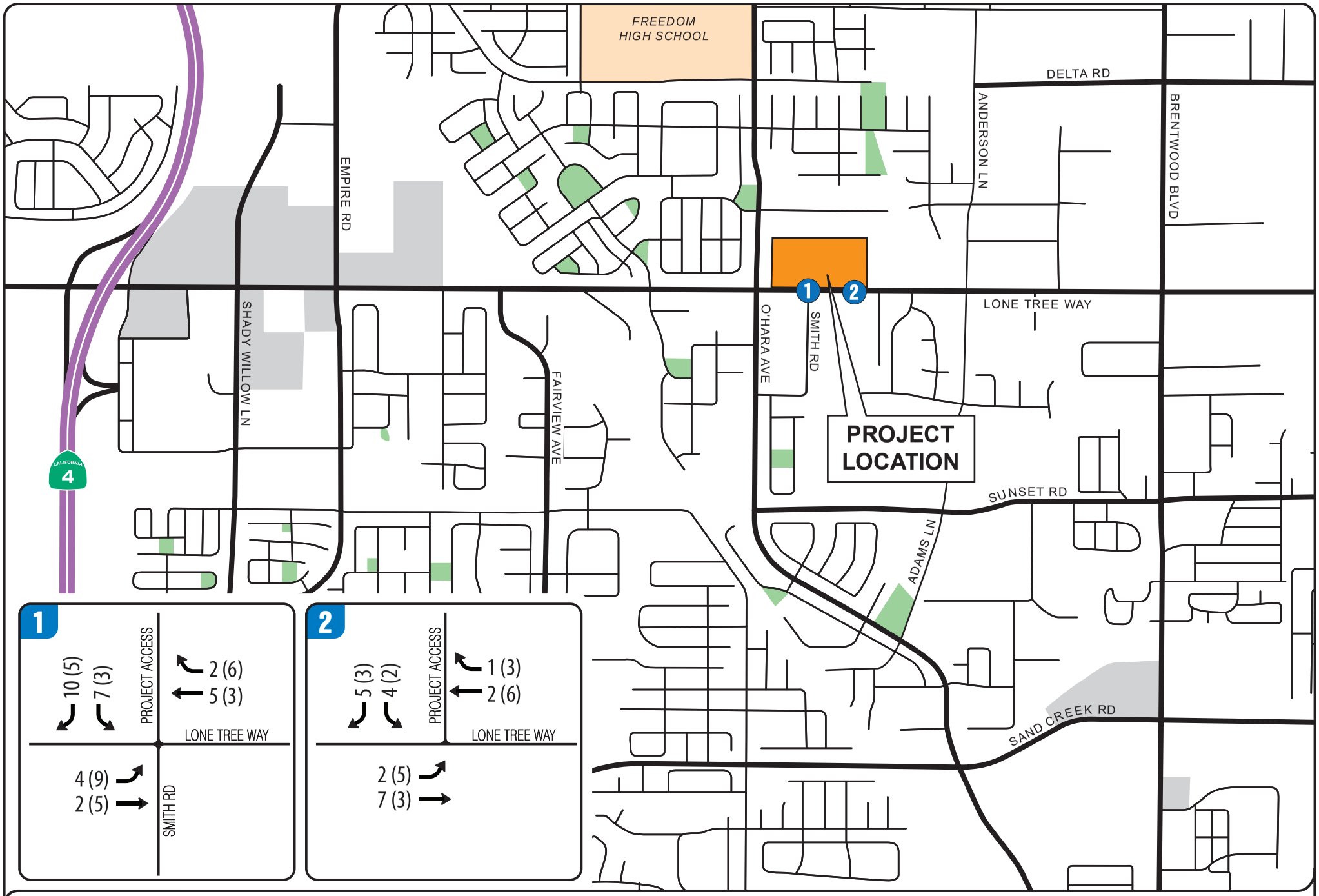

FIGURE 5 | PROJECT AM (PM) PEAK HOUR TRIPS
TRAFFIC IMPACT STUDY
7590 & 7650 Lone Tree Way
City of Brentwood

Abrams Associates
TRAFFIC ENGINEERING, INC.

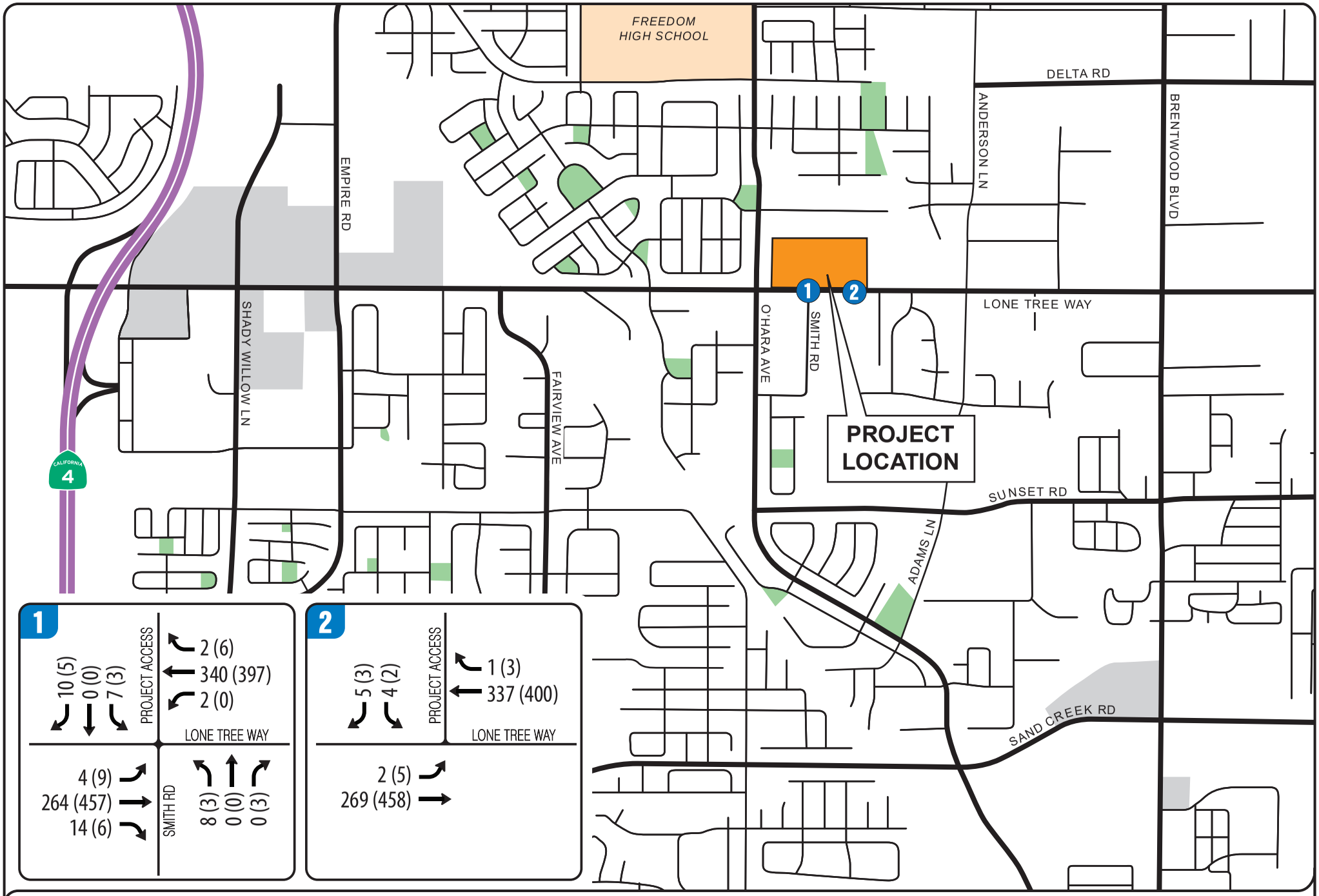

FIGURE 6 | EXISTING PLUS PROJECT AM (PM) PEAK HOUR TRAFFIC VOLUMES

TRAFFIC IMPACT STUDY

7590 & 7650 Lone Tree Way

City of Brentwood

Abrams Associates
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TABLE 5
EXISTING PLUS PROJECT INTERSECTION LEVEL OF SERVICE CONDITIONS

INTERSECTION		CONTROL	PEAK HOUR	EXISTING		EXISTING PLUS PROJECT	
				Delay	LOS	Delay	LOS
1	LONE TREE WAY & SMITH RD / WEST PROJECT ACCESS	Side Street Stop	AM	14.7	B	15.3	C
			PM	15.5	C	16.1	C
2	LONE TREE WAY & EAST PROJECT ACCESS	Side Street Stop	AM	N/A	N/A	11.8	B
			PM	N/A	N/A	13.6	B

SOURCE: Abrams Associates, 2022

NOTES: HCM LOS results are presented in terms of average intersection delay in seconds per vehicle. For stop controlled intersections the results for the worst side street approach are presented.

5.4 Baseline Intersection Capacity Conditions

The Baseline scenario evaluates the existing conditions with the addition of traffic from reasonably foreseeable projects in the area. For this analysis pre-covid traffic counts from the Brentwood General Plan EIR were used along with a one percent increase per year for two years based on the assumption the project could open in 2024. **Figure 7** presents the resulting baseline volumes at each of the project study intersections.

Table 6 summarizes the associated LOS computation results for the Baseline and Baseline Plus Project weekday AM and PM peak hour conditions. The corresponding LOS analysis calculation sheets are presented in the *Traffic Analysis Appendix*. As shown in **Table 6**, with addition of traffic from the proposed project all study intersections would continue have acceptable conditions (LOS D or better) during the weekday AM and PM peak hours under Baseline Conditions.

TABLE 6
BASELINE PLUS PROJECT INTERSECTION LEVEL OF SERVICE CONDITIONS

INTERSECTION		CONTROL	PEAK HOUR	BASELINE		BASELINE PLUS PROJECT	
				Delay	LOS	Delay	LOS
1	LONE TREE WAY & SMITH RD / WEST PROJECT ACCESS	Side Street Stop	AM	14.4	B	14.8	B
			PM	19.5	C	20.5	C
2	LONE TREE WAY & EAST PROJECT ACCESS	Side Street Stop	AM	N/A	N/A	12.8	B
			PM	N/A	N/A	14.4	B

SOURCE: Abrams Associates, 2022

NOTES: HCM LOS results are presented in terms of average intersection delay in seconds per vehicle. For stop-controlled intersections the results for the worst side street approach are presented.

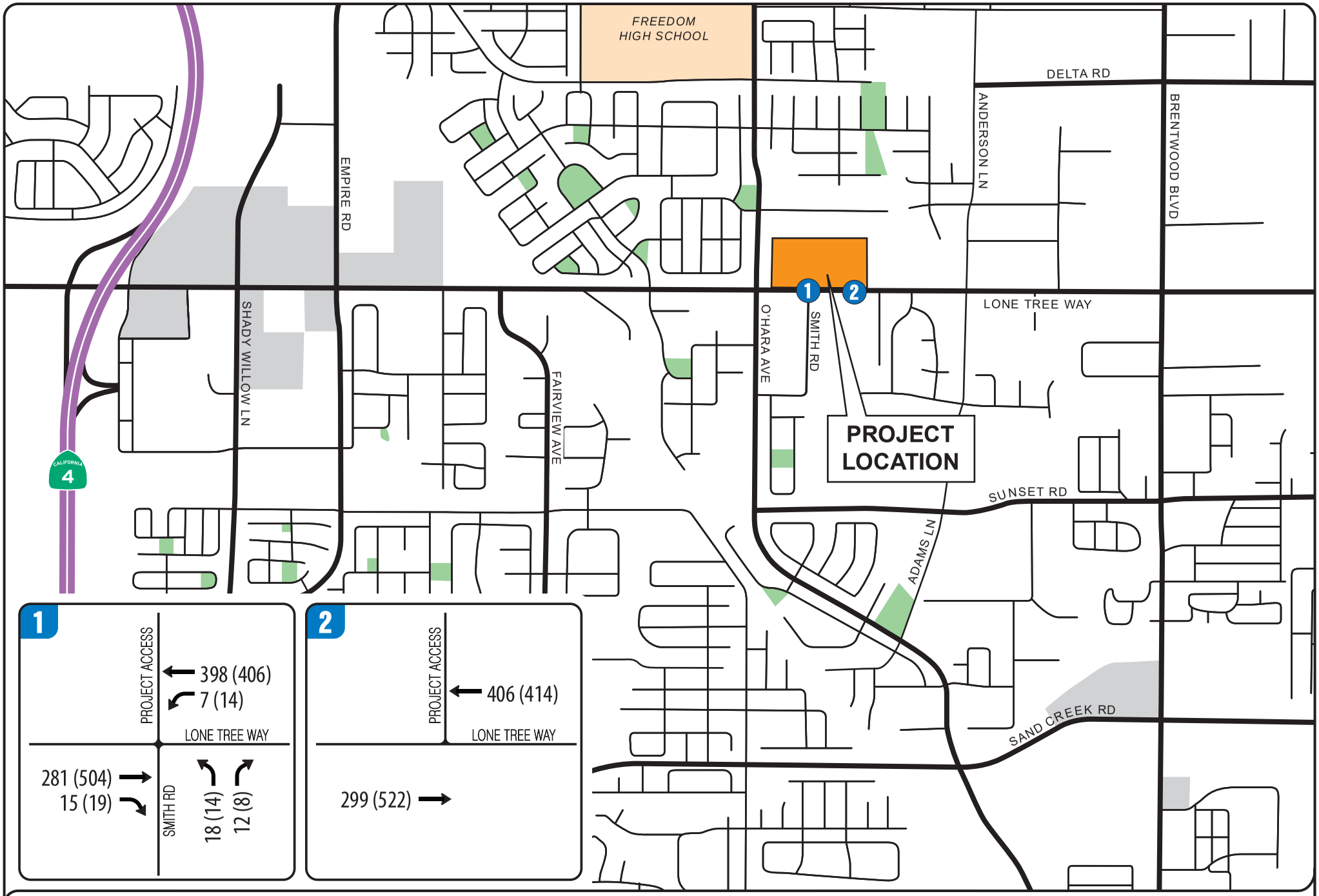

FIGURE 7 | BASELINE AM (PM) PEAK HOUR TRAFFIC VOLUMES

TRAFFIC IMPACT STUDY

7590 & 7650 Lone Tree Way

City of Brentwood

Abrams Associates
TRAFFIC ENGINEERING, INC.

5.5 Baseline *Plus Project* Intersection Capacity Conditions

The Baseline plus proposed project traffic forecasts were developed by adding project-related traffic to the baseline traffic volumes. **Figure 8** presents the Baseline Plus Project traffic volumes that were used in the analysis. **Table 6** summarizes the LOS results for the Baseline Plus Project weekday AM and PM peak hour conditions. As shown in **Table 6**, both of the study intersections would continue to have acceptable conditions (LOS D or better) during the weekday AM and PM peak hours.

5.6 Cumulative Intersection Capacity Conditions

For the cumulative conditions, the intersection traffic volumes were based on the existing turning movements with the addition of traffic from all planned and approved projects plus the addition of growth estimated by the County's traffic model and the City's General Plan EIR. **Figure 9** presents the cumulative build-out traffic volumes *without* traffic from the proposed project. As shown in **Table 7**, the intersection of Lone Tree Way with Smith Road is forecast to operate at LOS F in the AM and PM peak hours if left turns are permitted there, regardless of whether or not the proposed project is implemented.

TABLE 7
CUMULATIVE PLUS PROJECT INTERSECTION LEVEL OF SERVICE CONDITIONS

INTERSECTION		CONTROL	PEAK HOUR	CUMULATIVE		CUMULATIVE PLUS PROJECT	
				Delay	LOS	Delay	LOS
1	LONE TREE WAY & SMITH RD / WEST PROJECT ACCESS	Side Street Stop	AM	> 50.0	F	> 50.0	F
			PM	> 50.0	F	> 50.0	F
2	LONE TREE WAY & EAST PROJECT ACCESS	Side Street Stop	AM	N/A	N/A	> 50.0	F
			PM	N/A	N/A	40.8	E

SOURCE: Abrams Associates, 2022

NOTES: HCM LOS results are presented in terms of average intersection delay in seconds per vehicle. For stop-controlled intersections the results for the worst side street approach are presented.

5.7 Cumulative Plus Project Intersection Capacity Conditions

Table 7 summarizes the LOS results for the Cumulative Plus Project (Year 2040) traffic conditions at each of the project study intersection with the planned widening of Lone Tree Way to four lanes. As shown on this table, both of the study intersections are forecast to have LOS F conditions on the side street approaches in the AM and LOS E conditions on the side street approaches in the PM Peak Hour. However, since these intersections would not meet Caltrans' Peak Hour Signal Warrants (and the Smith Road intersection would operate at LOS F with or without the proposed project) this would not be considered a significant impact. It is important to note that the through movements on Lone Tree Way would not be forecast to be impacted. The average delay for vehicles on the through movements on Lone Tree Way are forecast to be

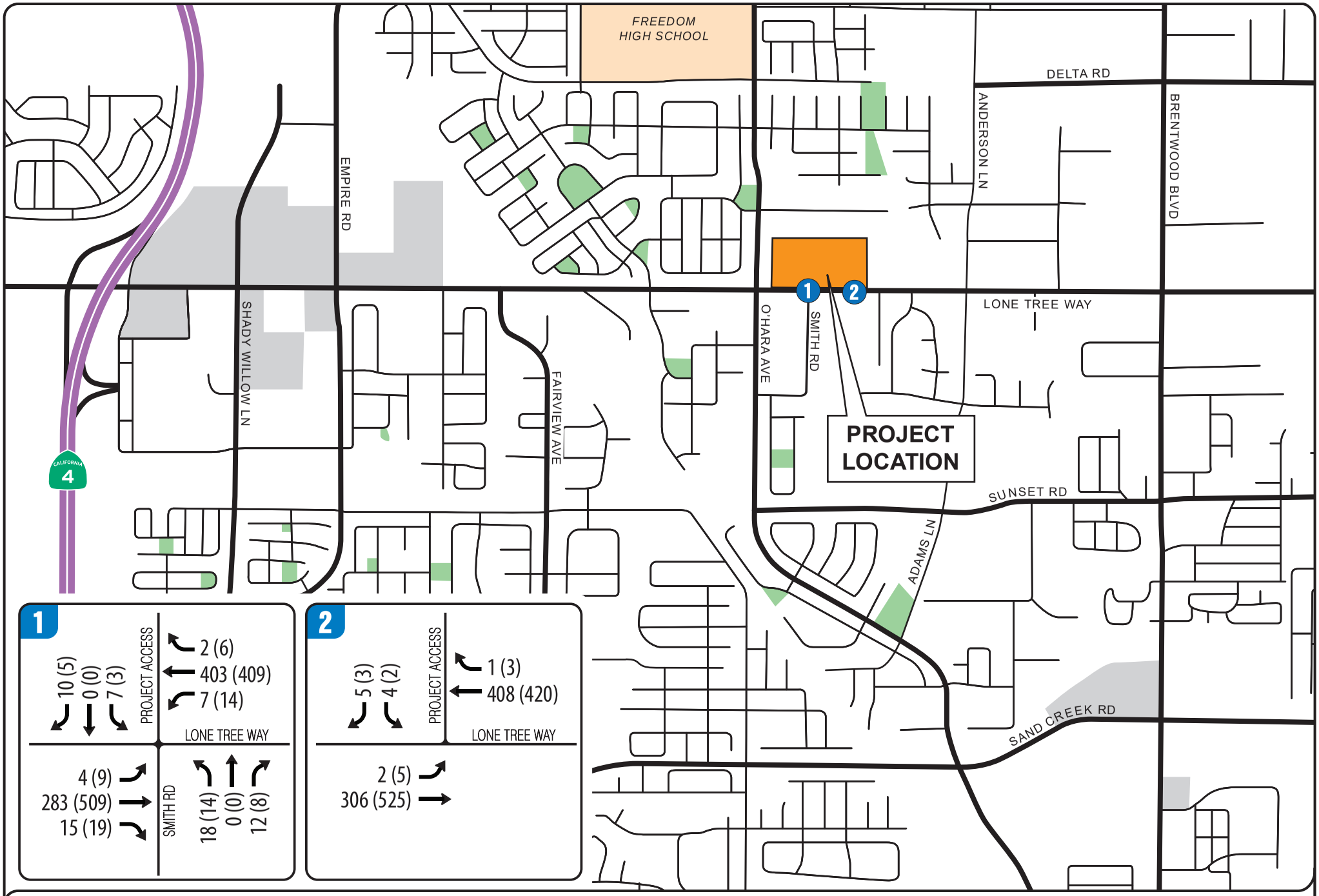

FIGURE 8 | BASELINE PLUS PROJECT AM (PM) PEAK HOUR TRAFFIC VOLUMES

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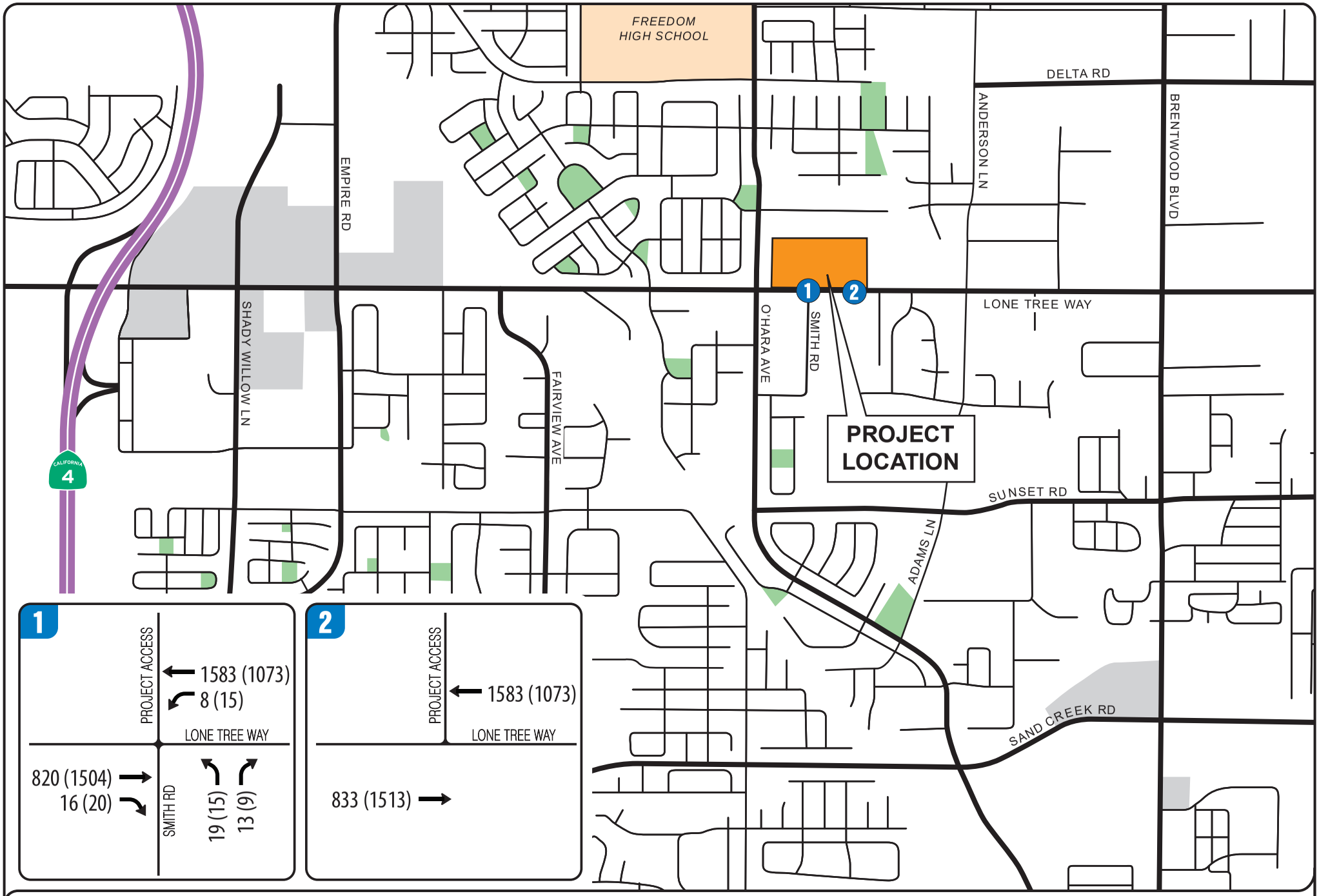

FIGURE 9 | CUMULATIVE AM (PM) PEAK HOUR TRAFFIC VOLUMES

TRAFFIC IMPACT STUDY

7590 & 7650 Lone Tree Way

City of Brentwood

Abrams Associates
TRAFFIC ENGINEERING, INC.

three tenths of a second or less, while the proposed project is forecast to increase the delay on these movements by no more than one tenth of a second. **Figure 10** presents the cumulative build-out traffic volumes including the traffic from the proposed project.

5.8 Internal Circulation and Access

No internal site circulation or access issues have been identified that would cause a traffic safety problem or any unusual traffic congestion or delay. The volumes on the internal roadways would be light enough so that no significant conflicts would be expected within the project. At the project entrances on Lone Tree Way there would be poor operations on the side streets (LOS F) during the peak hour under cumulative conditions. However, as discussed in Section 5.7, since there would be no impacts to the delay on Lone Tree Way (only on the low-volume side street movements) and because these intersections would not meet Caltrans' Peak Hour Signal Warrants, this would not be considered a significant impact.

5.9 Parking Impacts

The proposed project would provide an adequate supply of off-street parking based on the City's requirements. The project is currently proposing to meet the City's parking requirements and based on our review of the proposed plan there would be no significant impacts to the surrounding properties.

5.10 Pedestrian and Bicycle Impacts

The proposed project would generate additional pedestrian and bicycle traffic in the area, thereby potentially increasing conflicts between vehicles, bicycles, and pedestrians. In general the proposed project would not generate a significant increase in pedestrian and bicycle traffic in the area in comparison to the existing volumes and given the size and nature of the proposed project. In addition, the proposed project would not create any new safety problems in the area.

The proposed project would also not significantly impact any existing bicycle facilities, including bike lanes, routes, or paths in the area. In general, the proposed project would not generate a significant increase in bicycle traffic in the area and would not significantly impact or change the design of any existing bicycle facilities.

5.11 Transit Impacts

The proposed project would not interfere with any existing bus routes and would not remove or relocate any existing bus stops. People from the project would be expected to utilize connections to Hillcrest Avenue E-BART station and would provide additional ridership for local bus companies. Therefore, the impact of the proposed Project on existing transit operations or adopted plans related to transit would be less than significant.

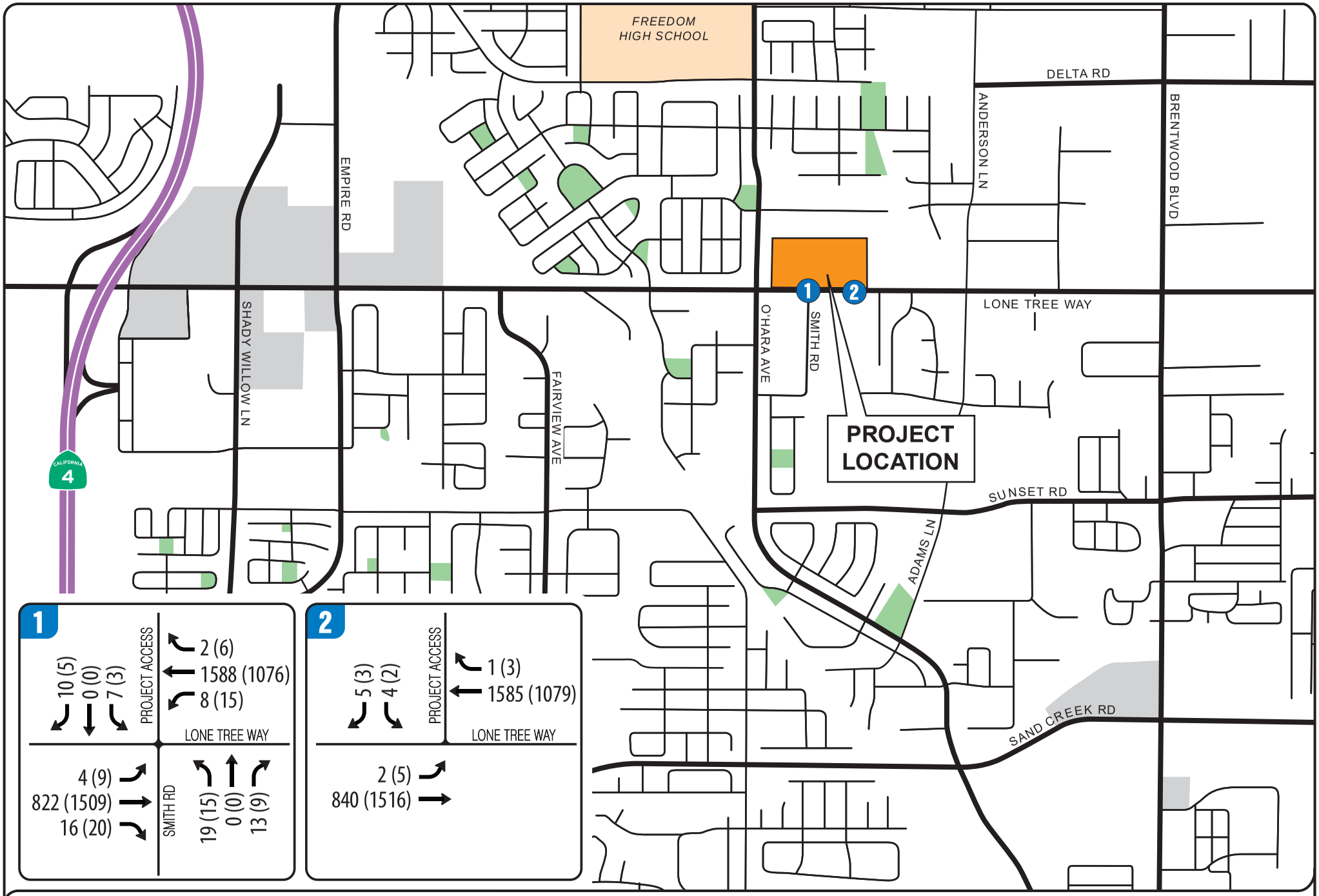

FIGURE 10 | CUMULATIVE PLUS PROJECT AM (PM) PEAK HOUR TRAFFIC VOLUMES

TRAFFIC IMPACT STUDY

7590 & 7650 Lone Tree Way

City of Brentwood

Abrams Associates
TRAFFIC ENGINEERING, INC.

5.12 Project-Specific Impacts and Mitigation Measures

Based on the project's design and a detailed analysis conducted according to the required guidelines there would be no significant transportation impacts according to established traffic engineering standards and no off-site traffic or transportation mitigations would be required.

Impact #1 Impacts related to conflicts with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or potential decreases to the performance or safety of such facilities.

The project would not result in degradation of the level of service (or a significant increase in delay) on any roadway segments currently being utilized by bus transit in the area and would not increase ridership beyond existing capacity. As such, no significant impacts to bus transit would be expected to occur. In addition, the proposed project would not significantly impact or change the design of any existing pedestrian facilities and would not create any new safety problems for pedestrians in the area. The project will add some bicyclists in the area but the volumes added would not be expected to significantly impact any existing bicycle facilities. In relation to the existing conditions, the proposed project would not cause substantial changes to the pedestrian or bicycle traffic in the area and would not significantly impact or require changes to the design of any existing bicycle or pedestrian facilities.

<u>Mitigation Measure(s)</u>
None required.

Impact #2 Impacts relating to demolition and construction activities

The increase in traffic as a result of demolition and construction activities associated with the proposed project has been quantified assuming a worst-case single phase construction period of 12 months.

Heavy Equipment

Approximately three pieces of heavy equipment are estimated to be transported on and off the site each month throughout the demolition and construction of the proposed project. Heavy equipment transport to and from the site could cause traffic impacts in the vicinity of the project site during construction. However, each load would be required to obtain all necessary permits, which would include conditions. Prior to issuance of grading and building permits, the project applicant would be required to submit a Traffic Control Plan.

The requirements within the Traffic Control Plan include, but are not limited to, the following: truck drivers would be notified of and required to use the most direct

route between the site and the freeway, as determined by the City Engineering Department; all site ingress and egress would occur only at the main driveways to the project site and construction activities may require installation of temporary traffic controls as determined by the City Engineer; specifically designated travel routes for large vehicles would be monitored and controlled by flaggers for large construction vehicle ingress and egress; any debris and mud on nearby streets caused by trucks would be monitored daily and may require instituting a street cleaning program. In addition, the transport of heavy equipment being hauled to and from the site each month would be short-term and temporary.

Employees

The weekday work is expected to begin around 7:00 AM and end around 4:00 PM. The construction worker arrival peak would occur between 6:30 AM and 7:30 AM, and the departure peak would occur between 4:00 PM and 5:00 PM. These peak hours are slightly before the citywide commute peaks. It should be noted that the number of trips generated during construction would not only be temporary, but would also be substantially less than the proposed project at buildout. Based on past construction of similar projects, construction workers could require parking for up to 30 vehicles during the peak construction period. Additionally, deliveries, visits, and other activities may generate peak non-worker parking demand of 10 to 15 trucks and automobiles per day.

Therefore, up to 45 vehicle parking spaces may be required during the peak construction period for the construction employees. Furthermore, the City's construction traffic control guidelines require construction employee parking be provided on the project site to eliminate conflicts with nearby residential areas. Because the construction of the project can be staggered so that employee parking demand is met by using on-site parking, the impacts of construction-related employee traffic and parking are considered less-than-significant.

Construction Material Import/Export

The project would also require removal of existing debris as well as the importation of construction material, including raw materials for the building pads, the buildings, and landscaping. During the maximum peak construction period, the project could generate approximately 10 truck trips per day. Furthermore, under the provisions of the Traffic Control Plan, if importation and exportation of material becomes a traffic nuisance, then the City Engineer may limit the hours the activities can take place.

Traffic Control Plan

The Traffic Control Plan would indicate how parking for construction workers would be provided during construction and ensure a safe flow of traffic in the project area during construction. This analysis assumed construction of the entire project in one phase to identify the potential worst-case traffic effects. If the project is built in phases over time, the effects of each phase will be the same or less. Each phase will be subject to a Traffic Control Plan and oversight by the City Engineer. The last phase may require added worker parking measures, depending on the circumstances, as there will not be any remaining vacant land for parking. Therefore, the demolition and construction activities associated with the proposed project or its individual phases would not lead to noticeable congestion in the vicinity of the site or the perception of decreased traffic safety resulting in a ***less-than-significant*** impact.

Mitigation Measure(s)
None required.

Impact #3 Impacts related to site access and circulation.

The proposed project would have driveways on Lone Tree Way that would continue to be controlled with stop signs on the side street approaches. The existing stop-controlled intersections providing access to the project are forecast to have acceptable operations under near-term conditions but would have poor operations on the side street approaches under cumulative conditions. However, the operations for through traffic on Lone Tree Way would not be significantly impacted (i.e. less than a one tenth of a second increase in delay) and the access intersections would not meet Caltrans Peak Hour Warrant for a traffic signal. Based on a review of the proposed site plan it was determined that the site circulation should function well and would not cause any safety or operational problems. The project site design has been required to conform to City design standards and is not expected to create any significant impacts to pedestrians, bicyclists or traffic operations. Therefore, impacts related to access and circulation to the proposed project would be ***less-than-significant*** with implementation of the following mitigation measure.

Mitigation Measure(s)
None required.

Impact #4 Impacts regarding emergency vehicle access on and surrounding the proposed project site.

Sufficient emergency access is determined by factors such as number of access points, roadway width, and proximity to fire stations. The land use plan for the proposed project would include two entrances on Lone Tree Way. All lane widths within the project would meet the minimum width that can accommodate an emergency vehicle; therefore, the width of the internal roadways would be adequate. In addition, the addition of traffic from project traffic would not result in any significant changes to emergency vehicle response times in the area. Therefore, subject to approval from the City and the fire department, the development of the proposed project is expected to have ***less-than-significant*** impacts regarding emergency vehicle access.

Mitigation Measure(s)
None required.

Traffic Impact Study Technical Appendix

7590 & 7650 Lone Tree Way

City of Brentwood

Prepared by:
Abrams Associates
1875 Olympic Boulevard, Suite 210
Walnut Creek CA 94596

Abrams Associates
TRAFFIC ENGINEERING, INC.

April 5, 2022

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	262	14	2	335	0	8	0	0	0	0	0
Future Vol, veh/h	0	262	14	2	335	0	8	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	285	15	2	364	0	9	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	364	0	0	300	0	0	653	653	285	661	668	364
Stage 1	-	-	-	-	-	-	285	285	-	368	368	-
Stage 2	-	-	-	-	-	-	368	368	-	293	300	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1195	-	-	1261	-	-	380	387	754	376	379	681
Stage 1	-	-	-	-	-	-	722	676	-	652	621	-
Stage 2	-	-	-	-	-	-	652	621	-	715	666	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1195	-	-	1261	-	-	379	386	754	375	378	681
Mov Cap-2 Maneuver	-	-	-	-	-	-	379	386	-	375	378	-
Stage 1	-	-	-	-	-	-	722	676	-	652	620	-
Stage 2	-	-	-	-	-	-	651	620	-	715	666	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	14.7	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	379	1195	-	-	1261	-	-	-
HCM Lane V/C Ratio	0.023	-	-	-	0.002	-	-	-
HCM Control Delay (s)	14.7	0	-	-	7.9	0	-	0
HCM Lane LOS	B	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	262	335	0	0	0
Future Vol, veh/h	0	262	335	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	285	364	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	364	0	-	0	649	364
Stage 1	-	-	-	-	364	-
Stage 2	-	-	-	-	285	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1195	-	-	-	434	681
Stage 1	-	-	-	-	703	-
Stage 2	-	-	-	-	763	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1195	-	-	-	434	681
Mov Cap-2 Maneuver	-	-	-	-	434	-
Stage 1	-	-	-	-	703	-
Stage 2	-	-	-	-	763	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1195	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	452	6	0	394	0	3	0	3	0	0	0
Future Vol, veh/h	0	452	6	0	394	0	3	0	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	491	7	0	428	0	3	0	3	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	428	0	0	498	0	0	919	919	491	924	926	428
Stage 1	-	-	-	-	-	-	491	491	-	428	428	-
Stage 2	-	-	-	-	-	-	428	428	-	496	498	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1131	-	-	1066	-	-	252	271	578	250	269	627
Stage 1	-	-	-	-	-	-	559	548	-	605	585	-
Stage 2	-	-	-	-	-	-	605	585	-	556	544	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1131	-	-	1066	-	-	252	271	578	249	269	627
Mov Cap-2 Maneuver	-	-	-	-	-	-	252	271	-	249	269	-
Stage 1	-	-	-	-	-	-	559	548	-	605	585	-
Stage 2	-	-	-	-	-	-	605	585	-	553	544	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	15.5	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	351	1131	-	-	1066	-	-	-
HCM Lane V/C Ratio	0.019	-	-	-	-	-	-	-
HCM Control Delay (s)	15.5	0	-	-	0	-	-	0
HCM Lane LOS	C	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	455	394	0	0	0
Future Vol, veh/h	0	455	394	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	495	428	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	428	0	-	0	923	428
Stage 1	-	-	-	-	428	-
Stage 2	-	-	-	-	495	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1131	-	-	-	299	627
Stage 1	-	-	-	-	657	-
Stage 2	-	-	-	-	613	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1131	-	-	-	299	627
Mov Cap-2 Maneuver	-	-	-	-	299	-
Stage 1	-	-	-	-	657	-
Stage 2	-	-	-	-	613	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1131	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	264	14	2	340	2	8	0	0	7	0	10
Future Vol, veh/h	4	264	14	2	340	2	8	0	0	7	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	287	15	2	370	2	9	0	0	8	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	372	0	0	302	0	0	676	671	287	678	685	371
Stage 1	-	-	-	-	-	-	295	295	-	375	375	-
Stage 2	-	-	-	-	-	-	381	376	-	303	310	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1186	-	-	1259	-	-	367	378	752	366	371	675
Stage 1	-	-	-	-	-	-	713	669	-	646	617	-
Stage 2	-	-	-	-	-	-	641	616	-	706	659	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1186	-	-	1259	-	-	359	376	752	364	369	675
Mov Cap-2 Maneuver	-	-	-	-	-	-	359	376	-	364	369	-
Stage 1	-	-	-	-	-	-	710	666	-	643	616	-
Stage 2	-	-	-	-	-	-	629	615	-	703	656	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	15.3	12.5
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	359	1186	-	-	1259	-	-	499
HCM Lane V/C Ratio	0.024	0.004	-	-	0.002	-	-	0.037
HCM Control Delay (s)	15.3	8	0	-	7.9	0	-	12.5
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	269	337	1	4	5
Future Vol, veh/h	2	269	337	1	4	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	292	366	1	4	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	367	0	-	0	663	367
Stage 1	-	-	-	-	367	-
Stage 2	-	-	-	-	296	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1192	-	-	-	426	678
Stage 1	-	-	-	-	701	-
Stage 2	-	-	-	-	755	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1192	-	-	-	425	678
Mov Cap-2 Maneuver	-	-	-	-	425	-
Stage 1	-	-	-	-	700	-
Stage 2	-	-	-	-	755	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1192	-	-	-	536
HCM Lane V/C Ratio	0.002	-	-	-	0.018
HCM Control Delay (s)	8	0	-	-	11.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	457	6	0	397	6	3	0	3	3	0	5
Future Vol, veh/h	9	457	6	0	397	6	3	0	3	3	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	497	7	0	432	7	3	0	3	3	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	439	0	0	504	0	0	955	956	497	958	960	436
Stage 1	-	-	-	-	-	-	517	517	-	436	436	-
Stage 2	-	-	-	-	-	-	438	439	-	522	524	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1121	-	-	1061	-	-	238	258	573	237	257	620
Stage 1	-	-	-	-	-	-	541	534	-	599	580	-
Stage 2	-	-	-	-	-	-	597	578	-	538	530	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1121	-	-	1061	-	-	234	255	573	233	254	620
Mov Cap-2 Maneuver	-	-	-	-	-	-	234	255	-	233	254	-
Stage 1	-	-	-	-	-	-	535	528	-	592	580	-
Stage 2	-	-	-	-	-	-	592	578	-	529	524	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	16.1	14.6
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	332	1121	-	-	1061	-	-	382
HCM Lane V/C Ratio	0.02	0.009	-	-	-	-	-	0.023
HCM Control Delay (s)	16.1	8.2	0	-	0	-	-	14.6
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	458	400	3	2	3
Future Vol, veh/h	5	458	400	3	2	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	498	435	3	2	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	438	0	-	0	945	437
Stage 1	-	-	-	-	437	-
Stage 2	-	-	-	-	508	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1122	-	-	-	291	620
Stage 1	-	-	-	-	651	-
Stage 2	-	-	-	-	604	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1122	-	-	-	289	620
Mov Cap-2 Maneuver	-	-	-	-	289	-
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	604	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	13.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1122	-	-	-	425
HCM Lane V/C Ratio	0.005	-	-	-	0.013
HCM Control Delay (s)	8.2	0	-	-	13.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	281	15	7	398	0	18	0	12	0	0	0
Future Vol, veh/h	0	281	15	7	398	0	18	0	12	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	305	16	8	433	0	20	0	13	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	433	0	0	321	0	0	754	754	305	769	770	433
Stage 1	-	-	-	-	-	-	305	305	-	449	449	-
Stage 2	-	-	-	-	-	-	449	449	-	320	321	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1127	-	-	1239	-	-	326	338	735	318	331	623
Stage 1	-	-	-	-	-	-	705	662	-	589	572	-
Stage 2	-	-	-	-	-	-	589	572	-	692	652	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1127	-	-	1239	-	-	324	335	735	310	328	623
Mov Cap-2 Maneuver	-	-	-	-	-	-	324	335	-	310	328	-
Stage 1	-	-	-	-	-	-	705	662	-	589	567	-
Stage 2	-	-	-	-	-	-	584	567	-	680	652	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	14.4	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	417	1127	-	-	1239	-	-	-
HCM Lane V/C Ratio	0.078	-	-	-	0.006	-	-	-
HCM Control Delay (s)	14.4	0	-	-	7.9	0	-	0
HCM Lane LOS	B	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	299	406	0	0	0
Future Vol, veh/h	0	299	406	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	325	441	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	441	0	-	0	766	441
Stage 1	-	-	-	-	441	-
Stage 2	-	-	-	-	325	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1119	-	-	-	371	616
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	732	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1119	-	-	-	371	616
Mov Cap-2 Maneuver	-	-	-	-	371	-
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	732	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1119	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	504	19	14	406	0	14	0	8	0	0	0
Future Vol, veh/h	0	504	19	14	406	0	14	0	8	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	548	21	15	441	0	15	0	9	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	441	0	0	569	0	0	1019	1019	548	1034	1040	441
Stage 1	-	-	-	-	-	-	548	548	-	471	471	-
Stage 2	-	-	-	-	-	-	471	471	-	563	569	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1119	-	-	1003	-	-	215	237	536	210	230	616
Stage 1	-	-	-	-	-	-	521	517	-	573	560	-
Stage 2	-	-	-	-	-	-	573	560	-	511	506	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1119	-	-	1003	-	-	212	232	536	203	225	616
Mov Cap-2 Maneuver	-	-	-	-	-	-	212	232	-	203	225	-
Stage 1	-	-	-	-	-	-	521	517	-	573	549	-
Stage 2	-	-	-	-	-	-	562	549	-	503	506	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	19.5	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	272	1119	-	-	1003	-	-	-
HCM Lane V/C Ratio	0.088	-	-	-	0.015	-	-	-
HCM Control Delay (s)	19.5	0	-	-	8.6	0	-	0
HCM Lane LOS	C	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	522	414	0	0	0
Future Vol, veh/h	0	522	414	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	567	450	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	450	0	-	0	1017	450
Stage 1	-	-	-	-	450	-
Stage 2	-	-	-	-	567	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1110	-	-	-	263	609
Stage 1	-	-	-	-	642	-
Stage 2	-	-	-	-	568	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1110	-	-	-	263	609
Mov Cap-2 Maneuver	-	-	-	-	263	-
Stage 1	-	-	-	-	642	-
Stage 2	-	-	-	-	568	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1110	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	283	15	7	403	2	18	0	12	7	0	10
Future Vol, veh/h	4	283	15	7	403	2	18	0	12	7	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	308	16	8	438	2	20	0	13	8	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	440	0	0	324	0	0	777	772	308	786	787	439
Stage 1	-	-	-	-	-	-	316	316	-	455	455	-
Stage 2	-	-	-	-	-	-	461	456	-	331	332	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1120	-	-	1236	-	-	314	330	732	310	324	618
Stage 1	-	-	-	-	-	-	695	655	-	585	569	-
Stage 2	-	-	-	-	-	-	581	568	-	682	644	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1120	-	-	1236	-	-	306	326	732	301	320	618
Mov Cap-2 Maneuver	-	-	-	-	-	-	306	326	-	301	320	-
Stage 1	-	-	-	-	-	-	692	652	-	583	564	-
Stage 2	-	-	-	-	-	-	566	563	-	667	641	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	14.8	13.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	399	1120	-	-	1236	-	-	431
HCM Lane V/C Ratio	0.082	0.004	-	-	0.006	-	-	0.043
HCM Control Delay (s)	14.8	8.2	0	-	7.9	0	-	13.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	306	408	1	4	5
Future Vol, veh/h	2	306	408	1	4	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	333	443	1	4	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	444	0	-	0	781	444
Stage 1	-	-	-	-	444	-
Stage 2	-	-	-	-	337	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1116	-	-	-	363	614
Stage 1	-	-	-	-	646	-
Stage 2	-	-	-	-	723	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1116	-	-	-	362	614
Mov Cap-2 Maneuver	-	-	-	-	362	-
Stage 1	-	-	-	-	645	-
Stage 2	-	-	-	-	723	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	12.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1116	-	-	-	469
HCM Lane V/C Ratio	0.002	-	-	-	0.021
HCM Control Delay (s)	8.2	0	-	-	12.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	509	19	14	409	6	14	0	8	3	0	5
Future Vol, veh/h	9	509	19	14	409	6	14	0	8	3	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	553	21	15	445	7	15	0	9	3	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	452	0	0	574	0	0	1054	1055	553	1067	1073	449
Stage 1	-	-	-	-	-	-	573	573	-	479	479	-
Stage 2	-	-	-	-	-	-	481	482	-	588	594	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1109	-	-	999	-	-	204	226	533	200	220	610
Stage 1	-	-	-	-	-	-	505	504	-	568	555	-
Stage 2	-	-	-	-	-	-	566	553	-	495	493	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1109	-	-	999	-	-	197	219	533	192	213	610
Mov Cap-2 Maneuver	-	-	-	-	-	-	197	219	-	192	213	-
Stage 1	-	-	-	-	-	-	498	497	-	561	544	-
Stage 2	-	-	-	-	-	-	550	542	-	481	487	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	20.5	16
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	256	1109	-	-	999	-	-	336
HCM Lane V/C Ratio	0.093	0.009	-	-	0.015	-	-	0.026
HCM Control Delay (s)	20.5	8.3	0	-	8.7	0	-	16
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	525	420	3	2	3
Future Vol, veh/h	5	525	420	3	2	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	571	457	3	2	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	460	0	-	0	1040	459
Stage 1	-	-	-	-	459	-
Stage 2	-	-	-	-	581	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1101	-	-	-	255	602
Stage 1	-	-	-	-	636	-
Stage 2	-	-	-	-	559	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1101	-	-	-	253	602
Mov Cap-2 Maneuver	-	-	-	-	253	-
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	559	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	14.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1101	-	-	-	388
HCM Lane V/C Ratio	0.005	-	-	-	0.014
HCM Control Delay (s)	8.3	0	-	-	14.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	820	16	8	1583	0	19	0	13	0	0	0
Future Vol, veh/h	0	820	16	8	1583	0	19	0	13	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	891	17	9	1721	0	21	0	14	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1721	0	0	908	0	0	1779	2639	454	2185	2647	861
Stage 1	-	-	-	-	-	-	900	900	-	1739	1739	-
Stage 2	-	-	-	-	-	-	879	1739	-	446	908	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	364	-	-	745	-	-	52	23	553	25	23	299
Stage 1	-	-	-	-	-	-	300	355	-	90	140	-
Stage 2	-	-	-	-	-	-	309	140	-	561	352	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	364	-	-	745	-	-	52	23	553	24	23	299
Mov Cap-2 Maneuver	-	-	-	-	-	-	52	23	-	24	23	-
Stage 1	-	-	-	-	-	-	300	355	-	90	138	-
Stage 2	-	-	-	-	-	-	305	138	-	547	352	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	78	0
HCM LOS			F	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	82	364	-	-	745	-	-	-
HCM Lane V/C Ratio	0.424	-	-	-	0.012	-	-	-
HCM Control Delay (s)	78	0	-	-	9.9	-	-	0
HCM Lane LOS	F	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	1.7	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	833	1583	0	0	0
Future Vol, veh/h	0	833	1583	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	905	1721	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1721	0	-	0	2174	861
Stage 1	-	-	-	-	1721	-
Stage 2	-	-	-	-	453	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	364	-	-	-	40	299
Stage 1	-	-	-	-	130	-
Stage 2	-	-	-	-	607	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	364	-	-	-	40	299
Mov Cap-2 Maneuver	-	-	-	-	40	-
Stage 1	-	-	-	-	130	-
Stage 2	-	-	-	-	607	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	364	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1504	20	15	1073	0	15	0	9	0	0	0
Future Vol, veh/h	0	1504	20	15	1073	0	15	0	9	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1635	22	16	1166	0	16	0	10	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1166	0	0	1657	0	0	2261	2844	829	2016	2855	583
Stage 1	-	-	-	-	-	-	1646	1646	-	1198	1198	-
Stage 2	-	-	-	-	-	-	615	1198	-	818	1657	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	595	-	-	385	-	-	22	17	314	34	17	456
Stage 1	-	-	-	-	-	-	103	155	-	197	257	-
Stage 2	-	-	-	-	-	-	445	257	-	336	154	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	595	-	-	385	-	-	21	16	314	32	16	456
Mov Cap-2 Maneuver	-	-	-	-	-	-	21	16	-	32	16	-
Stage 1	-	-	-	-	-	-	103	155	-	197	246	-
Stage 2	-	-	-	-	-	-	427	246	-	326	154	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	283.3	0
HCM LOS			F	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	32	595	-	-	385	-	-	-
HCM Lane V/C Ratio	0.815	-	-	-	0.042	-	-	-
HCM Control Delay (s)	283.3	0	-	-	14.8	-	-	0
HCM Lane LOS	F	A	-	-	B	-	-	A
HCM 95th %tile Q(veh)	2.8	0	-	-	0.1	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1513	1073	0	0	0
Future Vol, veh/h	0	1513	1073	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1645	1166	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1166	0	-	0	1989	1166
Stage 1	-	-	-	-	1166	-
Stage 2	-	-	-	-	823	-
Critical Hdwy	4.13	-	-	-	6.63	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.83	-
Follow-up Hdwy	2.219	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	597	-	-	-	60	235
Stage 1	-	-	-	-	295	-
Stage 2	-	-	-	-	393	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	597	-	-	-	60	235
Mov Cap-2 Maneuver	-	-	-	-	60	-
Stage 1	-	-	-	-	295	-
Stage 2	-	-	-	-	393	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	597	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	822	16	8	1588	2	19	0	13	7	0	10
Future Vol, veh/h	4	822	16	8	1588	2	19	0	13	7	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	893	17	9	1726	2	21	0	14	8	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1728	0	0	910	0	0	1791	2656	455	2200	2663	864
Stage 1	-	-	-	-	-	-	910	910	-	1745	1745	-
Stage 2	-	-	-	-	-	-	881	1746	-	455	918	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	361	-	-	744	-	-	51	22	552	25	22	297
Stage 1	-	-	-	-	-	-	296	352	-	90	139	-
Stage 2	-	-	-	-	-	-	308	139	-	554	349	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	361	-	-	744	-	-	48	21	552	24	21	297
Mov Cap-2 Maneuver	-	-	-	-	-	-	48	21	-	24	21	-
Stage 1	-	-	-	-	-	-	293	348	-	89	137	-
Stage 2	-	-	-	-	-	-	293	137	-	534	345	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	87.3	108.4
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	76	361	-	-	744	-	-	52
HCM Lane V/C Ratio	0.458	0.012	-	-	0.012	-	-	0.355
HCM Control Delay (s)	87.3	15.1	-	-	9.9	-	-	108.4
HCM Lane LOS	F	C	-	-	A	-	-	F
HCM 95th %tile Q(veh)	1.9	0	-	-	0	-	-	1.3

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	840	1585	1	4	5
Future Vol, veh/h	2	840	1585	1	4	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	913	1723	1	4	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1724	0	-	0	2185	862
Stage 1	-	-	-	-	1724	-
Stage 2	-	-	-	-	461	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	363	-	-	-	39	298
Stage 1	-	-	-	-	129	-
Stage 2	-	-	-	-	601	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	363	-	-	-	39	298
Mov Cap-2 Maneuver	-	-	-	-	39	-
Stage 1	-	-	-	-	128	-
Stage 2	-	-	-	-	601	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	60.1
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	363	-	-	-	75
HCM Lane V/C Ratio	0.006	-	-	-	0.13
HCM Control Delay (s)	15	-	-	-	60.1
HCM Lane LOS	B	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	1509	20	15	1076	6	15	0	9	3	0	5
Future Vol, veh/h	9	1509	20	15	1076	6	15	0	9	3	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	1640	22	16	1170	7	16	0	10	3	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1177	0	0	1662	0	0	2288	2880	831	2046	2888	589
Stage 1	-	-	-	-	-	-	1671	1671	-	1206	1206	-
Stage 2	-	-	-	-	-	-	617	1209	-	840	1682	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	589	-	-	383	-	-	21	16	313	33	16	452
Stage 1	-	-	-	-	-	-	100	151	-	195	255	-
Stage 2	-	-	-	-	-	-	444	254	-	326	149	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	589	-	-	383	-	-	20	15	313	31	15	452
Mov Cap-2 Maneuver	-	-	-	-	-	-	20	15	-	31	15	-
Stage 1	-	-	-	-	-	-	98	148	-	192	244	-
Stage 2	-	-	-	-	-	-	420	243	-	310	146	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	298.2	60
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	31	589	-	-	383	-	-	74
HCM Lane V/C Ratio	0.842	0.017	-	-	0.043	-	-	0.118
HCM Control Delay (s)	298.2	11.2	-	-	14.8	-	-	60
HCM Lane LOS	F	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	2.8	0.1	-	-	0.1	-	-	0.4

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	1516	1079	3	2	3
Future Vol, veh/h	5	1516	1079	3	2	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	1648	1173	3	2	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1176	0	-	0	2007	1173
Stage 1	-	-	-	-	1173	-
Stage 2	-	-	-	-	834	-
Critical Hdwy	4.13	-	-	-	6.63	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.83	-
Follow-up Hdwy	2.219	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	592	-	-	-	58	233
Stage 1	-	-	-	-	293	-
Stage 2	-	-	-	-	388	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	592	-	-	-	58	233
Mov Cap-2 Maneuver	-	-	-	-	58	-
Stage 1	-	-	-	-	291	-
Stage 2	-	-	-	-	388	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	40.8
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	592	-	-	-	106
HCM Lane V/C Ratio	0.009	-	-	-	0.051
HCM Control Delay (s)	11.1	-	-	-	40.8
HCM Lane LOS	B	-	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	0.2